STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	1	262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
CITY OF WICHITA, KANSAS

GARY JANZEN, P.E. – CITY ENGINEER

C.O.W. PAVING PROJ. NO. 472–85296
O.C.A. No. 707106
C.O.W. WATER PROJ. NO. 448–2020–005520
O.C.A. No. W5018
C.O.W. SAN. SEWER PROJ. NO. 468–2020–005517
O.C.A. No. S0004

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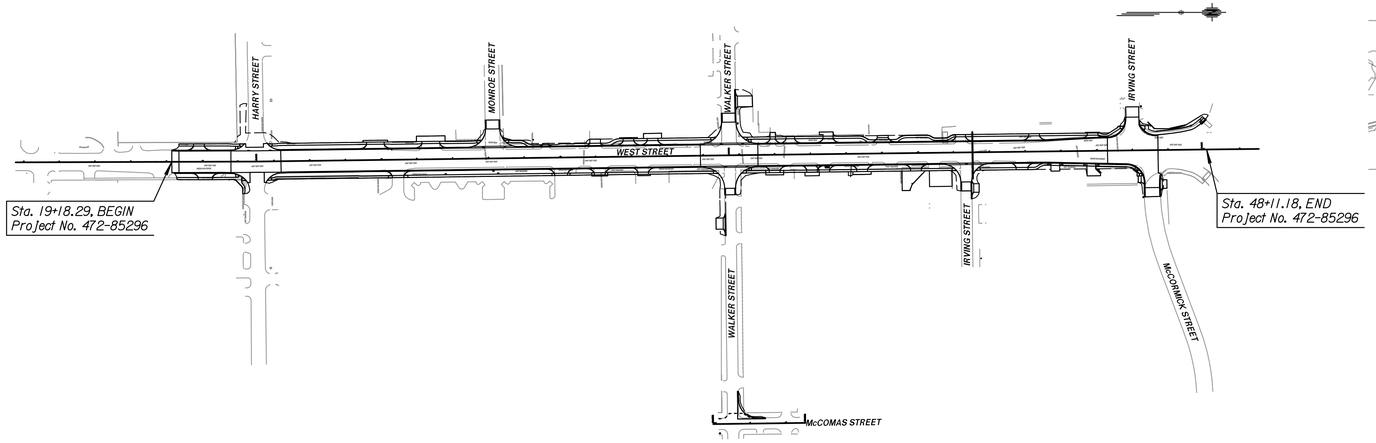
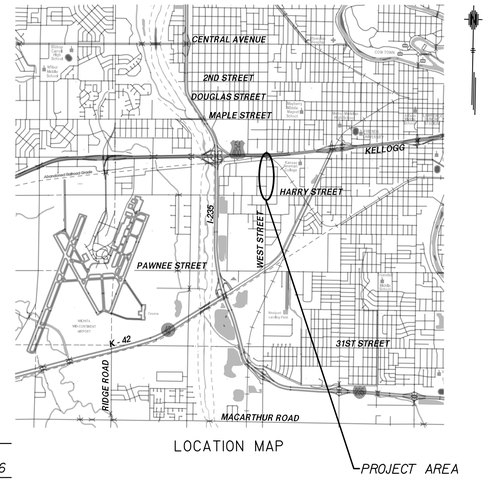
GRADING
CONCRETE PAVEMENT
ASPHALT PAVEMENT
STORM SEWER
PAVEMENT MARKING
SIGNING
TRAFFIC SIGNALIZATION
SEEDING/SODDING
ITS COMMUNICATION





LOCATION MAP

TRAFFIC SHALL BE CARRIED THROUGH CONSTRUCTION AT ALL TIMES ON EXISTING ALIGNMENTS.

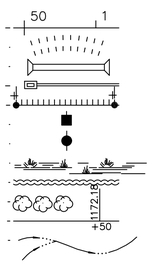
EXISTING ALIGNMENTS ARE TO BE SIGNED AND MAINTAINED BY THE CONTRACTOR

DESIGN DESIGNATION

AADT (2015)	= 16,175
AADT (2045)	= 27,219
V	= 40 MPH
C of A	= NONE
LATERAL OFFSET	= 6.0 FT

CONVENTIONAL SIGNS

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



GROSS LENGTH OF PROJECT	2,892.89 FT.	
EXCEPTIONS	0.00 FT.	
NET LENGTH OF PROJECT	2,892.89 FT.	0.55 MILES
NET LENGTH OF BRIDGES	0.00 FT.	0.00 MILES
NET LENGTH OF ROAD	2,892.89 FT.	0.55 MILES

PREPARED BY
TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

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

GENERAL NOTES

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

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

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

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

A full depth saw cut of the existing pavement thickness shall be provided at locations where proposed construction abuts an existing surface course of pavement where the existing pavement is to be removed. Sawed joint to facilitate removal within six (6) feet of existing joints will not be permitted and for such instances the limits of removal shall extend to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered SUBSIDIARY to the removal of the surface or pavement.

All project waste including any trees, milled asphalt, rubble from miscellaneous structures, abandoned pipes, excess excavation and 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 of 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.

Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed and disposed of by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage. Removal of trees and hedge rows shall be paid for under the appropriate bid items, "Tree Removed, Large", "Tree Removed, Small", "Tree Row, Removed", and "Hedge Row, Removed".

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

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

The Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the Contractor's responsibility to preserve such field locations during the construction process. Water valves, water boxes or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense.

All waterline to be installed on the project shall be restrained joint pipe, unless otherwise specified by the Engineer

Temporary Blowoff Valves necessary to flush line at existing water line tie-ins shall not be paid for directly, but shall be considered INCIDENTAL to other items in the bid.

Where water valves are shown to be adjusted, the work shall include only the adjustment of the water box to the finished grade as shown or as directed by the Engineer. At locations where available adjustment is insufficient to match design grade, the Contractor shall notify the Engineer.

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

Properties within the project limits may have underground sprinkler systems in public right-of-way which conflict with new construction. The Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction of the project. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place.

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

All private entrances/drives shall meet the City of Wichita standard and shall have wing radii of 20' unless otherwise noted on the plans or instructed by the Engineer.

Construction of temporary pavement required for business or residential access during construction shall be SUBSIDIARY to the lump sum bid item "TRAFFIC CONTROL" and shall include all grading, fill, compaction, soil scarification, removal, disposal and etc. necessary for business or residential access.

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

The Contractor shall comply with all applicable safety regulations.

The Contractor is made aware that 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 with the utility companies to locate any existing utilities that have not been previously located. The Contractor shall coordinate the construction of this project with the relocation of any existing utilities by the utility companies.

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

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

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

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

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

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

The Contractor shall understand that utilities may have been relocated to new locations and that additional coordination with Utility Companies may be required. The Contractor shall be required to work around existing utilities within the right-of-way.

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

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

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

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

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

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

The blended concrete transitions for the private entrances shown on the plans, shall be paid for by the bid item, "Concrete Driveway 8" Reinforced", and shall be constructed at the same time the Contractor is constructing the entrance.

All mailboxes removed for construction shall be relocated to a temporary location that is approved by the postmaster. After the work is completed on the project the mailboxes shall be relocated back to near their original positions, as directed by the Engineer. The Contractor is responsible for the coordination and relocation of all mailboxes. This work will be paid for by the bid item, "Mailbox, Removed and Reset".

All sanitary sewer installation, materials, removals and abandonment shall be in accordance with the City of Wichita Specifications for Water and Sewer.

The Contractor shall maintain sanitary sewer service during construction. Any pumping of sewage or alternate methods of construction required during construction necessary to complete the project shall be considered SUBSIDIARY to other items of the contract.

All manholes shall have one of the following liner systems applied: Raven 405, Sauereisen 210S, Spectrashield, Warren Environmental S301, or Zebron, as require by the City of Wichita Specifications. Liner system shall be considered SUBSIDIARY to other items of the contract.

Any dewatering, trench boxes, etc. required during construction necessary to complete the project shall be considered SUBSIDIARY to other items on the contract.

Any work shown in the plans which is not specifically assigned a line item shall be considered SUBSIDIARY to other items of the contract.

The Contractor is required to bypass pump the existing sanitary sewer line while the new sanitary sewer line is being installed. All material and labor needed to bypass pump the line during construction shall be considered SUBSIDIARY to other items on the contract.

The Contractor will encounter abandoned gas lines within the project limits. In many locations, these abandoned gas lines will conflict with the proposed construction. This includes a 12 inch Black Hills (formerly Aquila) line generally along the west side of the road behind the old curb line, and 10 inch and 8 inch Kansas Gas (KGS) lines generally along the east side of the road. Horizontal locations of these lines are shown on the plans as per locations provided by the respective gas companies. The Contractor shall be responsible for removing these lines that conflict with proposed construction. All material and labor needed to accomplish the removal of gas line, capping the existing ends, backfilling, and compacting shall be considered SUBSIDIARY to the bid item "Abandoned Gas Pipeline Removal" as a measured quantity bid item. Both companies have purged their lines such that cutting shall not be a safety concern. Lines that require only partial removal will need to be capped (plate welded or plugged) at each open end. The Contractor is to supply a plan to the Project Engineer for capping the existing gas lines, for approval prior to completing the work. Secondary abandoned gas lines (i.e. 6" and smaller) shall not be included in this bid item, but removal of these shall be considered SUBSIDIARY to other items in the project.

UTILITY OWNERS

AT&T
c/o Shannon Brinkmeyer
154 N. Broadway, Room 210
Wichita, KS 67202
Phone: 316-268-2102

Cox Communications
c/o James Walburn
901 George Washington Blvd.
Wichita, KS 67211
Phone: 316-260-7491

Evergy Transmission
c/o Greg Roy
P.O. Box 208
Wichita, KS 67201
Phone: 316-648-9190

Evergy Distribution
c/o Greg Viecelli
Wichita, KS 67201
Phone:

Black Hills Energy
c/o Kelly Kraus
2330 N. Hoover
Wichita, KS 67205
Phone: 316-941-1628

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

Zayo Group
c/o Jeff Capps
316-833-9032

Level 3 Communications
c/o Ken Hadrick
303-482-9826

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

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

Traffic Signals
City Of Wichita, Traffic Dept.
c/o Michael Armour
City Hall, 455 N. Main, 7th Floor
Wichita, KS 67202
Phone: 316-268-4448

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

Utility Notes:

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

Trans Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: -
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
GENERAL NOTES

SHEET NO.
2
SHEET 2 OF 262

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PROJECT CONTROL AND COORDINATE DATA

POINT NO.	BASELINE STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
101	10+00.00	00.00	N/A	Begin MI Alignment/Section Corner	1677078.23	1634036.08
102	19+18.29	00.00	N/A	Begin Project	1677996.44	1634024.69
103	21+55.95	00.00	N/A	P.I./Section Corner	1678234.09	1634021.74
104	34+76.85	00.00	N/A	P.I./Section Corner	1679554.66	1633991.94
105	48+11.18	00.00	N/A	End Project	1680888.68	1633963.65
106	47+98.91	00.00	N/A	P.I./Section Corner	1680876.42	1633963.91
107	54+98.71	00.00	N/A	End MI Alignment/Section Corner	1681576.06	1633949.01
120	100+00.00	00.00	N/A	Begin M2 Alignment	1679516.95	1634743.73
121	102+57.48	00.00	N/A	End M2 Alignment	1679774.37	1634738.17
201	23+67.99	30.00	Lt.	Type II Special (L=6.2')(W=7.5'), A1a	1678445.40	1633986.96
202	23+75.00	30.00	Lt.	Type II Special (L=6.2')(W=7.5'), A1b	1678452.41	1633986.80
203	25+30.19	29.23	Lt.	Reinforced Concrete Manhole (L=8.0')(W=5.0'), MH1	1678607.58	1633984.07
204	27+13.51	30.00	Lt.	Type II Special (L=6.2')(W=7.5'), A2a	1678790.83	1633979.17
205	27+20.51	30.00	Lt.	Type II Special (L=6.2')(W=7.5'), A2b	1678797.83	1633979.01
206	28+50.46	29.21	Lt.	Reinforced Concrete Manhole (L=8.0')(W=7.0'), MH2	1678927.88	1633976.86
207	31+38.28	30.00	Lt.	Type II Special (L=6.2')(W=9.5'), A3a	1679215.49	1633969.58
208	31+45.29	30.00	Lt.	Type II Special (L=6.2')(W=9.5'), A3b	1679222.50	1633969.42
209	33+70.99	30.00	Lt.	Type II Special (L=6.2')(W=9.5'), A4a	1679448.14	1633964.33
210	33+78.00	30.00	Lt.	Type II Special (L=6.2')(W=9.5'), A4b	1679455.15	1633964.17
211	34+46.49	43.25	Lt.	Reinforced Concrete Manhole (L=9.0')(W=7.0'), MH3	1679523.33	1633949.38
212	35+68.68	43.83	Lt.	Reinforced Concrete Manhole (L=5.0')(W=7.0'), MH4	1679645.54	1633946.17
214	42+57.00	44.37	Lt.	Reinforced Concrete Manhole (L=5.5')(W=5.0'), MH5	1680333.69	1633931.04
215	43+68.30	44.30	Lt.	Reinforced Concrete Manhole (L=5.5')(W=5.0'), MH6	1680444.97	1633928.75
216	23+75.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), B1	1678453.85	1634050.79
217	25+32.00	34.75	Rt.	Reinforced Concrete Manhole (L=5.0')(W=3.0'), MH7	1678610.83	1634047.99
218	26+32.50	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), B3	1678711.29	1634044.98
219	27+17.01	34.00	Rt.	Type IA Curb Inlet (L=15.0')(W=4.0'), B2	1678795.77	1634043.06
220	28+50.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=3.0'), C1	1678928.73	1634040.07
221	30+52.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), C2	1679130.68	1634035.51
222	34+56.40	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), C3	1679235.05	1634033.16
223	33+75.00	34.00	Rt.	Type IA Curb Inlet (L=15.0')(W=4.0'), C4	1679453.60	1634028.23
224	35+62.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), D3	1679640.51	1634024.12
225	37+05.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), D2	1679783.47	1634021.09
226	38+16.47	35.64	Rt.	Reinforced Concrete Manhole (L=4.0')(W=4.0'), MH12	1679894.95	1634020.37
227	38+15.75	57.42	Rt.	Area Inlet (Back Yard), D1a	1679894.70	1634042.16
228	39+00.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=3.0'), D1	1679978.43	1634016.96
229	35+61.43	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A5b	1679638.58	1633960.15
230	35+68.57	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A5a	1679645.72	1633960.00
231	37+02.86	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A6b	1679779.98	1633957.15
232	37+10.00	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A6a	1679787.11	1633957.00
233	38+63.87	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A8a	1679940.95	1633953.74
234	38+71.01	30.00	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A8b	1679948.09	1633953.59
235	42+57.00	34.00	Rt.	Type IA Curb Inlet (L=10.0')(W=4.0'), E5	1680335.35	1634009.39
236	43+35.00	32.04	Rt.	Type I Curb Inlet (L=10.0')(W=4.0'), E4a	1680413.29	1634005.78
237	44+23.01	33.96	Rt.	Type I Curb Inlet (L=10.0')(W=4.0'), E4	1680501.33	1634005.83
238	42+57.00	31.98	Lt.	Type I Curb Inlet (L=10.0')(W=4.0'), A9	1680333.95	1633943.43
239	43+68.70	32.54	Lt.	Type I Curb Inlet (L=10.0')(W=4.0'), A12	1680445.61	1633940.50
240	44+57.64	35.88	Lt.	Type I Curb Inlet (L=10.0')(W=4.0'), A13	1680534.46	1633935.27
241	45+31.01	37.42	Rt.	Type I Curb Inlet (L=10.0')(W=4.0'), E3a	1680609.38	1634007.00
242	45+81.81	39.05	Rt.	Type I Curb Inlet (L=10.0')(W=4.0'), E3	1680660.20	1634007.55
243	46+19.39	45.99	Rt.	Reinforced Concrete Manhole (L=8.5')(W=7.5'), MH8	1680697.91	1634013.69
244	45+23.87	35.95	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A10a	1680600.68	1633933.80
245	45+31.01	35.95	Lt.	Type II Curb Inlet (L=6.3')(W=3.3'), A10b	1680607.81	1633933.65
246	46+20.41	67.76	Rt.	Single Drop Inlet (L=2.0')(W=2.0'), E2	1680699.39	1634035.44
247	27+96.33	88.00	Lt.	Type I Curb Inlet (L=10.0')(W=3.0'), F1	1678872.32	1633919.31
248	28+34.13	90.25	Lt.	Grated Driveway Inlet, F2	1678910.06	1633916.21
249	34+93.10	98.00	Rt.	Type I Curb Inlet (L=10.0')(W=3.0'), G1	1679572.98	1634089.57
250	34+62.97	98.00	Rt.	Type I Curb Inlet (L=10.0')(W=3.0'), G2	1679542.98	1634090.23
251	34+61.97	47.07	Rt.	Reinforced Concrete Manhole (L=7.0')(W=4.0'), MH9	1679540.84	1634039.33
252	30+51.81	28.18	Lt.	Reinforced Concrete Manhole (L=11.0')(W=6.0'), MH15	1679129.08	1633973.35
253	41+23.38	88.05	Rt.	Type I Curb Inlet (L=10.0')(W=3.0'), J1	1680202.90	1634066.26
254	41+51.36	90.21	Rt.	Grated Driveway Inlet, J2	1680230.93	1634067.83
255	41+42.99	46.20	Rt.	Reinforced Concrete Manhole (L=4.0')(W=4.0'), MH11	1680221.62	1634024.01
256	20+63.01	32.19	Rt.	Type I Curb Inlet (L=10.0')(W=4.0'), L1	1678141.56	1634055.07
257	20+78.06	32.00	Lt.	Type I Curb Inlet (L=10.0')(W=4.0'), L2	1678155.81	1633990.67
258	22+22.75	32.00	Lt.	Type I Curb Inlet (L=10.0')(W=6.0'), L3	1678300.15	1633988.20
259	22+75.58	28.56	Lt.	Reinforced Concrete Manhole (L=5.0')(W=5.0'), MH13	1678353.05	1633990.49
260	22+29.13	32.61	Rt.	Type I Curb Inlet (L=10.0')(W=3.0'), K1	1678307.99	1634052.69
261	45+63.56	45.40	Lt.	Reinforced Concrete Manhole (L=9.0')(W=7.5'), MH14	1680640.16	1633923.51
301	14+96.41	40.00	Lt.	Existing R/W Corner	1677574.10	1633989.92
302	17+71.41	40.00	Lt.	Existing R/W Corner	1677849.08	1633986.51
303	17+71.27	50.00	Lt.	Existing R/W Corner	1677848.82	1633976.51
304	21+05.26	50.00	Lt.	Existing R/W Corner	1678182.79	1633972.37
305	21+06.44	50.00	Rt.	Existing R/W Corner	1678185.20	1634072.35
306	21+16.44	50.00	Rt.	Existing R/W Corner	1678195.20	1634072.22
307	22+05.78	50.00	Lt.	Existing R/W Corner	1678282.78	1633970.63
308	22+05.93	50.00	Rt.	Existing R/W Corner	1678285.19	1634070.60
309	27+86.58	50.00	Lt.	Existing R/W Corner	1678863.43	1633957.52
310	28+46.61	40.00	Lt.	Existing R/W Corner	1678923.67	1633966.17
311	30+76.67	50.00	Lt.	Existing R/W Corner	1679153.45	1633950.98
312	30+76.71	40.00	Lt.	Existing R/W Corner	1679153.71	1633960.97
313	32+14.89	50.00	Rt.	Existing R/W Corner	1679293.89	1634047.83
314	32+14.89	40.00	Rt.	Existing R/W Corner	1679293.67	1634037.84
315	34+36.67	50.00	Lt.	Existing R/W Corner	1679513.36	1633942.86
316	34+48.89	40.00	Rt.	Existing R/W Corner	1679527.61	1634032.56
317	35+08.95	40.00	Rt.	Existing R/W Corner	1679587.59	1634031.25
318	35+16.65	40.00	Lt.	Existing R/W Corner	1679593.60	1633951.10
319	35+43.65	40.00	Lt.	Existing R/W Corner	1679620.59	1633950.53

PROJECT CONTROL AND COORDINATE DATA

POINT NO.	BASELINE STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
320	36+10.65	50.00	Lt.	Existing R/W Corner	1679687.37	1633939.11
321	36+10.70	40.00	Lt.	Existing R/W Corner	1679687.63	1633949.11
322	39+67.61	50.00	Lt.	Existing R/W Corner	1680044.25	1633931.55
323	39+67.73	30.00	Lt.	Existing R/W Corner	1680044.79	1633951.54
324	41+07.61	50.00	Lt.	Existing R/W Corner	1680184.22	1633928.58
325	41+07.73	30.00	Lt.	Existing R/W Corner	1680184.76	1633948.57
326	41+08.95	40.00	Rt.	Existing R/W Corner	1680187.46	1634018.53
327	41+73.95	40.00	Rt.	Existing R/W Corner	1680252.44	1634017.15
328	43+11.87	50.00	Lt.	Existing R/W Corner	1680388.42	1633924.25
329	43+11.93	40.00	Lt.	Existing R/W Corner	1680388.69	1633934.24
330	43+18.95	40.00	Rt.	Existing R/W Transition	1680397.41	1634014.08
331	44+67.91	50.00	Lt.	Existing R/W Corner	1680544.43	1633920.94
332	44+67.98	40.00	Lt.	Existing R/W Corner	1680544.71	1633930.94
333	44+68.94	51.35	Rt.	Existing R/W Corner	1680547.61	1634022.25
334	44+68.95	40.00	Rt.	Existing R/W Corner	1680547.38	1634010.90
335	45+55.34	50.00	Lt.	Existing R/W Corner	1680631.85	1633919.09
336	45+75.73	65.03	Lt.	Existing R/W Corner	1680651.91	1633903.63
337	46+45.77	60.00	Lt.	Existing R/W Corner	1680722.04	1633907.17
338	46+18.95	40.00	Rt.	Existing R/W Corner	1680697.34	1634007.72
339	47+38.65	59.93	Lt.	Existing R/W Corner	1680814.90	1633905.28
340	47+98.38	95.85	Lt.	Existing R/W Corner	1680873.85	1633868.09
341	48+11.46	142.84	Lt.	Existing R/W Corner	1680885.93	1633820.84
342	46+98.95	80.00	Rt.	Existing R/W Corner	1680778.18	1634046.01
343	47+47.41	80.00	Rt.	Existing R/W Corner	1680826.63	1634044.99
401	43+53.88	32.50	Lt.	Begin Taper (Back of Curb)	1680430.80	1633940.85
402	43+63.10	32.50	Rt.	Begin Taper (Back of Curb)	1680441.39	1634005.64
403	45+87.13	39.68	Rt.	End Taper (Back of Curb)	1680665.53	1634008.07
404	46+75.35	42.81	Lt.	End Taper (Back of Curb)	1680751.98	1633923.73
405	100+70.96	90.77	Lt.	Begin Taper (Back of Curb)	1679585.94	1634651.45
406	100+71.96	64.65	Lt.	End Taper (Back of Curb)	1679587.50	1634677.54
407	101+20.23	16.58	Lt.	Begin Taper (Back of Curb)	1679636.79	1634724.56
408	101+45.89	15.71	Lt.	End Taper (Back of Curb)	1679662.47	1634724.87
501	20+82.73	88.88	Rt.	56.0' Rad. of SE Cor. of Harry St. & West St. (Back of Curb)	1678161.98	1634111.52
502	20+83.63	82.50	Lt.	50.0' Rad. of SW Cor. of Harry St. & West St. (Back of Curb)	1678160.75	1633940.14
503	22+23.23	80.00	Lt.	47.5' Rad. of NW Cor. of Harry St. & West St. (Back of Curb)	1678299.55	1633940.24
504	22+23.58	80.50	Rt.	47.5' Rad. of NE Cor. of Harry St. & West St. (Back of Curb)	1678303.52	1634100.69
505	27+45.96	82.50	Lt.	50.0' Rad. of SW Cor. of Monroe St. & West St. (Back of Curb)	1678822.09	1633925.95
506	28+86.63	82.50	Lt.	50.0' Rad. of NW Cor. of Monroe St. & West St. (Back of Curb)	1678962.72	1633922.77
507	33+96.07	115.00	Rt.	82.5' Rad. of SE Cor. of Walker St. & West St. (Back of Curb)	1679476.49	1634108.73
508	33+96.13	92.50	Lt.	60.0' Rad. of SW Cor. of Walker St. & West St. (Back of Curb)	1679471.87	1633901.28
509	34+02.58	92.50	Rt.	60.0' Rad. of SE Cor. of Walker St. & West St. (Back of Curb)	1679482.49	1634086.09
510	35+53.55	92.5	Rt.	60.0' Rad. of NE Cor. of Walker St. & West St. (Back of Curb)	1679633.30	1634082.79
511	35+56.88	92.50	Lt.	60.0' Rad. of NW Cor. of Walker St. & West St. (Back of Curb)	1679632.71	1633897.76
512	35+60.58	114.70	Rt.	82.5' Rad. of NE Cor. of Walker St. & West St. (Back of Curb)	1679640.80	1634104.84
513	40+72.86	82.50	Rt.	50.0' Rad. of SE Cor. of Irving Ave. & West St. (Back of Curb)	1680152.28	1634061.78
514	42+03.82	82.50	Rt.	50.0' Rad. of NE Cor. of Irving Ave. & West St. (Back of Curb)	1680283.21	1634059.01
515	45+33.97	88.45	Lt.	50.0' Rad. of SW Cor. of Irving St. & West St. (Back of Curb)	1680609.66	1633881.10
516	45+85.53	89.65	Rt.	50.0' Rad. of SE Cor. of McCormic St. & West St. (Back of Curb)	1680664.99	1634058.07
517	46+70.57	92.64	Lt.	50.0' Rad. of NW Cor. of Irving St. & West St. (Back of Curb)	1680746.14	1633874.01
518	101+21.92	66.55	Lt.	50.0' Rad. Of NW Cor. Of West St. & McComas St. (Back of Curb)	1679637.41	1634674.56

Beginning profile PRM01 description:

	STATION	ELEV	GRADE	TOTAL L	BACK L	AHEAD L
VPI 1	19+18.29	1,298.5382				
VPI 2	21+55.00	1,298.8189	0.1186			
VPC	24+75.00	1,299.5377	0.2246	K = 158.9	SSD = 1764.3	
High Point	25+10.69	1,299.5778				
VPI 3	25+25.00	1,299.6500		99.9995	49.9998	49.9998
VPT	25+75.00	1,299.4476	-0.4048			
VPC	26+71.77	1,299.0559	-0.4048	K = 111.7		
Low Point	27+16.99	1,298.9644				
VPI 4	27+21.77	1,298.8535		100.0000	50.0000	50.0000
VPT	27+71.77	1,299.0987	0.4903			
VPC	29+13.77	1,299.7949	0.4903	K = 143.3	SSD = 1596.0	
VPI 5	29+63.77	1,300.0400		100.0000	50.0000	50.0000
High Point	29+84.02	1,299.9671				
VPT	30+13.77	1,299.9362	-0.2076			
VPC	30+86.09	1,299.7860	-0.2076	K = 245.3		
VPI 6	31+36.09	1,299.6822		100.0000	50.0000	50.0000
Low Point	31+37.03	1,299.7331				
VPT	31+86.09	1,299.7822	0.2000			
VPI 7	40+65.00	1,301.5400	0.2000			
VPC	45+74.71	1,300.1942	-0.2640	K = 204.2		
VPI 8	46+24.71	1,300.0621		100.0001	50.0001	50.0001
Low Point	46+28.63	1,300.1230				
VPT	46+74.71	1,300.1750	0.2256			
VPI 9	46+75.35	1,300.1764	0.2256			

Ending profile PRM01 description

West Street - Chain MI description

Point 101 - N: 1,677,078.23, E: 1,634,036.08 Sta 10+00.00

Course from 101 to 102 - N 0°42'40"W, Dist 1,155.95

Point 103 - N: 1,678,234.09, E: 1,634,021.74 Sta 21+55.95

Course from 103 to 104 - N 1°17'34"W, Dist 1,320.90

Point 104 - N: 1,679,554.66, E: 1,633,991.94 Sta 34+76.85

Course from 104 to 106 - N 1°12'53"W, Dist 1,322.06

Point 106 - N: 1,680,876.42, E: 1,633,963.91 Sta 47+98.91

Course from 106 to 107 - N 1°13'13"W, Dist 699.80

Point 107 - N: 1,681,576.06, E: 1,633,949.01 Sta 54+98.71

Ending chain MI description

McComas Street - Chain M2 description

Point 201 - N: 1,679,516.95, E: 1,634,743.73 Sta. 100+00.00

Course from 201 to 202 N 1°14'10"W, Dist 257.48

Point 202 - N: 1,679,774.37, E: 1,634,738.17 Sta. 102+57.48

Ending chain M2 description

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO: 472-85296
SCALE: -
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

COORDINATE & GEOMETRIC DATA

SHEET NO.
3
SHEET 3 OF 262

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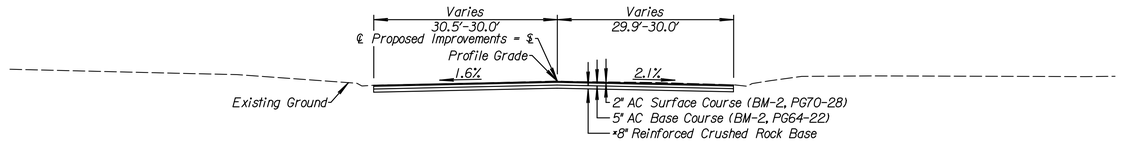
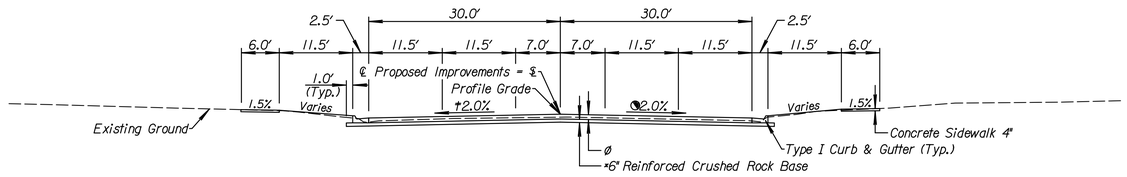
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



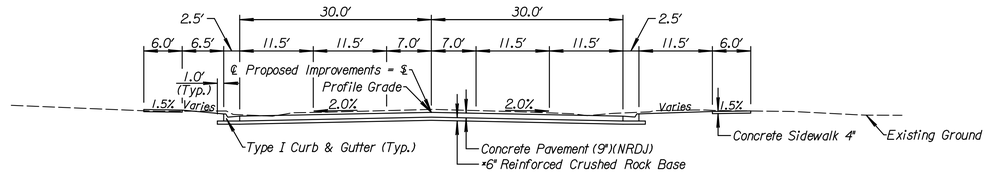
TYPICAL SECTION

Sta. 19+18.29 to Sta. 19+38.29



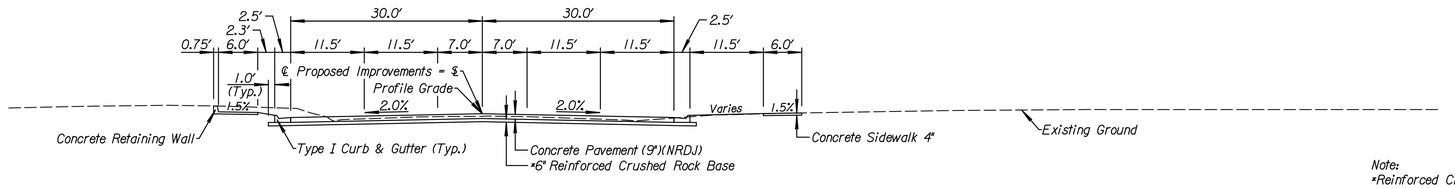
TYPICAL SECTION

Sta. 19+38.29 to Sta. 29+08.40
Sta. 30+87.57 to Sta. 40+28.12
øSta. 19+38.29 to Sta 20+83.60 - Concrete Pavement (9")(NRDJ)
øSta. 20+83.60 to Sta. 22+23.43 - Concrete Pavement (9")(Reinforced)
øSta. 22+23.43 to Sta. 29+08.40 - Concrete Pavement (9")(NRDJ)
øSta. 30+87.57 to Sta. 33+96.13 - Concrete Pavement (9")(NRDJ)
øSta. 33+96.13 to Sta. 35+56.88 - Concrete Pavement (9")(Reinforced)
øSta. 35+56.88 to Sta. 40+28.12 - Concrete Pavement (9")(NRDJ)
øSta. 41+10.37 to Sta. 43+27.27 - Concrete Pavement (9")(NRDJ)
ø†Sta. 19+38.29 to Sta. 23+00.00 - Cross Slope Varies: See Cross Sections
†Sta. 19+38.29 to Sta. 23+00.00 - Cross Slope Varies: See Cross Sections
Sta. 20+92.53 to Sta. 21+15.71, Rt. - Const. Sidewalk Edge Curb
Sta. 21+99.84 to Sta. 24+39.11, Rt. - Const. Sidewalk Edge Curb
Sta. 25+35.86 to Sta. 26+02.99, Lt. - Const. Sidewalk Edge Curb
Sta. 26+82.94 to Sta. 27+03.35, Lt. - Const. Sidewalk Edge Curb
Sta. 27+03.35 to Sta. 27+84.60, Lt. - Const. Concrete Retaining Wall
Sta. 28+46.56 to Sta. 29+08.40, Lt. - Const. Concrete Retaining Wall
Sta. 39+59.80 to Sta. 40+28.12, Lt. - Const. Sidewalk Edge Curb
Sta. 37+67.40 to Sta. 38+53.33, Lt. - Const. Sidewalk Edge Curb



TYPICAL SECTION

Sta. 29+08.40 to Sta. 30+87.57
Sta. 29+08.40 to Sta. 29+27.04, Lt. - Const. Concrete Retaining Wall



TYPICAL SECTION

Sta. 40+28.12 to Sta. 41+10.37
Sta. 40+28.12 to Sta. 40+92.45, Lt. - Const. Concrete Retaining Wall
Sta. 40+92.45 to Sta. 41+07.61, Lt. - Const. Sidewalk Edge Curb

Note:
**Reinforced Crushed Rock Base Shall be Reinforced with approved geogrid. Geogrid is SUBSIDIARY to Reinforced Crushed Rock Base Bid Item*

The Sections Shown are Typical. See Plans and Cross Sections for Variations

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: -
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
TYPICAL SECTIONS

SHEET NO.
4
SHEET 4 OF 262

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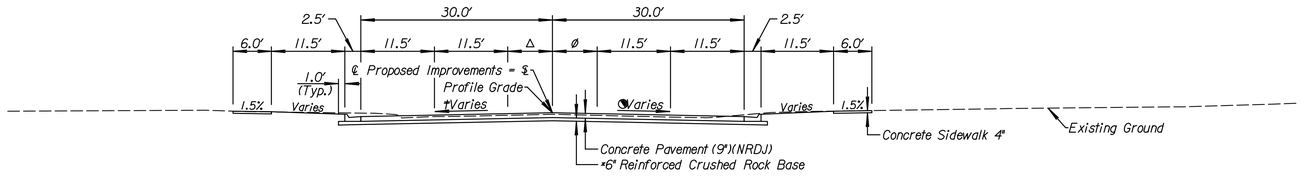
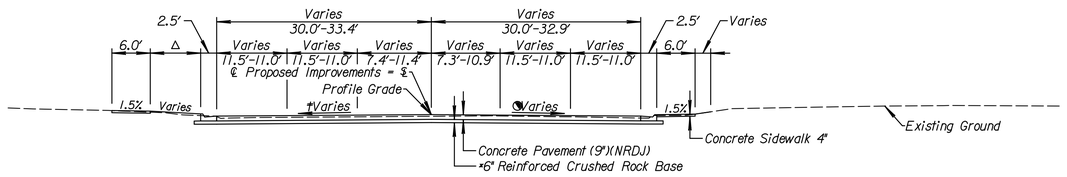
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



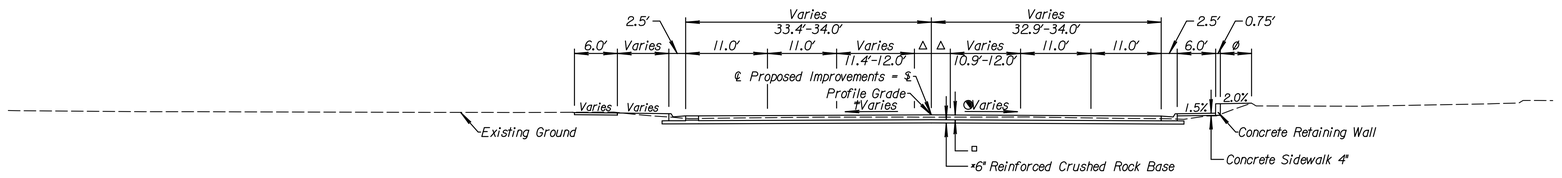
TYPICAL SECTION

Sta. 41+10.37 to Sta. 43+27.28
†Sta. 42+03.82 to Sta. 43+27.28 - Cross Slope Varies: See Cross Sections
◔Sta. 42+03.82 to Sta. 43+27.28 - Cross Slope Varies: See Cross Sections
ΔVaries from 7.0'-7.4'
ØVaries from 7.0'-7.3'



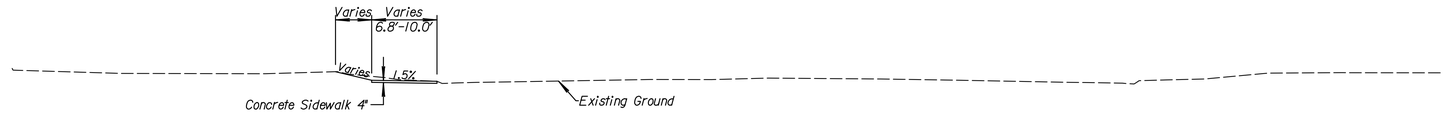
TYPICAL SECTION

Sta. 43+27.28 to Sta. 44+54.20
◔Cross Slope Varies: See Cross Sections
†Cross Slope Varies: See Cross Sections
ΔVaries from 11.5'-7.7'



TYPICAL SECTION

Sta. 44+54.20 to Sta. 46+75.35
□Sta. 44+54.20 to Sta 45+33.97 - Concrete Pavement (9")(NRDJ)
□Sta. 45+33.97 to Sta. 46+75.35 - Concrete Pavement (9")(Reinforced)
◔Cross Slope Varies: See Cross Sections
†Cross Slope Varies: See Cross Sections
ΔVaries from 0.0'-6.0'
ØSta. 45+01.35 to Sta. 45+86.92, Rt. - Varies from 6.5' to 3.7'



TYPICAL SECTION

Sta. 46+75.35 to Sta. 48+11.18

Note:
**Reinforced Crushed Rock Base Shall be Reinforced with approved geogrid. Geogrid is SUBSIDIARY to Reinforced Crushed Rock Base Bid Item*

The Sections Shown are Typical. See Plans and Cross Sections for Variations

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
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DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
TYPICAL SECTIONS

SHEET NO.
5
SHEET 5 OF 262

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

LEGEND

- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

Note:

(XXX) For the project control and coordinate data, See Sheet 3

For the storm sewer plan & profile sheets, See Sheets 13-25

For the water line plan and profile sheets, See Sheets 223-229

SCALE

20' 0 20' 40'

1"=20'

+0.12% ℄

Sta. 19+18.29
P.V.I. Elev. = 1,298.54
Match Existing

Price Truckline
1625 S. West St.
Wichita, KS 67213

Sta. 19+38.28, 47.00' Lt.
Const. 6.0' Concrete Sidewalk 4"
Elevation = 1299.73

Sta. 19+38.28
End 7" AC Pavement
(5" Bitunimous Base)
Begin Concrete Pavement (9")(NRDJ)
See Sheet 53 & 54

Exist. 50' Bldg. Setback

Sta. 19+18.30, 33.19' Lt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1298.25
Match Existing

Sta. 19+18.29
Begin 7" AC Pavement
(5" Bitunimous Base)
Saw Cut Neat Line
Match Existing

Sta. 19+94.30 Lt.
℄ 8" Concrete Drive
30.0' Width

Temp. Esmt.

Exist. R/W

1299.67

1299.20

BLACK HILLS

Const. Limits

1298.33

1298.01

1297.97

1298.03

65.0' BOC to BOC

100' R/W to R/W

50' ℄ to R/W

50' ℄ to R/W

1298.57

1298.63

1297.97

1298.03

1298.33

1298.01

W.V.

1299.67

1299.09

Const. Limits

Exist. R/W

Temp. Esmt.

MATCHLINE STA. 20+00.00

Richard D. & Tracey M. Free, Rev. Trust
1655 S. West St.
Wichita, KS 67213

BOUNOUS STREET

Helevn V Sellers, Trust No. 1
1645 S. West St.
Wichita, KS 67213

Exist. Utility Esmt.

301

303

302

Exist. R/W

WESTAR

4 15 6 7 WEST STREET 8 9

℄ Proposed Improvements = ℄

102

AT&T DUCT BANK

BM #14-16

WESTAR

Exist. R/W

Sta. 18+49.66, 38.76' Rt.
Remove Exist. Loop Detector
Manhole

Sta. 19+18.29
Begin Project No. 472-85296

Sta. 19+25.23, 32.55' Rt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1298.21
Match Existing

Sta. 19+32.59, 46.39' Rt.
Const. 6.0' Concrete Sidewalk 4"
Match Existing Sidewalk

Exist. 30' Bldg. Setback

Sta. 19+75.38, 36.94' Rt.
Remove Exist. Loop Detector
Manhole

BOUNOUS STREET

Exist. 30' Bldg. Setback

Exist. Utility Esmt.

WESTAR

Stoney Mott
1702 S. West St.
Wichita, KS 67213

1652 LLC
1652 S. West St.
Wichita, KS 67213

1632 LLC
1632 S. West St.
Suites 1 - 7
Wichita, KS 67213

BM #14-16
Set "X" cut in northeast corner of curb inlet at the southeast corner of West Street and Bounous Street
N 1,677,591.2070
E 1,634,060.3060
30.59' Rt., Sta. 15+12.64, Elev. = 1297.83

S Quarter Corner Sec. 25-T27S-R1W
Found nail in manhole lid at intersection of Harry & Sheridan
Northing = 1678292.4775
Easting = 1636654.1093

1. 3 nails in east face of guy pole	53.75' NE
2. 40d nail with washer at east face of power pole	33.95' SE
3. 40d nail at northwest face of power pole	37.10' NW
4. "+" cut on concrete pavement	2.70' SW
5. "+" cut on concrete pavement	3.00' NW
3 nailes in east face of power pole	52.03' NW

SW Corner Sec. 25-T27S-R1W
3/4" iron pipe in thimble @ Harry and West Street Intersection
Northing = 1678234.0940
Easting = 1634021.7365

1. Top center bolt of fire hydrant	65.88' NE
2. "+" cut on small retaining wall	63.65' SE
3. "+" cut on corner of curb inlet	60.78' SW
4. "+" cut on corner of curb inlet	58.82' NW

W Quarter Corner Sec. 36-T27S-R1W
1" iron pipe in thimble
Northing = 1675595.4175
Easting = 1634054.4865

1. 60d naile in southeast face of power pole	76.95' NE
2. Mat nail and shiner in southwest face of power pole	53.22' SE
3. Railroad spike in east face of power pole	54.80' SW
4. North gate post of chainlink fence hinge bolt	50.35' W

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
PLAN & PROFILE
STA. 19+18.29 TO
STA. 20+00.00

SHEET NO.

6

SHEET 6 OF 262

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+0.12% ℄ | +0.22% ℄ | VC = 100′, K = 159 | +0.22% ℄ | -0.40% ℄ | -0.40% ℄

Sta. 21+55.00
P.V.I. Elev. = 1,298.82

Sta. 24+75.00
P.V.C. Elev. = 1,299.54

Sta. 25+25.00
P.V.I. Elev. = 1,299.65

Sta. 25+75.00
P.V.T. Elev. = 1,299.45

LEGEND

- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

SCALE
20′ 0 20′ 40′
1"=20′

(XXX) Note:
For the project control and coordinate data, See Sheet 3

For the storm sewer plan & profile sheets, See Sheets 13-25

For temporary traffic signal layouts and details, See Sheets 161-176

For the Harry Street traffic signal improvements, See Sheets 197-199

For ITS Communications Duct Bank layout and details, See Sheets 210-213

For the water line plan and profile sheets, See Sheets 223-229

The Valero sign and all necessary appurtances to the sign at Sta. 21+08.40, 58.33′ Rt. shall be relocated prior to the beginning of the project. The Contractor is not responsible for the relocation of this sign.

The Contractor shall match existing joint patterns when sawcutting and replacing the concrete pavement within the intersection of Harry Street and West Street, as shown on the plans or according to the Engineer.

The Contractor shall construct the pedestrain push button concrete with the sidewalk. For more information on the the pedestrian push button detail, See Sheet 207

Price Truckline
1625 S. West St.
Wichita, KS 67213

Harper Trucks Inc.
1551 S. West St.
Wichita, KS 67213

Sta. 21+21.82, 50.22′ Lt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1298.40
Match Existing Curb Inlet

Sta. 21+08.33, 46.02′ Lt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 20+99.61, 43.02′ Lt.
Const. Wheelchair Ramp
See Sheet 50

Sta. 20+83.60
End Concrete Pavement (9")(NRDJ)
Begin Concrete Pavement (9")(Reinforced)
See Sheet 52

Sta. 21+85.91, 50.62′ Lt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1298.24
Match Existing Curb Inlet

Sta. 21+99.38, 46.03′ Lt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 22+03.92, 37.39′ Lt.
Adjust Exist. Sanitary Manhole
Exist. Elev. = 1298.43
Prop. Elev. = 1298.32
Difference = +0.11′

Sta. 22+17.79, 41.07′ Lt.
Adjust Exist. Traffic Manhole
Exist. Elev. = 1299.26
Prop. Elev. = 1298.83
Difference = -0.43′

Sta. 22+92.22, 39.08′ Lt.
Remove Exist. Loop Detector Manhole

Sta. 24+53.48, 55.00′ Lt. to
Sta. 25+22.46, 55.00′ Lt.
Saw Cut Neat Line
Const. Concrete Blended Transition for Concrete Entrance
Match Existing

Sta. 24+26.90, 37.81′ Lt.
Remove Exist. Loop Detector Manhole

Sta. 25+35.86, 50.00′ Lt. to
Sta. 26+02.99, 50.00′ Lt.
Const. Concrete Edge Curb (8")
See Sheet 51

Sta. 24+87.97′ Lt.
℄ 8′ Concrete Drive
49.0′ Width

Sta. 25+50.42′ Rt.
℄ 8′ Concrete Drive
31.0′ Width

Sta. 20+11.91′ Rt.
℄ 8′ Concrete Drive
40.0′ Width

Sta. 20+91.97, 50.00′ Rt. to
Sta. 21+15.88, 59.66′ Rt.
Remove Exist. Retaining Wall

Sta. 21+00.47, 44.00′ Rt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 20+92.58, 50.79′ Rt. to
Sta. 21+15.71, 75.44′ Rt.
Const. Concrete Edge Curb (8")
See Sheet 51

Sta. 21+13.23, 49.43′ Rt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 21+30.46, 59.78′ Rt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1299.00
Match Existing

Sta. 21+18.67, 89.77′ Rt.
Const. 6.0′ Concrete Sidewalk 4"
Match Existing

Sta. 22+23.43
End Concrete Pavement (9")(Reinforced)
Begin Concrete Pavement (9")(NRDJ)
See Sheet 53 & 54

Sta. 22+31.32, 32.99′ Rt. to
Sta. 22+44.32, 32.50′ Rt.
Taper Curb & Gutter

Sta. 21+99.84, 52.90′ Rt. to
Sta. 24+39.11, 50.00′ Rt.
Const. Concrete Edge Curb (8")
See Sheet 51

Sta. 21+96.70, 49.23′ Rt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 21+81.17, 59.11 Rt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1298.87
Match Existing

Sta. 25+23.18, 47.00′ Rt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

Sta. 25+77.65, 47.00′ Rt.
Const. Wheelchair Ramp
Const. 6.0′ Concrete Sidewalk 4"
See Sheet 50

1622 LLC
1622 S. West St.
Wichita, KS 67213

Foley Industries Inc.
1580 S. West St.
Wichita, KS 67213

BM #13-16
Found "+" cut on top corner of retaining wall at the southeast corner of West Street and Harry Street
N 1,678,195.2044
E 1,634,072.2444
50.02′ Rt., Sta. 21+16.44, Elev. = 1300.08

S Quarter Corner Sec. 26-T27S-R1W
2" pipe with 1/2" bar ±0.4' blow gravel road
Northing = 1678165.3037
Easting = 1631387.8373

1. Mag nail and shiner in east face of fence post near base	30.94′ N
2. "+" cut in top of gas meter tee fitting	72.76′ ENE
3. Nail and washer in east face of power pole	26.26′ S
4. Mag nail and shiner in east face of power pole	99.54′ WNW

SW Corner Sec. 25-T27S-R1W
3/4" iron pipe in thimble @ Harry and West Street Intersection
Northing = 1678234.0940
Easting = 1634021.7365

1. Top center bolt of fire hydrant	65.88′ NE
2. "+" cut on small retaining wall	63.65′ SE
3. "+" cut on corner of curb inlet	60.78′ SW
4. "+" cut on corner of curb inlet	58.82′ NW

W Quarter Corner Sec. 36-T27S-R1W
1" iron pipe in thimble
Northing = 1675595.4175
Easting = 1634054.4865

1. 60d naile in southeast face of power pole	76.95′ NE
2. Mat nail and shiner in southwest face of power pole	53.22′ SE
3. Railroad spike in east face of power pole	54.80′ SW
4. North gate post of chainlink fence hinge bolt	50.35′ W

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

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TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20′
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
PLAN & PROFILE
STA. 20+00.00 TO
STA. 26+00.00

SHEET NO.
7
SHEET 7 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS
CITY OF WICHITA

VC = 100'
K = 112

VC = 100'
K = 143

VC = 100'
K = 143

-0.40% ℄ | -0.40% ℄ | +0.49% ℄ | +0.49% ℄ | -0.21% ℄ | -0.21% ℄ | +0.20% ℄

Sta. 26+71.77 P.V.C. Elev. = 1,299.06
Sta. 27+21.77 P.V.I. Elev. = 1,298.85
Sta. 27+71.77 P.V.T. Elev. = 1,299.10
Sta. 29+13.77 P.V.C. Elev. = 1,299.79
Sta. 29+63.77 P.V.I. Elev. = 1,300.04
Sta. 30+13.77 P.V.T. Elev. = 1,299.94
Sta. 30+86.09 P.V.C. Elev. = 1,299.79
Sta. 31+36.09 P.V.I. Elev. = 1,299.68
Sta. 31+86.09 P.V.T. Elev. = 1,299.78

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

LEGEND
- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

Sta. 27+74.49, 53.86' Lt. to Sta. 27+82.48, 63.57' Lt. Remove Exist. Chain Link Fence

Sta. 27+45.96, 32.50' Lt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1298.66

Sta. 27+03.35, 50.00' Lt. to Sta. 27+84.60, 50.77' Lt. Const. Concrete Retaining Wall See Sheet 56

Sta. 26+82.94, 50.00' Lt. to Sta. 27+03.35, 50.00' Lt. Const. Concrete Edge Curb (8") See Sheet 51

Sta. 26+02.99, 65.00' Lt. to Sta. 26+82.94, 65.00' Lt. Saw Cut Neat Line Const. Concrete Blended Transition for Concrete Entrance Match Existing

Sta. 26+42.97 Lt. ℄ 8" Concrete Drive 50.0' Width

Harper Trucks Inc. 1501 S. West St. Wichita, KS 67213

Sta. 28+16.30. 82.50' Lt. End 8" Valley Gutter on a 7" Crushed Rock Base, Reinforced Begin 9" Concrete Pavement (NRDJ) See Sheets 53 & 54

Sta. 27+95.73, 107.50' Lt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1299.68

Sta. 27+95.91, 82.50' Lt. Begin Type I Curb & Gutter Top of Curb Elev. = 1299.50 See Sheet 51

Sta. 28+16.30, Lt. Const. 8" Valley Gutter on a 7" Crushed Rock Base, Reinforced See Sheet 55

Exist. 35' Bldg. Setback

MONROE STREET

Sta. 28+16.30. 107.50' Lt. End 9" Concrete Pavement (NRDJ) Saw Cut Neat Joint Match Existing

Sta. 28+36.60, 107.50' Lt. Const. Type I Curb & Gutter (1 1/2") Top of Curb Elev. = 1299.19 Match Existing See Sheet 51

Sta. 28+36.65, 82.50' Lt. Transition Curb & Gutter from Type I Curb & Gutter (1 1/2") to Type I Curb & Gutter (6") Top of Curb Elev. = 1299.58 See Sheet 51

Sta. 28+46.14, 58.18' Lt. to Sta. 29+24.36, 40.34' Lt. Remove Exist. Concrete Retaining Wall & Metal Fence Const. Concrete Retaining Wall Match Exist. Retaining Wall See Sheet 56

Sta. 28+60.73. 47.00' Lt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 28+86.64, 32.50' Lt. Begin Type I Curb & Gutter (6") Top of Curb Elev. = 1299.09 See Sheet 51

Sta. 29+29.30, 50.26' Lt. Connect Exist. PVC Pipes to Prop. Curb & Gutter using Approved Neenah Curb Drain from the City of Wichita See Sheet 38

Sta. 29+63.71 Lt. ℄ 8" Concrete Drive 17.0' Width

Workhorse Automotive 1127 S. West St. Wichita, KS 67213

Quality Granite & Marble 1123 S. West St. Wichita, KS 67213

Sta. 31+70.62, 53.00' Lt. to Sta. 32+20.47, 53.00' Lt. Saw Cut Neat Line Const. Concrete Blended Transition for Concrete Entrance Match Existing

Sta. 31+48.62, 48.74' Lt. Exist. Sign Billboard (to be Removed by Others)

1111 S. West St. Wichita, KS 67213

Sta. 31+02.36, Lt. ℄ 8" Concrete Drive 30.0' Width

Sta. 31+95.54 Lt. ℄ 8" Concrete Drive 30.0' Width

Temp. Esmt.

Prop. Comm. Duct Bank

Exist. R/W

Prop. R/W

Exist. 50' Bldg. Setback

WEST STREET

℄ Proposed Improvements = ℄

MATCHLINE STA. 26+00.00

MATCHLINE STA. 32+00.00

Sta. 27+71.87, 47.00' Lt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 28+47.54, 45.55' Lt. Exist. Sign Billboard (to be removed by others)

Sta. 29+80.47, 47.00' Rt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 30+05.71, Rt. ℄ 8" Concrete Drive 35.0' Width

Sta. 30+91.78, 53.00' Rt. to Sta. 31+36.27, 53.00' Rt. Saw Cut Neat Line Const. Concrete Blended Transition for Concrete Entrance Match Existing

Sta. 31+14.00, Rt. ℄ 8" Concrete Drive 29.0' Width

Sta. 31+36.27, 47.00' Rt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 30+91.78, 47.00' Rt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 30+30.95, 47.00' Rt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Foley Industries Inc. 1300 S. West St. Wichita, KS 67213

SW Corner Sec. 25-T27S-R1W
3/4" iron pipe in thimble @ Harry and West Street Intersection
Northing = 1678234.0940
Easting = 1634021.7365

1. Top center bolt of fire hydrant	65.88' NE	2. "+" cut on small retaining wall	63.65' SE
3. "+" cut on corner of curb inlet	60.78' SW	4. "+" cut on corner of curb inlet	58.82' NW

E Quarter Corner Sec. 26-T27S-R1W
3/4" bar
Northing = 1680876.4155
Easting = 1633963.9125

1. "+" cut on west side of median	53.69' NE	2. "+" cut on west side of meidan	43.36' ENE
3. "+" cut on top of curb east side of West Street	102.26' SE	4. "+" cut on top of curb west side of West Street	50.29' W
5. "+" cut on concrete sign base	76.72' SE		

Center Corner Sec. 25-T27S-R1W
No monument set, lands on manhole lid
Northing = 1680933.5957
Easting = 1636593.7818

1. "+" cut on concrete collar of manhole	48.40' NE	2. Mag nail in southwest face of power pole	58.40' SE
3. Mag nail in north face of power pole	41.68' SW	4. "+" cut east side of 24" diameter base of light pole	43.57' W

BM #12-16
Found "D" cut on northeast corner of curb inlet at the northwest corner of West Street and Monroe Street
N 1,678,919.1580
E 1,633,962.5681
43.70' Lt., Sta. 28+42.18, Elev. = 1299.75

Note:
(XXX) For the project control and coordinate data, See Sheet 3

For the storm sewer plan & profile sheets, See Sheets 13-25

For ITS Communications Duct Bank layout and details, See Sheets 210-213

For the water line plan and profile sheets, See Sheets 223-229

The existing sign called out to be removed by others at Sta. 28+47.54, 45.55' Lt. shall be removed prior to construction. The Contractor is not responsible for the removal of this sign unless otherwise noted on the plans or approved by the Engineer.

The Contractor shall contact the property owners prior to moving or removing any existing landscaping that might be located in the direct path of construction.

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET PLAN & PROFILE STA. 26+00.00 TO STA. 32+00.00

SHEET NO.
8
SHEET 8 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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LEGEND

Pavement Removal

Sidewalk Removal

Curb & Gutter Removal

Tree Removal

(XXX) Note:
For the project control and coordinate data, See Sheet 3

For the storm sewer plan & profile sheets, See Sheets 13-25

For temporary traffic signal layouts and details, See Sheets 161-176

For the West Street traffic signal improvements, See Sheets 200-202

For ITS Communications Duct Bank layout and details, See Sheets 210-213

For the water line plan and profile sheets, See Sheets 223-229

The Contractor shall construct the pedestrain push button concrete with the sidewalk. For more information on the the pedestrian push button detail, See Sheet 207

The existing sign at Sta. 35+10.57, 57.33' Rt. shall be removed prior to construction. The Contractor is not responsible for the removal of this sign unless otherwise noted on the plans or approved by the Engineer.

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

+0.20% ℄

WALKER STREET

WEST STREET

Exist. R/W

Exist. Utility Esmt.

Prop. Waterline

Prop. R/W

Const. Limits

Temp. Esmt.

Prop. Comm. Duct Bank

Prop. Comm. Duct Bank

Exist. 35' Bldg. Setback

Exist. 40' Bldg. Setback

MATCHLINE STA. 32+00.00

MATCHLINE STA. 38+00.00

65.0' BOC to BOC

100.0' R/W to R/W

50.0' ℄ to R/W

℄ Proposed Improvements - ℄

Sta. 32+37.80, 64.00' Lt. to
Sta. 32+88.08, 64.00' Lt.
Saw Cut Neat Line
Const. Concrete Blended Transition for Concrete Entrance
Match Existing

Sta. 32+31.47, 43.35' Lt.
Exist. Sign
(to be Removed by Others)

Sta. 32+62.94 Lt.
℄ 8" Concrete Drive
30.3' Width

1107 S. West St. LLC
1107 S. West St.
Wichita, KS 67213

Sta. 34+25.46, 47.00' Lt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 33+96.13, 32.50' Lt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1299.96

Sta. 33+59.58, 25.93' Lt.
Remove and Reset Mailbox

Sta. 34+76.42, 117.67' Lt.
End 5" AC Pavement on a
5" Crushed Rock Base, Reinforced
Saw Cut Neat Line
Match Existing

Sta. 34+56.03, 117.76' Lt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.27

Sta. 34+76.85, 92.67' Lt.
End 8" Valley Gutter on a
7" Crushed Rock Base, Reinforced
Begin 5" AC Pavement on a
5" Crushed Rock Base, Reinforced

Sta. 34+56.19, 92.75' Lt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.33

Sta. 34+76.82, Lt.
Const. 8" Valley Gutter on a
7" Crushed Rock Base, Reinforced
See Sheet 55

Sta. 34+96.29, 183.36, Lt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.14
Match Existing

Sta. 34+96.88, 92.63' Lt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.34

Sta. 35+43.04, Lt.
℄ 8" Concrete Drive
30.0' Width

The entrance to 1035 S. West Street off of Walker Street shall be constructed prior to closing and removing the existing entrance to the property off of West Street per property negotiations.

Sta. 35+27.58, 47.00' Lt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 35+34.81, 44.00' Lt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 35+56.88, 32.50' Lt.
Begin Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.28

Sta. 35+98.75 Lt.
℄ 8" Concrete Drive
15.0' Width

Sta. 36+47.97, Lt.
℄ 8" Concrete Drive
24.0' Width

Indingo Rising LC
1031 S. West St.
Wichita, KS 67213

Sta. 36+36.05, 51.50' Lt. to
Sta. 36+59.88, 51.50' Lt.
Saw Cut Neat Line
Const. Concrete Blended Transition for Concrete Entrance
Match Existing

Sta. 37+29.40, 61.98' Lt. to
Sta. 37+67.67, 61.98' Lt.
Saw Cut Neat Line
Const. Concrete Blended Transition for Concrete Entrance
Match Existing

Sta. 37+67.40, 50.75' Lt. to
Sta. 38+66.00, 40.13' Lt.
Const. Concrete Edge Curb (8")
See Sheet 50

Sta. 37+53.39, Lt.
℄ 8" Concrete Drive
28.0' Width

Sta. 35+86.18, 25.56' Lt.
Remove and Reset Mailbox

Sta. 35+82.09, 24.98' Lt.
Remove and Reset Mailbox

Sta. 35+56.88,
End Concrete Pavement (9")(Reinforced)
Begin Concrete Pavement (9")(NRDJ)
See Sheet 53 & 54

Sta. 32+35.29 Rt.
℄ 8" Concrete Drive
30.0' Width

Sta. 32+20.41, 53.50' Rt. to
Sta. 32+55.11, 53.50' Rt.
Saw Cut Neat Line
Const. Concrete Blended Transition for Concrete Entrance
Match Existing

Sta. 33+07.67, 50.00' Rt. to
Sta. 34+44.44, 62.35' Rt.
Remove Exist. Chain Link Fence

Sta. 33+96.13,
End Concrete Pavement (9")(NRDJ)
Begin Concrete Pavement (9")(Reinforced)
See Sheet 52

Sta. 33+96.13, 32.50' Rt.
End Type I Curb & Gutter (6")
Begin 82.5' Radius (B.O.C)
Top of Curb Elev. = 1299.96

Sta. 34+31.90, 47.00' Rt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 34+37.11, 43.44' Rt.
End 82.5' Radius (B.O.C)
Begin 60.0' Radius (B.O.C)
Top of Curb Elev. = 1300.08

Sta. 34+78.13, Rt.
Const. 8" Valley Gutter on a
7" Crushed Rock Base, Reinforced
See Sheet 55

Sta. 34+62.53, 110.50' Rt.
End Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.54
Match Existing

Sta. 34+62.58, 92.50' Rt.
End 60.0' Radius (B.O.C)
Begin Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.24

Atlas Spring & Axel Co.
1100 S. West St.
Wichita, KS 67213

Sta. 34+37.31, Rt.
℄ 8" Concrete Drive
31.0' Width

Sta. 34+62.35, 224.37' Rt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.60
Match Existing

Sta. 34+62.40, 163.95' Rt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.56
Match Existing

Sta. 34+93.55, 92.50' Rt.
Begin 60.0' Radius (B.O.C)
Top of Curb Elev. = 1300.32

Sta. 34+95.80, 110.50' Rt.
Const. Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.36
Match Existing

Sta. 34+78.13, 92.51' Rt.
End 8" Valley Gutter on a
7" Crushed Rock Base, Reinforced
Begin Concrete Pavement (9")(NRDJ)
See Sheet 53 & 54

Sta. 34+78.14, 110.51' Rt.
End Concrete Pavement (9")(NRDJ)
Saw Cut Neat Line
Match Existing

Sta. 35+53.22 Rt.
℄ 8" Concrete Drive
30.0' Width

Sta. 35+53.55, 32.50' Rt.
End 82.5' Radius (B.O.C)
Begin Type I Curb & Gutter (6")
Top of Curb Elev. = 1300.27

Sta. 35+34.82, 44.00' Rt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 35+24.23, 47.00' Rt.
Const. Wheelchair Ramp
Const. 6.0' Concrete Sidewalk 4"
See Sheet 50

Sta. 35+19.01, 43.44' Rt.
End 60.0' Radius (B.O.C)
Begin 82.5' Radius (B.O.C)
Top of Curb Elev. = 1300.29

Sta. 37+41.91 Rt.
℄ 8" Concrete Drive
30.0' Width

M6 Concrete Accesories
1040 S. West St.
Wichita, KS 67213

††Exist. Chain Link Fence (to be Reset by others)

††Exist. Metal Fence (to be Reset by others)

††Exist. Metal Fence (to be Reset by others)

Sonny's Inc.
1030 S. West St.
Wichita, KS 67213

††The existing chainlink fence located on M6 Concrete Accessories (1040 S. West Street) and the existing metal fence on Sonny's Inc. (1030 S. West Street) shall be moved prior to construction by the property owners in accordance with property negotiations. If the fences are not moved prior to construction, the Contractor is to contact the Engineer on site to further communicate with the City of Wichita.

E Quarter Corner Sec. 26-T27S-R1W
3/4" bar
Northing = 1680876.4155
Easting = 1633963.9125

1. "+" cut on west side of median	53.69' NE
2. "+" cut on west side of meidan	43.36' ENE
3. "+" cut on top of curb east side of West Street	102.26' SE
4. "+" cut on top of curb west side of West Street	50.29' W
5. "+" cut on concrete sign base	76.72' SE

S Quarter Corner Sec. 23-T27S-R1W
3/4" Iron pipe in thimble at Maple Street and Anna Street
Northing = 1683446.7850
Easting = 1631259.3893

1. "+" cut on top of southwest corner of curb inlet	52.29' NE
2. "+" cut on east end of concrete median	63.34' SE
3. "+" cut on north end of bullnose median	46.47' S
4. "+" cut on west end of concrete median	65.94' SW

BM #11-16
Found "D" cut on southeast corner of curb inlet on the southeast corner of West Street and Walker Street
N 1,679,537.9860
E 1,634,042.1050
49.78' Rt., Sta. 34+59.05, Elev. = 1300.57

NE Corner Sec. 26-T27S-R1W
3/4" Iron pipe in thimble at West Street and Maple Street
Northing = 1683518.1315
Easting = 1633907.6370

1. "+" cut at south corner of concrete traffic signal manhole	77.65' NE
2. "+" cut at southwest corner of concrete traffic signal manhole	82.99' SW
3. "+" cut at north corner of concrete traffic signal manhole	90.34' SW
4. "+" cut at southeast corner of concrete traffic signal manhole	87.00' NW

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

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TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET PLAN & PROFILE STA. 32+00.00 TO STA. 38+00.00

SHEET NO.
9
SHEET 9 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

+0.20% ℄ | Sta. 40+65.00 P.V.I. Elev. = 1,301.54 | -0.26% ℄

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

LEGEND

- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

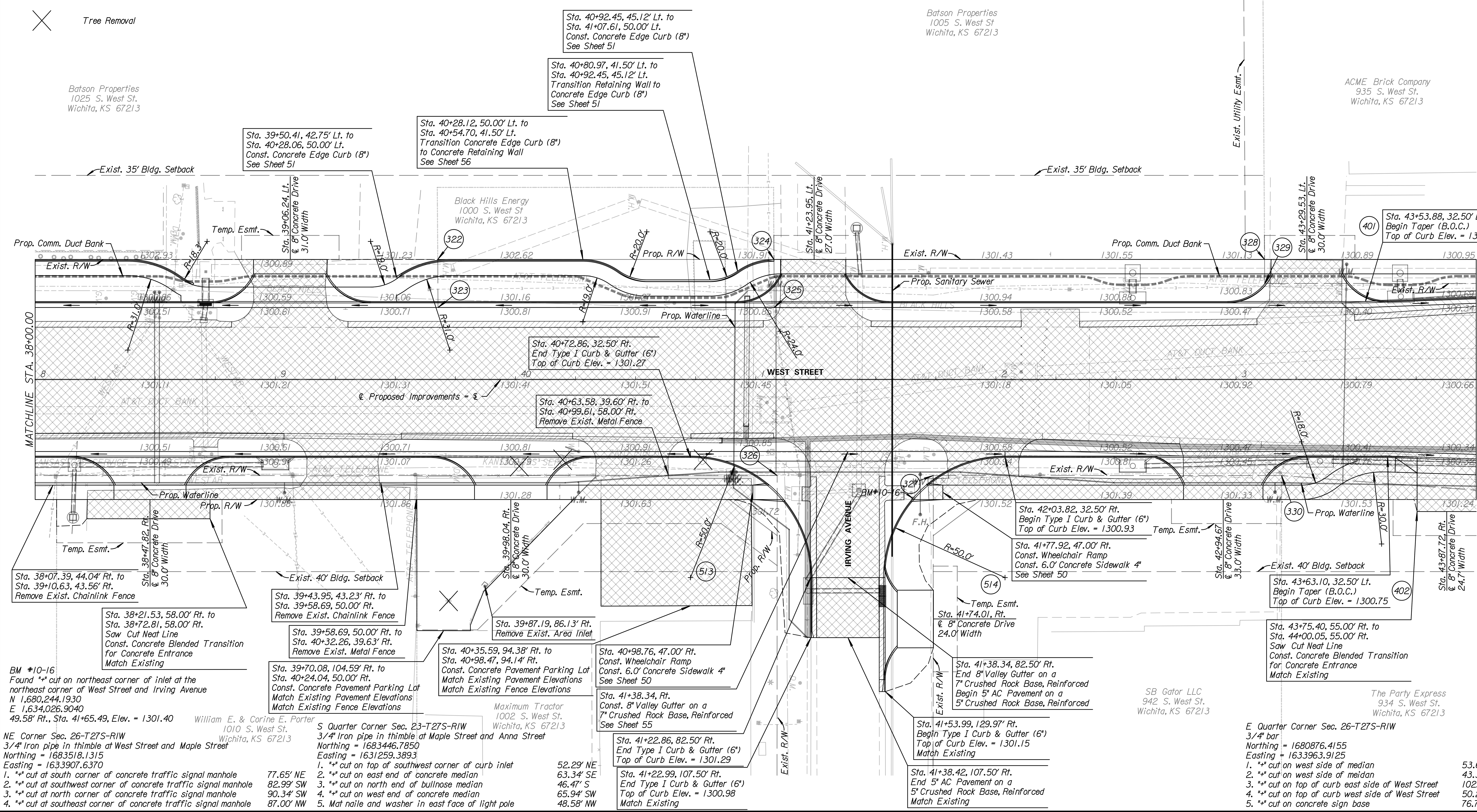
(XXX) Note:
For the project control and coordinate data, See Sheet 3

For the storm sewer plan & profile sheets, See Sheets 13-25

For ITS Communications Duct Bank layout and details, See Sheets 210-213

For sanitary sewer plan and profile sheet, See Sheet 216

For the water line plan and profile sheets, See Sheets 223-229



BM #10-16
Found "+" cut on northeast corner of inlet at the northeast corner of West Street and Irving Avenue
N 1,680,244.1930
E 1,634,026.9040
49.58' Rt., Sta. 41+65.49, Elev. = 1301.40

NE Corner Sec. 26-T27S-R1W
3/4" Iron pipe in thimble at West Street and Maple Street
Northing = 1683518.1315
Easting = 1633907.6370

1. "+" cut at south corner of concrete traffic signal manhole	77.65' NE
2. "+" cut at southwest corner of concrete traffic signal manhole	82.99' SW
3. "+" cut at north corner of concrete traffic signal manhole	90.34' SW
4. "+" cut at southeast corner of concrete traffic signal manhole	87.00' NW

S Quarter Corner Sec. 23-T27S-R1W
3/4" Iron pipe in thimble at Maple Street and Anna Street
Northing = 1683446.7850
Easting = 1631259.3893

1. "+" cut on top of southwest corner of curb inlet	52.29' NE
2. "+" cut on east end of concrete median	63.34' SE
3. "+" cut on north end of bullnose median	46.47' S
4. "+" cut on west end of concrete median	65.94' SW
5. Mat naile and washer in east face of light pole	48.58' NW

E Quarter Corner Sec. 26-T27S-R1W
3/4" bar
Northing = 1680876.4155
Easting = 1633963.9125

1. "+" cut on west side of median	53.69' NE
2. "+" cut on west side of meidan	43.36' ENE
3. "+" cut on top of curb east side of West Street	102.26' SE
4. "+" cut on top of curb west side of West Street	50.29' W
5. "+" cut on concrete sign base	76.72' SE

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET PLAN & PROFILE STA. 38+00.00 TO STA. 44+00.00

SHEET NO. 10

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LEGEND

- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

-0.26% ℄ | VC = 100' K = 204 | -0.26% ℄ | +0.22% ℄

Sta. 45+74.71 P.V.C. Elev. = 1300.19

Sta. 46+24.71 P.V.I. Elev. = 1300.06

Sta. 46+74.71 P.V.T. Elev. = 1300.17

Sta. 46+75.35 P.V.I. Elev. = 1,300.18 Match Existing

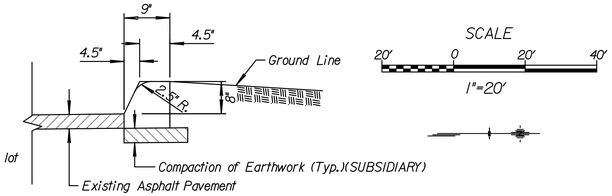
(XXX) Note: For all control and coordinate data, See Sheet 3

For storm sewer plan & profile sheets, See Sheets 13-25

For ITS Communications Duct Bank layout and details, See Sheets

For Intersection details, See Sheets 46-47

All work on the Berry Tractor property that impacts their parking lot and accesses shall be completed within one (1) month of impact.



8" Edge Curb Detail

8" Edge Curb shall be paid for by the bid item "Concrete Edge Curb (8")" and shall include all work, materials, labor and equipment necessary to complete this work. All exposed edges shall be finished with an edging tool. Edge curb shall have a 2.5' transition from at each end unless matching into exsiting curb.

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

Sta. 46+04.66, 121.84' Lt. End 5" AC Pavement on a 5" Crushed Rock Base, Reinforced Saw Cut Neat Line Match Existing

Sta. 46+04.71, 93.07' Lt. End Concrete Pavement (9")(Reinforced) Begin 5" Asphalt Pavement on a 5" Crushed Rock Base, Reinforced

Sta. 45+83.96, 93.07' Lt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1300.35 Match Existing

Sta. 45+33.97 End Concrete Pavement (9")(NRDJ) Begin Concrete Pavement (9")(Reinforced) See Sheet 52

Sta. 44+72.90, 52.00' Lt. to Sta. 45+12.90, 52.00' Lt. Saw Cut Neat Line Const. Concrete Blended Transition for Concrete Entrance Match Existing

ACME Brick Company 935 S. West St. Wichita, KS 67213

Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 44+92.90, Lt. ℄ 8" Concrete Drive 30.0' Width

IRVING STREET

Sta. 46+25.41, 83.10' Lt. Const. Type I Curb & Gutter (6") Top of Curb Elev. = 1300.23 Match Existing

Const. Wheelchair Ramp Const. 10.0' Concrete Sidewalk 4" See Sheet 50

Sta. 46+45.77, 60.00' Lt. Remove R/W Marker & Concrete Footing For Fence

Sta. 46+47.95, 77.71' Lt. to Sta. 46+65.91, 59.85' Lt. Const. Concrete Edge Curb (8") w/ 2.5' Curb Transition Match Existing See Detail This Sheet

Sta. 46+72.32, 53.43' Lt. to Sta. 47+63.94, 66.40' Lt. Const. Concrete Edge Curb (8") See Sheet 51

Sta. 46+75.35, 42.81' Lt. End Type I Curb & Gutter (6") End Taper (Back of Curb) Top of Curb Elev. = 1299.90 Match Existing

Sta. 47+09.53, 59.92' Lt. Install Chainlink Fence Post Install 46.1' Chainlink Fence (4'-0") See Sheet 57

Sta. 47+09.53, 59.92' Lt. to Sta. 47+54.54, 69.52' Lt. Remove 47.7' Exist. Curb & Gutter Const. Concrete Edge Curb (8") Match Existing See Detail This Sheet

Sta. 47+09.66, 59.95' Lt. Install R/W Marker

Exist. KDOT R/W Fence (To Remain)

Sta. 47+98.38, 95.85' Lt. Connect chainlink fence to existing fence post

Sta. 48+00.50, 85.02' Lt. Const. Wheelchair Ramp Const. 10.0' Concrete Sidewalk 4" See Sheet 50

Sta. 48+09.08, 85.30' Lt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1301.26 Match Existing

Sta. 47+96.15, 72.82' Lt. Begin Type I Curb & Gutter (6") Top of Curb Elev. = 1300.80 Match Existing

Sta. 47+68.01, 67.37' Lt. Remove existing concrete around box and adjust to match proposed sidewalk elevation and cross slope Exist. Elev. = 1301.00 Prop. Elev. = 1300.42 Difference = -0.58'

Sta. 47+54.62, 69.53' Lt. Install R/W Marker Install Chainlink Fence Post Install 51.1' Chainlink Fence (4'-0") See Sheet 57

Sta. 47+38.65, 59.93' Lt. Remove R/W Marker & Concrete Footing For Fence

Sta. 46+65.78, 59.98' Lt. Install R/W Marker Install Chainlink Fence Post Install 43.7' Chainlink Fence (4'-0") See Sheet 57

Sta. 46+48.04, 59.82' Lt. to Sta. 46+65.91, 59.85' Lt. Remove 17.9' Exist. Curb & Gutter

Sta. 46+75.35, End Concrete Pavement (9")(Reinforced) Saw Cut Neat Line Match Existing

Sta. 46+18.21, 60.19' Rt. Const. Wheelchair Ramp Const. 6.0' Concrete Sidewalk 4" See Sheet 50

Sta. 47+29.79, 57.47' Lt. Adjust Exist. Water Meter Exist. Elev. = 1301.03 Prop. Elev. = 1300.62 Difference = -0.41'

Sta. 48+11.18, End Project No. 472-85296

Sta. 46+83.90, 67.19' Rt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1299.88 Match Existing

Sta. 46+98.96, Lt. ℄ 8" Concrete Drive 24.0' Width

Sta. 46+81.21, 129.57' Rt. Const. Type I Curb & Gutter (6") Top of Curb Elev. = 1300.34 Match Existing

Sta. 46+58.27, 104.62' Rt. End Concrete Pavement (9")(Reinforced) Begin Concrete Pavement (9")(NRDJ) See Sheets 53 & 54

Sta. 46+58.47, 129.88' Rt. End Concrete Pavement (9")(NRDJ) Saw Cut Neat Line Match Existing

Sta. 46+35.80, 130.20' Rt. End Type I Curb & Gutter (6") Top of Curb Elev. = 1300.76 Match Existing

Sta. 45+87.13, 39.68' Rt. Begin Taper (B.O.C.) Top of Curb Elev. = 1300.34

Sta. 46+05.11, 50.25' Rt. to Sta. 46+22.66, 71.66' Rt. Const. Type I Curb & Gutter (6") Match Existing

Sta. 46+18.99, Rt. ℄ 8" Concrete Drive 18.1' Width

Sta. 45+13.76, 62.61' Rt. to Sta. 45+09.86, 50.20' Rt. Const. Type I Curb & Gutter (6") Match Existing

Sta. 45+12.70, 62.61' Rt. to Sta. 45+86.92, 46.43' Rt. Const. Concrete Retaining Wall For Elevation Details See Sheet 56

Sta. 45+01.35, 46.94' Rt. to Sta. 46+05.11, 50.25' Rt. Const. 4" Red Stamped Concrete between the Back of the Parking Lot Curb and the Back of the Retaining Wall

Sta. 44+76.29, 69.66' Rt. to Sta. 45+13.76, 69.66' Rt. Const. Concrete Pavement Parking Lot Match Existing Pavement Elevations

Sta. 44+88.44, Rt. ℄ 8" Concrete Drive 24.0' Width

Prop. R/W | Prop. Waterline | Temp. Esmt. | Exist. R/W | Exist. 40' Bldg. Setback | Exist. Waterline | Exist. Gas Line | Exist. Fiber Optic | Exist. Overhead Power | Exist. Underground Power | AT&T DUCT BANK | KANSAS GAS SERVICE | Remove Steel Bollards (2) & Sign Post | WEST STREET | McCORMICK STREET | MATCHLINE STA. 44+00.00

℄ Proposed Improvements = ℄

Exist. R/W 1301.15 | 1300.63 | 1300.19 | 1300.21 | 1300.13 | 1299.94 | 1299.90 | 1300.28 | 1300.26 | 1300.14 | 1300.13 | 1300.52 | 1300.39 | 1300.22 | 1300.08 | 1299.97 | 1299.94 | 1299.90 | 1301.50 | 1302.09

R=50.0' | R=15.0' | R=15.0'

331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 403 | 404 | 515 | 516 | 517 | 105 | 106

Concrete Pavement 4" - Red Stamped Concrete (Charcoal Red color)(Herringbone Pattern)
½" Expansion Joint Material (Pre-moulded)(Nonextruding, Type B)(Typ.)
Existing Curb & Gutter
Existing Parking Lot Pavement (Berry Tractor)
Concrete Retaining Wall
Concrete Sidewalk (4")
Flowable Fill (8")
Compaction of Earthwork (SUBSIDIARY)

RED STAMPED CONCRETE DETAIL

E Quarter Corner Sec. 26-T27S-R1W
3/4" bar
Northing = 1680876.4155
Easting = 1633963.9125

1. "+" cut on west side of median	53.69' NE
2. "+" cut on west side of meidan	43.36' ENE
3. "+" cut on top of curb east side of West Street	102.26' SE
4. "+" cut on top of curb west side of West Street	50.29' W
5. "+" cut on concrete sign base	76.72' SE

S Quarter Corner Sec. 23-T27S-R1W
3/4" Iron pipe in thimble at Maple Street and Anna Street
Northing = 1683446.7850
Easting = 1631259.3893

1. "+" cut on top of southwest corner of curb inlet	52.29' NE
2. "+" cut on east end of concrete median	63.34' SE
3. "+" cut on north end of bullnose median	46.47' S
4. "+" cut on west end of concrete median	65.94' SW
5. Mat naile and washer in east face of light pole	48.58' NW

NE Corner Sec. 26-T27S-R1W
3/4" Iron pipe in thimble at West Street and Maple Street
Northing = 1683518.1315
Easting = 1633907.6370

1. "+" cut at south corner of concrete traffic signal manhole	77.65' NE
2. "+" cut at southwest corner of concrete traffic signal manhole	82.99' SW
3. "+" cut at north corner of concrete traffic signal manhole	90.34' SW
4. "+" cut at southeast corner of concrete traffic signal manhole	87.00' NW

Berry Properties 930 S. West St. Wichita, KS 67213

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
PLAN & PROFILE
STA. 44+00.00 TO
STA. 48+11.18

SHEET NO. 11
SHEET 11 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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LEGEND

- Pavement Removal
- Sidewalk Removal
- Curb & Gutter Removal
- Tree Removal

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

Atlas Spring & Axel Co.
Wichita, KS 67213

M6 Concrete Accesories
3920 W. Walker St.
Wichita, KS 67213

Exist. R/W

℄

Sta. 100+70.96, 90.77' Lt.
Const. Type I Curb & Gutter (6")
Begin Taper (B.O.C.)
Top of Curb Elev. = 1299.98
Match Existing
405

Sta. 100+71.96, 64.65' Lt.
End Taper (B.O.C.)
Begin 50.0' Radius (B.O.C.)
Top of Curb Elev. = 1300.15
406

Sta. 100+85.44, 55.41' Lt. to
Sta. 101+10.52, 30.21' Lt.
Remove Exist. Chainlink Fence

Sta. 100+68.39, 13.28' Lt.
Begin Concrete Pavement (9")(Reinforced)
Saw Cut Neat Line
Match Existing
518

Sta. 101+20.23, 16.58' Lt.
End 50.0' Radius (B.O.C.)
Begin Taper (B.O.C.)
Top of Curb Elev. = 1300.20
407

Sta. 101+45.89, 15.71' Lt.
End Type I Curb & Gutter (6")
End Taper (B.O.C.)
Top of Curb Elev. = 1300.26
Match Existing
408

R=50.0'

WALKER STREET

Exist. R/W

Const. Limits

Exist. R/W

POT +00.00

POT +57.48

100 1 McCOMAS STREET 2

WESTAR

Exist. R/W

℄

Foley Industries Inc.
1100 S. McComas St.
Wichita, KS 67213

Exist. R/W

M6 Concrete Accesories
1040 S. McComas St.
Wichita, KS 67213

Center Corner Sec. 25-T27S-R1W
No monument set, lands on manhole lid
Northing = 1680933.5957
Easting = 1636593.7818

1. "+" cut on concrete collar of manhole	48.40' NE
2. Mag nail in southwest face of power pole	58.40' SE
3. Mag nail in north face of power pole	41.68' SW
4. "+" cut east side of 24" diameter base of light pole	43.57' W

E Quarter Corner Sec. 26-T27S-R1W
3/4" bar
Northing = 1680876.4155
Easting = 1633963.9125

1. "+" cut on west side of median	53.69' NE
2. "+" cut on west side of meidan	43.36' ENE
3. "+" cut on top of curb east side of West Street	102.26' SE
4. "+" cut on top of curb west side of West Street	50.29' W
5. "+" cut on concrete sign base	76.72' SE

SW Corner Sec. 25-T27S-R1W
3/4" iron pipe in thimble @ Harry and West Street Intersection
Northing = 1678234.0940
Easting = 1634021.7365

1. Top center bolt of fire hydrant	65.88' NE
2. "+" cut on small retaining wall	63.65' SE
3. "+" cut on corner of curb inlet	60.78' SW
4. "+" cut on corner of curb inlet	58.82' NW

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WALKER & McCOMAS STREET IMPROVEMENTS

SHEET NO.
12
SHEET 12 OF 262

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Note:
There is minimal clearance between the aggregate base and top of existing storm sewer pipe to remain. Use caution whenever construction activity takes place in those areas.

The Contractor shall coordinate with the utility companies to locate any existing utilities that have not been previously located.

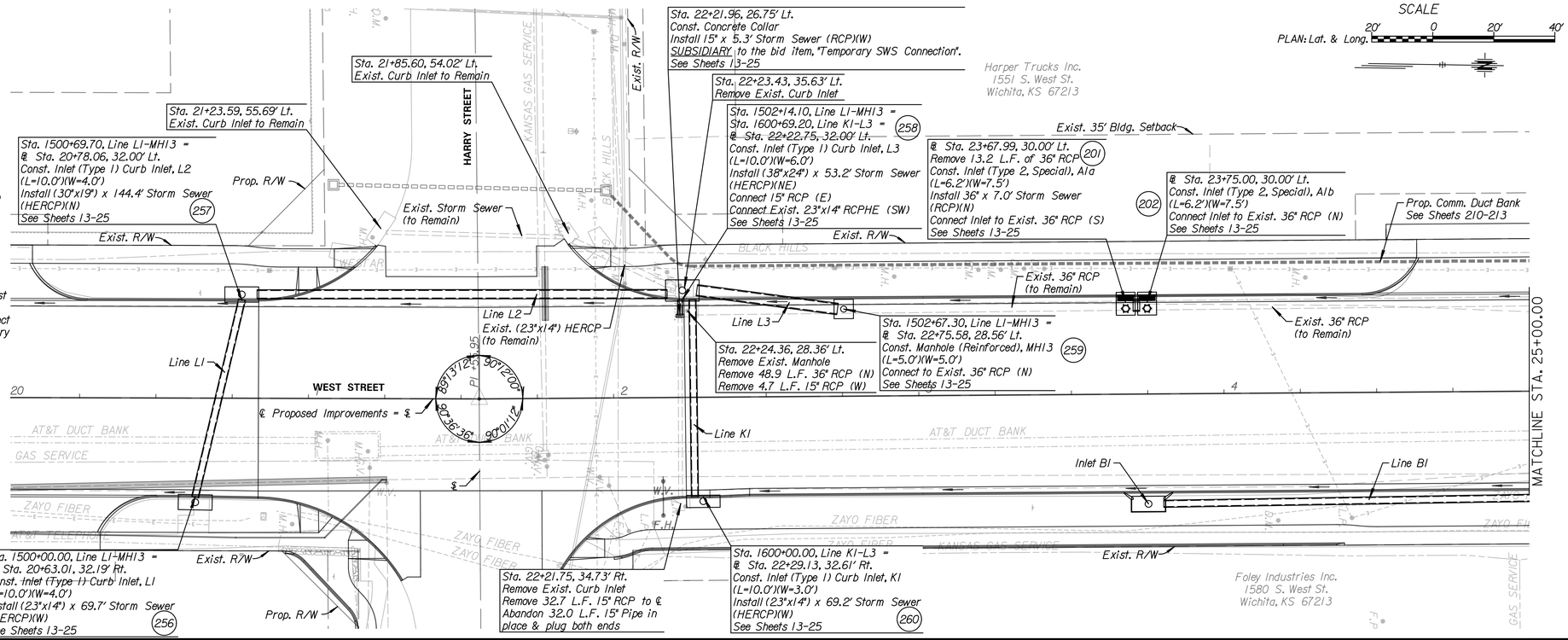
Any storm sewer adjacent to the curb & gutter or under any proposed pavement on mainline, sideroads or entrances shall be backfilled in accordance with the City of Wichita Specifications unless otherwise noted on the plans or by the Engineer.

For System B Storm Sewer, See Sheet 18

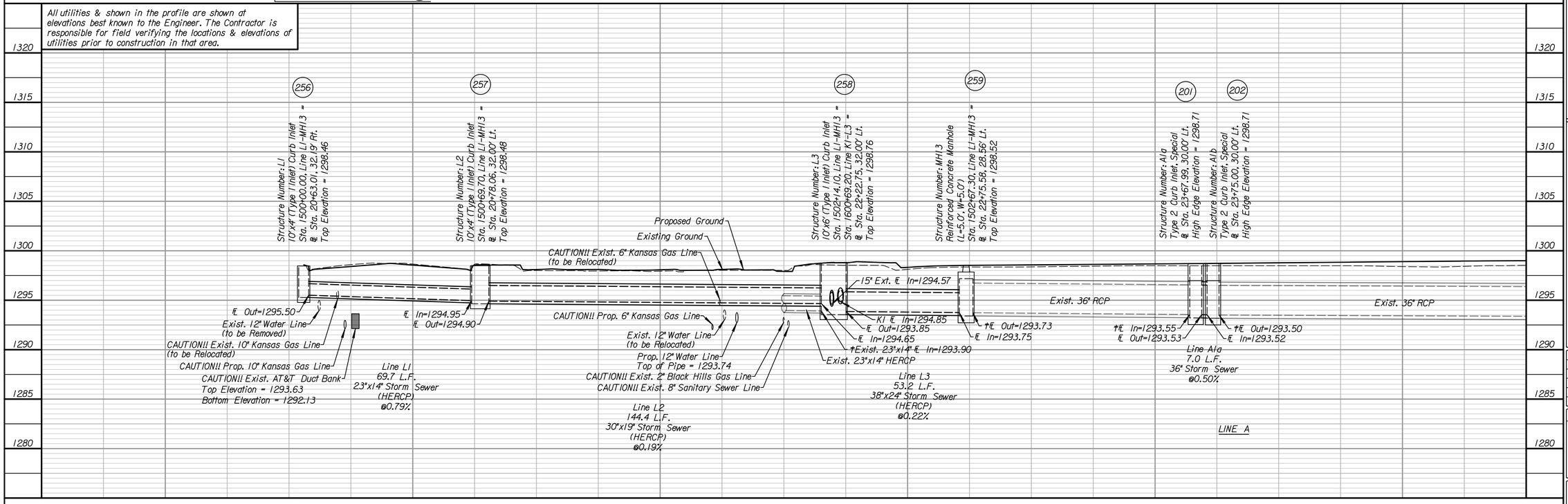
†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The space between the Type 2 Special inlets shall be filled with Flowable Fill. The Flowable Fill shall be considered SUBSIDIARY to the inlets

All temporary pipe connections needed to drain the east side of West Street during construction shall be installed during Phase 2 of construction. All pipe, material, labor, and equipment needed to connect the pipe shall be considered SUBSIDIARY to the bid item "Temporary SWS Connection".



All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM A

SHEET NO.
13
SHEET 13 OF 262

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

205 Sta. 201+50.10, Line B3-A2 = @ Sta. 27+20.51, 30.00' Lt.
Const. Inlet (Type 2, Special), A2b
(L=6.2')(W=7.5')
Connect Inlet to Exist. 42" RCP (N)
See Sheets 13-25

Sta. 201+50.40, Line B3-A2 = @ Sta. 27+13.51, 30.00' Lt. = Remove 13.2 L.F. Exist. 42" RCP
Const. Inlet (Type 2, Special), A2a
(L=6.2')(W=7.5')
Install 42" x 7.0' Storm Sewer (RCP)(N)
Connect Inlet to Exist. 42" RCP (S)
See Sheets 13-25

Sta. 27+92.60, 49.50' Lt.
Remove Exist. Curb Inlet
Remove 44.4 L.F. 18" RCP (N)

203 Sta. 102+21.00, Line B1-MH1 = @ Sta. 25+30.19, 29.23' Lt.
Remove Exist. Curb Inlet
Const. Manhole (Reinforced), MH1
(L=8.0')(W=5.0')
Connect Manhole to Exist. 36" RCP (S)
Connect Manhole to Exist. 42" RCP (N)
Connect Manhole to Exist. 15" CMP (E)
See Sheets 13-25

204 Exist. 35' Bldg. Setback
Temp. Esmt.
Temp. Esmt.
Prop. Comm. Duct Bank See Sheets 210-213
Exist. R/W
Prop. R/W
Exist. R/W
Exist. 42" RCP (to Remain)
Line MH7
Line B1
Manhole MH7
Exist. R/W
Temp. Esmt.
Inlet B3
Line B3
Inlet B2
Line B2
Line B2
℄ Proposed Improvements = $
MATCHLINE STA. 25+00.00
WEST STREET
Inlet F2
Inlet F1
Line F1
Exist. R/W
MONROE STREET
Line F2
Prop. R/W
Exist. 42" RCP (to Remain)
Inlet C1
F.H.

206 1201+01.50, Line F1-MH2 = @ Sta. 28+50.57, 29.21' Lt.
Remove Exist. Curb Inlet
Const. Manhole (Reinforced), MH2
(L=8.0')(W=6.0')
Connect Manhole to Exist. 42" RCP (S)
Conncet Manhole to Exist. 48" RCP (N)
Connect Manhole to Exist. 15" CMP (E)
See Sheets 13-25

Sta. 28+40.51, 46.19' Lt.
Remove Exist. Curb Inlet
Remove 15.0 L.F. 18" RCP (NE)

Sta. 29+29.18, 32.50' Lt.
Contractor shall install a Neenah curb drain in the curb and gutter and connect the existing PVC Pipes to the proposed curb and gutter. All materials and labor required for installation shall be considered SUBSIDIARY to other items on the contract.
See Sheet 38

252 @ Sta. 30+51.81, 28.18' Lt.
Remove Exist. Curb Inlet
Const. Manhole (Reinforced), MH15
(L=11.0')(W=6.0')
Connect Manhole to Exist. 48" RCP (S)
Connect Manhole to Exist. 54" RCP (N)
Connect Manhole to Exist. 18" RCP (NW)
Connect Manhole to Exist. 15" CMP (E)
See Sheets 13-25

Prop. Comm. Duct Bank See Sheets 210-213
Exist. 48" RCP (to Remain)
Exist. 54" RCP (to Remain)
Exist. 18" RCP (to Remain)
Temp. Esmt.
Exist. Manhole (to Remain)
Exist. R/W
MATCHLINE STA. 31+00.00
Line C1
Exist. R/W

Note: M.
For System B Storm Sewer, See Sheet 18
For System C Storm Sewer, See Sheets 19 & 20
For System F Storm Sewer, See Sheet 23
*Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

1320 1315 1310 1305 1300 1295 1290 1285 1280

203 Structure Number: MH1 Reinforced Concrete Manhole (L=8.0', W=5.0')
Sta. 102+21.00, Line B1-MH1 = @ Sta. 25+30.19, 29.23' Lt.
Top Elevation = 1298.98

Proposed Ground
Existing Ground

℄E Out=1293.24
MH7 ℄E In=1295.40
℄E In=1293.24
℄E In=1293.34
Exist. 42" RCP

204 Structure Number: A2a Type 2 Curb Inlet, Special (L=6.2', W=7.5')
Sta. 201+50.10, Line B3-A2 = @ Sta. 27+13.51, 30.00' Lt.
High Edge Elevation = 1298.36

205 Structure Number: A2b Type 2 Curb Inlet, Special (L=6.2', W=7.5')
Sta. 201+50.10, Line B3-A2 = @ Sta. 27+20.51, 30.00' Lt.
High Edge Elevation = 1298.36

℄E In=1293.15
℄E Out=1293.15
℄E Out=1293.15
B2 ℄E In=1295.75
℄E In=1293.15
Line A2a
7.0 L.F.
42" Storm Sewer
60.00%

206 Structure Number: MH2 Reinforced Concrete Manhole (L=8.0', W=6.0')
Sta. 1201+01.50, Line F1-MH2 = @ Sta. 28+50.57, 29.21' Lt.
Top Elevation = 1298.90

℄E In=1293.12
F2 ℄E In=1294.25
Exist. 42" RCP
Exist. 15" CMP ℄E In=1296.17
℄E Out=1292.97
Prop. 8" Water Line
Top of Pipe = 1291.81
Exist. 42" RCP
Exist. 48" RCP

252 Structure Number: MH15 Reinforced Concrete Manhole (L=11.0', W=6.0')
@ Sta. 30+51.81, 28.18' Lt.
Top Elevation = 1299.29

℄E In=1292.60
18" ℄E In=1295.59
℄E Out=1292.50
15" ℄E In=1296.59
Exist. 54" RCP
CAUTION!! Prop. 2" Kansas Gas Line
CAUTION!! Exist. 2" Kansas Gas Line

LINE A

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS
CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM A

SHEET NO.
14
SHEET 14 OF 262

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@ Sta. 31+38.28, 30.00' Lt.
Remove 13.2 L.F. 54" RCP
Const. Inlet (Type 2, Special), A3a
(L=6.2')(W=9.5')
Install 54" x 7.0' Storm Sewer
(RCP)(N)
Connect Inlet to Exist. 54" RCP (S)
See Sheets 13-25
207

@ Sta. 31+45.29, 30.00' Lt.
Const. Inlet (Type 2, Special), A3b
(L=6.2')(W=9.5')
Connect Inlet to Exist. 54" RCP (N)
See Sheets 13-25
208

Sta. 405+90.40, Line C1-A4 =
@ Sta. 33+78.00, 30.00' Lt.
Const. Inlet (Type 2, Special), A4b
(L=6.2')(W=9.5')
Install 60" x 70.1' Storm Sewer
(RCP)(NW)
See Sheets 13-25
210

Sta. 405+90.40, Line C1-A4 =
@ Sta. 33+70.99, 30.00' Lt.
Remove Exist. Curb Inlet
Const. Inlet (Type 2, Special), A4a
(L=6.2')(W=9.5')
Install 54" x 7.0' Storm Sewer
(RCP)(N)
Connect Inlet to Exist. 54" RCP (S)
See Sheets 13-25
209

Sta. 1301+75.50, Line G1-MH3 =
@ Sta. 34+46.49, 43.25' Lt.
Remove Exist. Manhole
Const. Manhole (Reinforced), MH3
(L=9.0')(W=7.0')
Connect Manhole to Exist. 60" RCP (N)
Connect Manhole to Exist. 7'x5' RCB (W)
See Sheets 13-25
211

Sta. 34+46.34, 29.65' Lt.
Remove Exist. Manhole
Remove 77.6 L.F. 60" RCP (S)
Remove 69.0 L.F. 24" RCP (N)
Remove 12.8 L.F. 36" RCP (W)

Sta. 504+17.80, Line D1-MH4 =
@ Sta. 35+68.68, 43.83' Lt.
Const. Manhole (Reinforced), MH4
(L=5.0')(W=7.0')
Connect Manhole to Exist. 60" RCP (S)
Connect Manhole to Exist. 60" RCP (N)
See Sheets 13-25
212

Sta. 35+19.08, 28.96' Lt.
Remove Exist. Curb Inlet

Sta. 33+74.25, 14.74' Lt.
Remove 10.0 L.F. 15" CMP (W)
Install Coupling Band and Bend
Install 15" x 10.1' Storm Sewer (CMP)(NW)
SUBSIDIARY to the bid item, "Temporary SWS Connection".
See Sheets 13-25

Exist. 35' Bldg. Setback
Exist. 40' Bldg. Setback
Temp. Esmt.
Exist. R/W
Prop. R/W
Prop. Comm. Duct Bank
See Sheets 210-213
Exist. 54" RCP
(to Remain)
Exist. 60" RCP
(to be Removed)
Exist. 7'x5' RCB
(to Remain)
Exist. 60" RCP
(to Remain)
Building Setback
WALKER STREET
WEST STREET
℄ Proposed Improvements = ℄
MATCHLINE STA. 31+00.00
MATCHLINE STA. 37+00.00
Line A4b
Line C4
Line C3
Line C2
Line MH9
Line A6
Line D3
Inlet C4
Inlet A5b
Inlet A5a
Inlet D3
Manhole MH9
Line G2
Prop. Water Line
Exist. 60" RCP
(to Remain)
Prop. Comm. Duct Bank
See Sheets 210-213
(44.0')
(52.0')
(46.0')
PI +76.85
W.M.
W.V.
AT&T DUCT BANK
AT&T TELEPHONE
ZAYO FIBER
WILTEL FIBER
KANSAS GAS SERVICE

Note:
For System C Storm Sewer, See Sheets 19 & 20
For System D Storm Sewer, See Sheet 21
For System G Storm Sewer, See Sheet 23
†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

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

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

1320
1315
1310
1305
1300
1295
1290
1285
1280

Structure Number: A3a
Type 2 Curb Inlet, Special
(L=6.2', W=9.5')
@ Sta. 31+38.28, 30.00' Lt.
High Edge Elevation = 1299.13
207

Structure Number: A3b
Type 2 Curb Inlet, Special
(L=6.2', W=9.5')
@ Sta. 31+45.29, 30.00' Lt.
High Edge Elevation = 1299.13
208

Structure Number: A4a
Type 2 Curb Inlet, Special
(L=6.2', W=9.5')
@ Sta. 33+70.99, 30.00' Lt.
High Edge Elevation = 1299.56
209

Structure Number: A4b
Type 2 Curb Inlet, Special
Sta. 405+90.40, Line C1-A4 =
@ Sta. 33+78.00, 30.00' Lt.
High Edge Elevation = 1299.56
210

Structure Number: MH3
Reinforced Concrete Manhole
(L=9.0', W=7.0')
Sta. 1301+75.50 Line G1-MH3 =
@ Sta. 34+46.49, 43.25' Lt.
Top Elevation = 1299.61
211

Structure Number: MH4
Reinforced Concrete Manhole
(L=5.0', W=7.0')
Sta. 504+17.80, Line D1-MH4 =
@ Sta. 35+68.68, 43.83' Lt.
Top Elevation = 1300.66
212

Proposed Ground
Existing Ground

Exist. 54" RCP
†℄ In=1292.41
℄ Out=1292.40
Line A3a
7.0 L.F.
54" Storm Sewer
@0.84%
†℄ Out=1292.39
℄ In=1292.40

Exist. 54" RCP
15" ℄ In=1296.45
†℄ In=1292.19
C4 ℄ In=1292.70
℄ Out=1292.19
℄ Out=1292.19
C4 ℄ In=1292.70
℄ In=1292.19
Line A4a
7.0 L.F.
54" Storm Sewer
@0.00%
CAUTION!! 14" Prop. Black
Hills Gas Line
LINE A
Line A4b
70.1 L.F.
60" Storm Sewer
@0.47%
CAUTION!! 14" Exist. Black
Hills Gas Line
(to be Relocated)
℄ In=1291.88
℄ In=1296.62
†℄ In=1291.70
MH9 ℄ In=1292.40
†Exist. ℄ Out=1291.48
Exist. 60" RCP
Prop. 8" Water Line
Top of Pipe = 1289.83
†℄ Out=1291.78
A5a ℄ In=1292.20
†℄ In=1291.78
Exist. 60" RCP

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

TranSystems
245 NORTH WACO
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FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
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SHEET TITLE:
WEST STREET
STORM SEWER
IMPROVEMENTS
SYSTEM A

SHEET NO.
15
SHEET 15 OF 262

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

Sta. 1100+21.30, Line A8-A7 =
@ Sta. 38+70.99, 45.35' Lt.
Modify Exist. Inlet & brick
the N, S, & E openings shut
and reset exist. inlet top.

Sta. 1100+00.00, Line A8-A7 =
@ Sta. 38+63.87, 30.00' Lt.
Remove Exist. Curb Inlet
Const. Inlet (Type 2, Double), A8a
(L=6.3')(W=3.3')
Install 18" x 7.1' Storm Sewer
(RCP)(N)
See Sheets 13-25
233

Sta. 1100+07.10, Line A8-A7 =
@ Sta. 38+71.01, 30.00' Lt.
234
Const. Inlet (Type 2, Double), A8b
(L=6.3')(W=3.3')
Install (30"x19") x 14.2' Storm Sewer
(RCP)(W)
See Sheets 13-25

Sta. 39+74.00, 45.55' Lt.
Adjust Exist. Manhole
Exist. Elev. = 1302.18
Prop. Elev. = 1301.55
Difference = -0.63'

@ Sta. 40+51.31, 73.98' Lt.
Exist. Manhole to Remain

CAUTION!! Exist. SS Line
@ Sta. 41+42.05, 63.00' Lt.
Const. Area Inlet (Back Yard), A11
Install 15" x 19.2' Storm Sewer
(RCP)(E)
Grade area inlet at 4:1 to match
existing ground. Property owner to
cut ditch to drain the parking lot
to inlet.
See Sheets 13-25

@ Sta. 41+43.60, 43.85' Lt.
Connect 15" RCP to Exist. Manhole
See Sheets 13-25

Sta. 800+10.40, Line A9-MH5 =
@ Sta. 42+57.00, 44.37' Lt.
214
Remove 6.33 L.F. of 48" RCP
Const. Manhole (Reinforced), MH5
(L=5.5')(W=5.0')
Connect Manhole to Exist. 48" RCP (S)
Connect Manhole to Exist. 48" RCP (N)
See Sheets 13-25

Sta. 800+00.00, Line A9-MH5 =
@ Sta. 42+57.00, 31.98' Lt.
Const. Inlet (Type 1) Curb Inlet, A9
(L=10.0')(W=4.0')
Install (30"x19") x 10.4' Storm Sewer
(RCP)(W)
See Sheets 13-25
238

Sta. 38+70.17, 24.79' Lt.
Const. Concrete Collar
Install 18" x 7.0' Storm Sewer (RCP)(W)
SUBSIDIARY to the bid item, "Temporary SWS Connection".
See Sheets 13-25

@ Sta. 41+71.99, 44.42' Lt.
Exist. Manhole to Remain

Batson Properties
1025 S. West St.
Wichita, KS 67213

Black Hills Energy
1000 S. West St.
Wichita, KS 67213

William E. & Corine E. Porter
1010 S. West St.
Wichita, KS 67213

Maximum Tractor
1002 S. West St.
Wichita, KS 67213

Exist. 35' Bldg. Setback
Exist. 40' Bldg. Setback
Exist. Utility Easement
Temp. Esmt.
Prop. Comm. Duct Bank
See Sheets
Exist. R/W
Prop. R/W
Prop. Water Line
Exist. Storm Sewer
(to Remain)
Prop. Sanitary Sewer
Prop. Comm. Duct Bank
See Sheets 210-213
Line A9
Inlet E5
Line E5
WEST STREET
℄ Proposed Improvements = ℄
IRVING STREET
MATCHLINE STA. 37+00.00
MATCHLINE STA. 43+00.00
AT&T DUCT BANK
AT&T TELEPHONE
KANSAS GAS SERVICE
ZAYO FIBER
W.M.
W.V.
F.H.

Note:
For System D Storm Sewer, See Sheet 21
For System E Storm Sewer, See Sheet 22
For System J Storm Sewer, See Sheet 23

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

All materials and labor needed to modify the existing area inlet at Sta. 38+70.99, 45.35' Lt. shall be paid for by the bid item, "Adjustment of Existing Inlet".

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

Structure Number: A7
Modify Exist. Area Inlet
Sta. 1100+21.30, Line A8-A7 =
@ Sta. 38+70.99, 45.35' Lt.
Top Elevation = 1301.37

Structure Number: EXMH1
Existing Manhole
@ Sta. 39+74.00, 45.55' Lt.
Top Elevation = 1301.55

Structure Number: EXMH2
Existing Manhole
@ Sta. 40+51.31, 73.98' Lt.
Top Elevation = 1301.55

Structure Number: EXMH3
Existing Manhole
@ Sta. 41+43.60, 43.85' Lt.
Top Elevation = 1300.86

Structure Number: EXMH4
Existing Manhole
@ Sta. 41+71.99, 44.42' Lt.
Top Elevation = 1301.34

Structure Number: MH5
Reinforced Concrete Manhole
(L=5.5', W=5.0')
Sta. 800+10.40, Line A13-MH5 =
@ Sta. 42+57.00, 44.37' Lt.
214
Top Elevation = 1301.79

Prop. 8" Sanitary Sewer
Top of Pipe = 1297.37

A11 ℄ In=1296.30
A9 ℄ In=1296.90

Exist. 60" RCP
Exist. 60" RCP
Exist. 60" RCP
Exist.
60"x38" RCPHE
Exist.
60"x38" RCPHE
Exist. 48" RCP

†℄ Out=1292.06
A8 ℄ In=1293.10
†℄ In=1292.06
†℄ Out=1292.15
†℄ In=1292.28
†℄ Out=1292.64
†℄ In=1292.64
†℄ Out=1292.68
†℄ In=1293.01
†℄ In=1292.68
†℄ In=1292.70
†℄ Out=1292.70
†℄ Out=1292.74
†℄ In=1292.74

LINE A

1320 1315 1310 1305 1300 1295 1290 1285 1280

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WICHITA, KANSAS 67202
PHONE: 316-303-3000
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
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DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET
STORM SEWER
IMPROVEMENTS
SYSTEM A

SHEET NO.
16
SHEET 16 OF 262

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

Sta. 1001+72.20, Line A10-MH6 = @ Sta. 43+68.30, 44.30' Lt. (215)
Remove 6.3 L.F. Exist. 48" RCP
Const. Manhole (Reinforced), MH6
(L=5.5')(W=5.0')
Connect Manhole to Exist. 48" RCP (S&N)
See Sheets 13-25

Sta. 1001+62.40, Line A10-MH6 = @ Sta. 43+68.70, 32.54' Lt. (239)
Const. Inlet (Type 1) Curb Inlet, A12
(L=10.0')(W=4.0')
Install 24" x 9.8' Storm Sewer
(RCP)(W)
See Sheets 13-25

Sta. 1000+73.40, Line A10-MH6 = @ Sta. 44+57.64, 35.88' Lt. (240)
Const. Inlet (Type 1) Curb Inlet, A13
(L=10.0')(W=4.0')
Install 24" x 89.0' Storm Sewer
(RCP)(S)
See Sheets 13-25

@ Sta. 45+63.56, 45.40' Lt. (261)
Remove Exist. Curb Inlet
Const. Manhole (Reinforced), MH14
(L=9.0')(W=7.5')
Connect Manhole to Exist. 48" RCP (S)
Connect Manhole to Exist. 30"x19" HERCP (E)
Connect Manhole to Exist. 2-24" RCP (NW)
See Sheets 13-25

Structure Number: A11
@ Sta. 46+31.79, 76.95' Lt.
Exist. Curb Inlet to Remain
See Sheets 13-25

Sta. 1000+07.10, Line A10-MH6 = @ Sta. 45+23.87, 35.95' Lt. (244)
Const. Inlet (Type 2, Double), A10b
(L=6.3')(W=3.3')
Install 18" x 66.3' Storm Sewer
(RCP)(S)
See Sheets 13-25

Sta. 1000+00.00, Line A10-MH6 = @ Sta. 45+31.01, 35.95' Lt. (245)
Const. Inlet (Type 2, Double), A10a
(L=6.3')(W=3.3')
Install 18" x 7.1' Storm Sewer
(RCP)(S)
See Sheets 13-25

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

Note:
There is minimal clearance between the aggregate base and top of existing storm sewer pipe to remain. Use caution whenever construction activity takes place in those areas.

The Contractor shall coordinate with the utility companies to locate any existing utilities that have not been previously located.

Any storm sewer adjacent to the curb & gutter or under any proposed pavement on mainline, sideroads or entrances shall be backfilled in accordance with the City of Wichita Specifications unless otherwise noted on the plans or by the Engineer.

For System E Storm Sewer, See Sheet 22

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The space between the Type 2 Special inlets shall be filled with Flowable Fill. The Flowable Fill shall be considered SUBSIDIARY to the inlet.

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

Structure Number: MH6
Reinforced Concrete Manhole
(L=5.5', W=5.0')
Sta. 1001+72.20, Line A10-MH6 =
@ Sta. 43+68.30, 44.30' Lt.
Top Elevation = 1300.82 (215)

Structure Number: MH14
Reinforced Concrete Manhole
(L=9.0', W=7.5')
@ Sta. 45+63.56, 45.40' Lt.
Top Elevation = 1300.03 (261)

Structure Number: A11
Existing Type I Curb Inlet
Sta. 1000+00.00, Line A11-MH6 =
@ Sta. 46+31.79, 76.95' Lt.
Top Elevation = 1300.26

Proposed Ground
Existing Ground
Exist. 48" RCP
A12 ℄ In=1295.30
†℄ Out=1292.80
†℄ In=1292.80
Exist. 48" RCP
Prop. 8" Water Line
Top of Pipe = 1297.10
CAUTION!! Prop. 2" Kansas Gas Line
2 - Exist. 24" RCP
†℄ Out=1293.70
CAUTION!! Exist. 2" Kansas Gas Line
CAUTION!! Exist. 4" Kansas Gas Line
Exist. 8" Water Line
(to be Relocated)
†℄ Out=1292.92
†30"x19" ℄ In=1293.50
†2-24" ℄ In=1293.18

LINE A

1320 1315 1310 1305 1300 1295 1290 1285 1280

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM A

SHEET NO.
17
SHEET 17 OF 262

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

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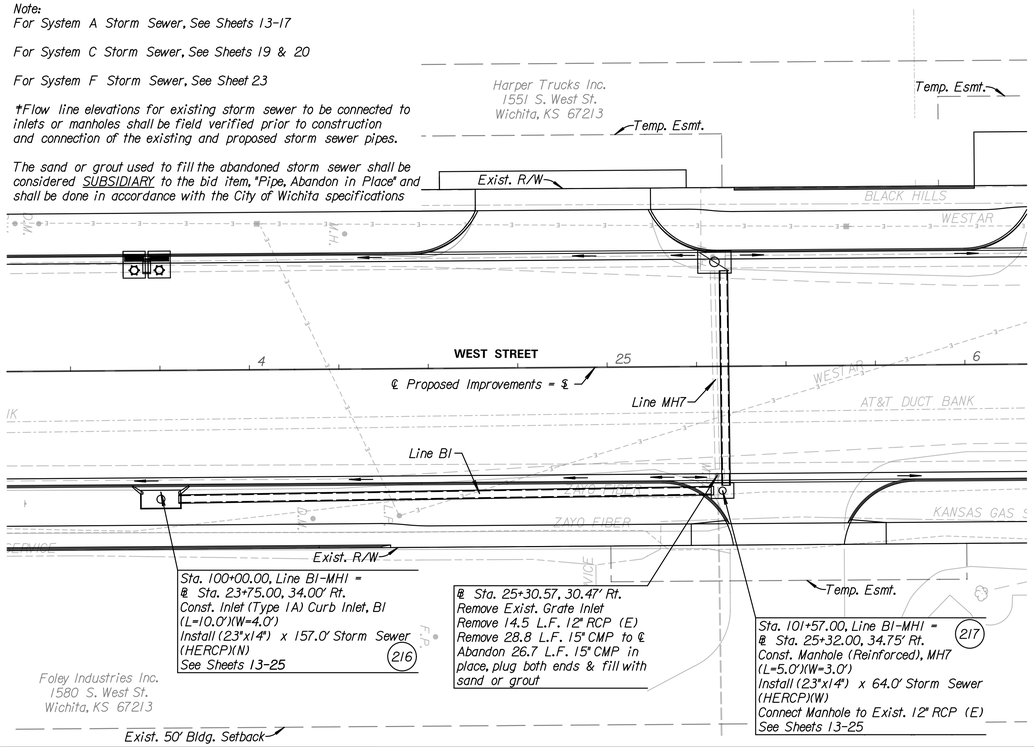
Note:
For System A Storm Sewer, See Sheets 13-17

For System C Storm Sewer, See Sheets 19 & 20

For System F Storm Sewer, See Sheet 23

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The sand or grout used to fill the abandoned storm sewer shall be considered SUBSIDIARY to the bid item, "Pipe, Abandon in Place" and shall be done in accordance with the City of Wichita specifications

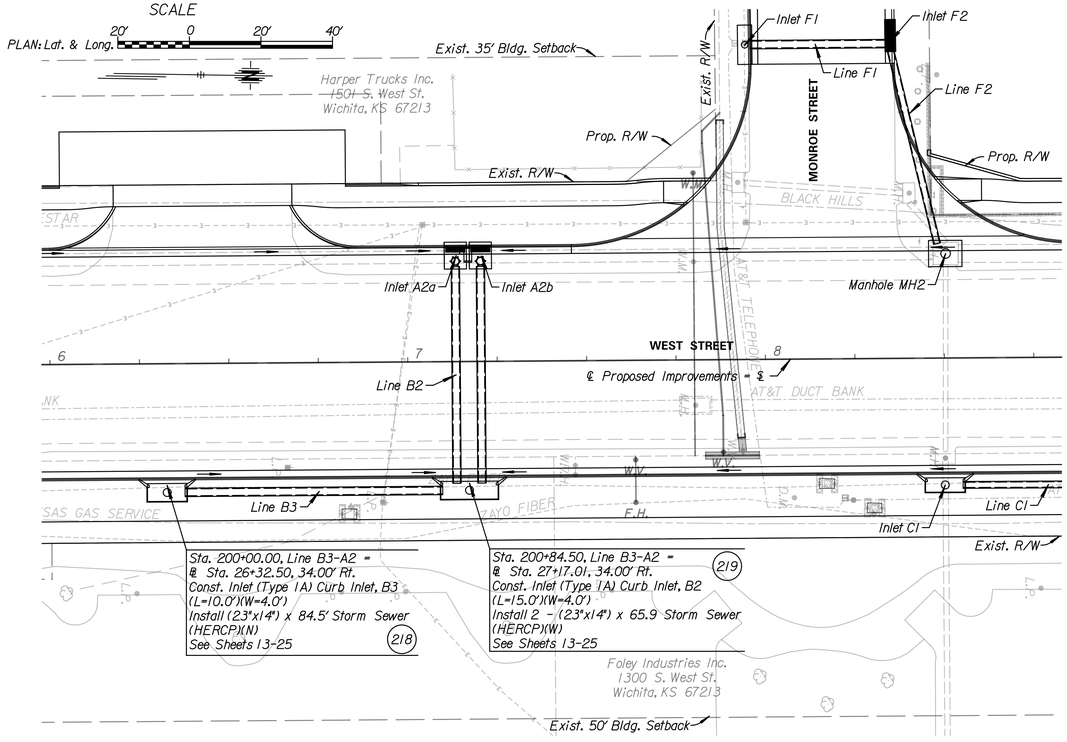


Sta. 100+00.00, Line B1-MH1 =
@ Sta. 23+75.00, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, B1
(L=10.0')(W=4.0')
Install (23"x14") x 157.0' Storm Sewer
(HERCP)(N)
See Sheets 13-25
216

@ Sta. 25+30.57, 30.47' Rt.
Remove Exist. Grate Inlet
Remove 14.5 L.F. 12" RCP (E)
Remove 28.8 L.F. 15" CMP to ℄
Abandon 26.7 L.F. 15" CMP in
place, plug both ends & fill with
sand or grout

Sta. 101+57.00, Line B1-MH1 =
@ Sta. 25+32.00, 34.75' Rt.
Const. Manhole (Reinforced), MH7
(L=5.0')(W=3.0')
Install (23"x14") x 64.0' Storm Sewer
(HERCP)(W)
Connect Manhole to Exist. 12" RCP (E)
See Sheets 13-25
217

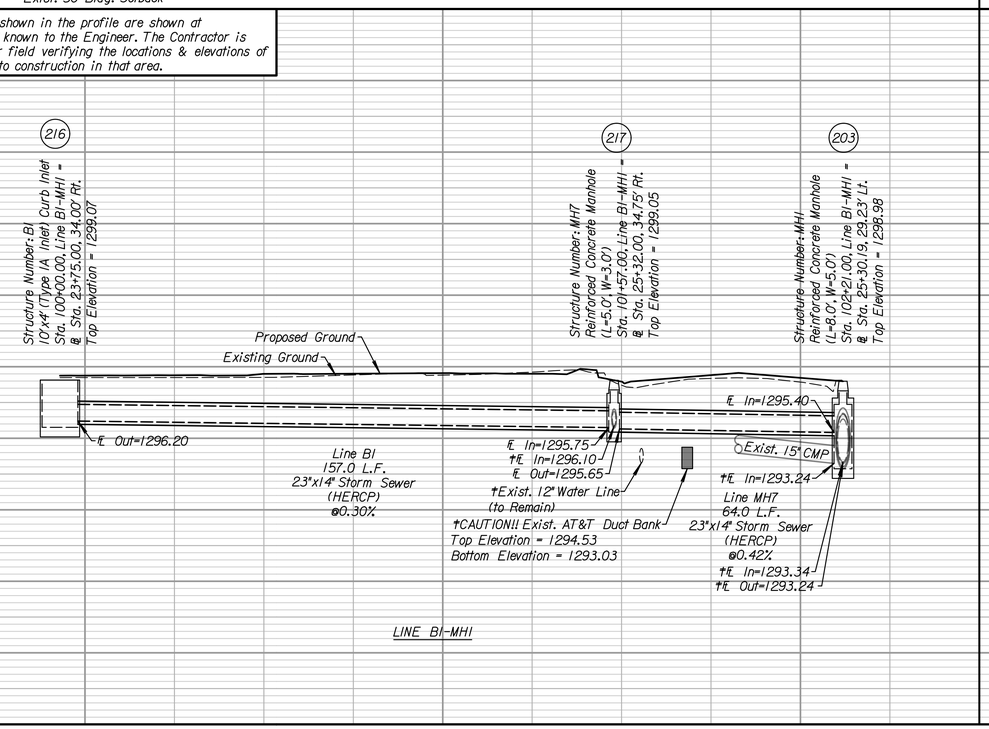
SCALE
20' 0 20' 40'
PLAN: Lat. & Long.



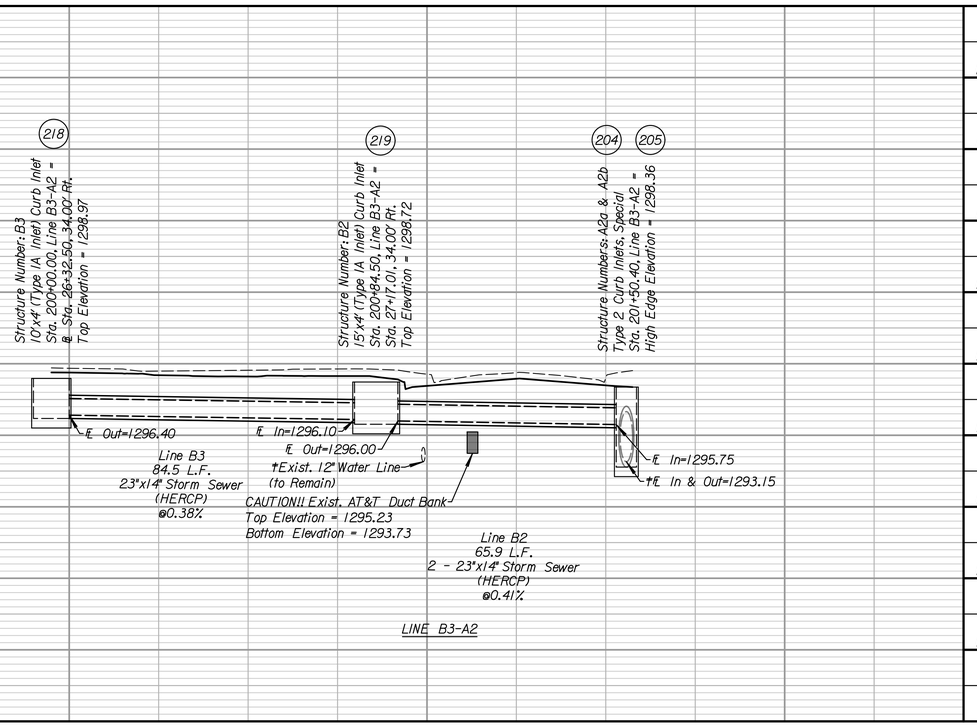
Sta. 200+00.00, Line B3-A2 =
@ Sta. 26+32.50, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, B3
(L=10.0')(W=4.0')
Install (23"x14") x 84.5' Storm Sewer
(HERCP)(N)
See Sheets 13-25
218

Sta. 200+84.50, Line B3-A2 =
@ Sta. 27+17.01, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, B2
(L=15.0')(W=4.0')
Install 2 - (23"x14") x 65.9 Storm Sewer
(HERCP)(W)
See Sheets 13-25
219

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



LINE B1-MH1



LINE B3-A2

Trans Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM B

SHEET NO.
18
SHEET 18 OF 262

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

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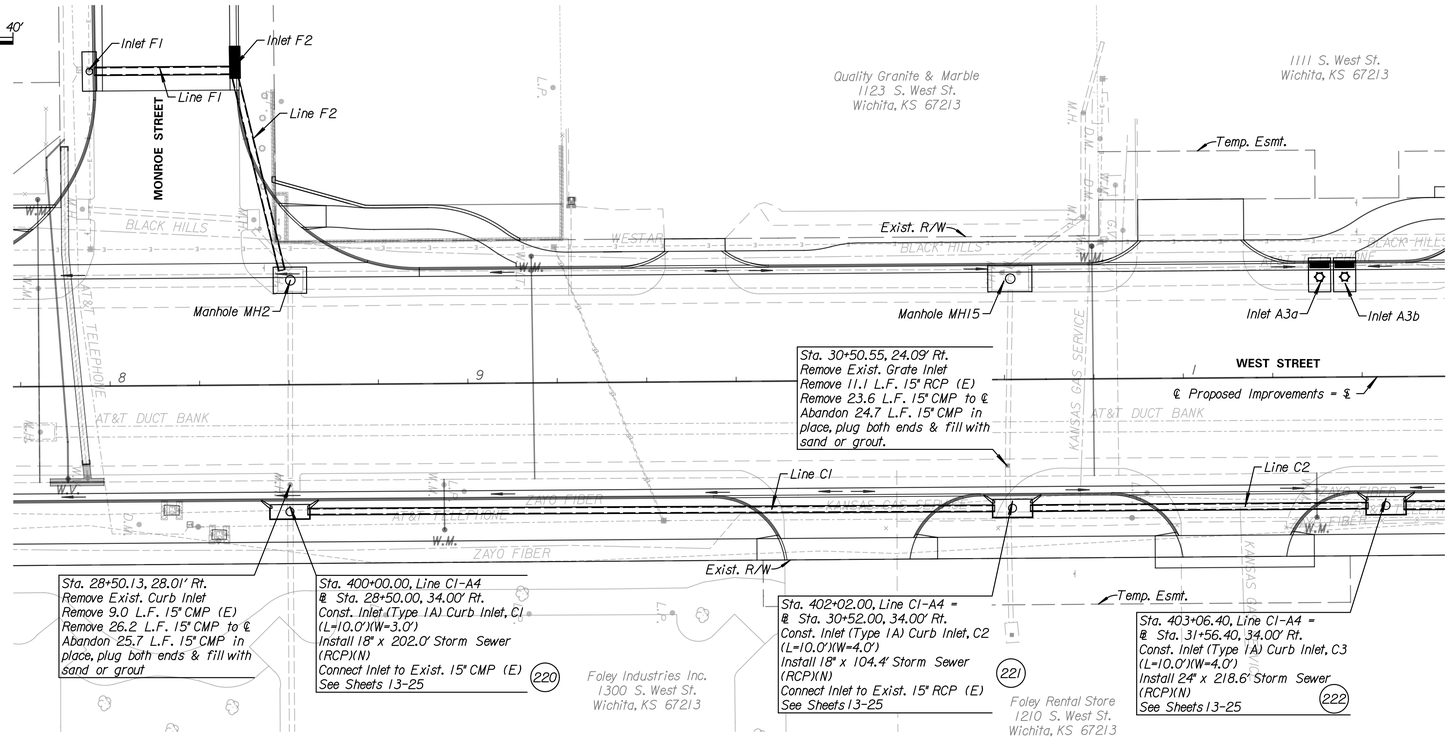
Note:
For System A Storm Sewer, See Sheets 13-17

For System F Storm Sewer, See Sheet 23

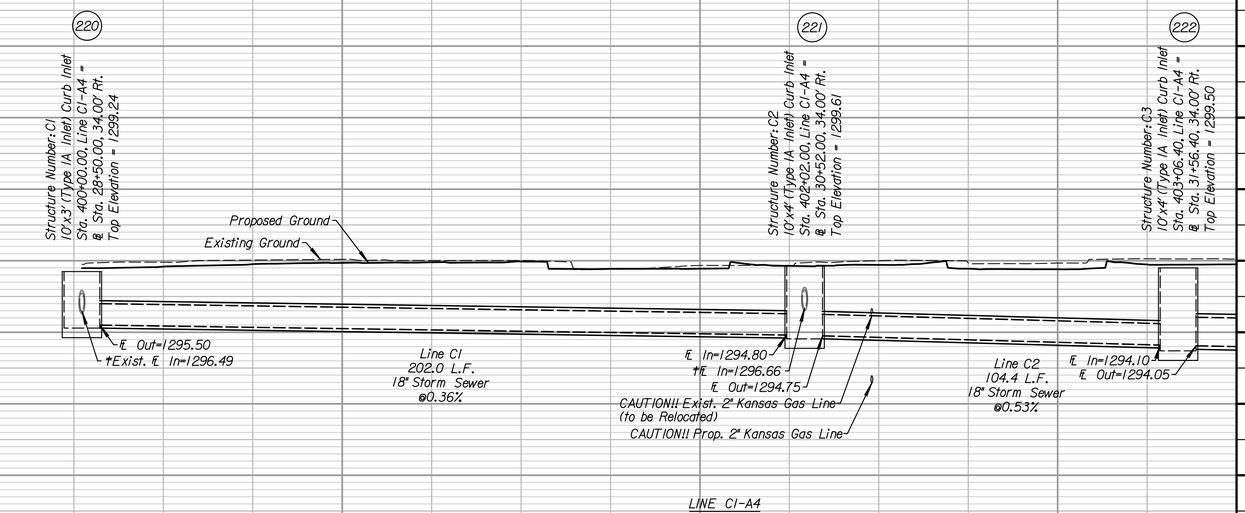
*Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The sand or grout used to fill the abandoned storm sewer shall be considered SUBSIDIARY to the bid item, "Pipe, Abandon in Place" and shall be done in accordance with the City of Wichita specifications

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



All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



LINE C1-A4

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
	MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM C

SHEET NO.
19
SHEET 19 OF 262

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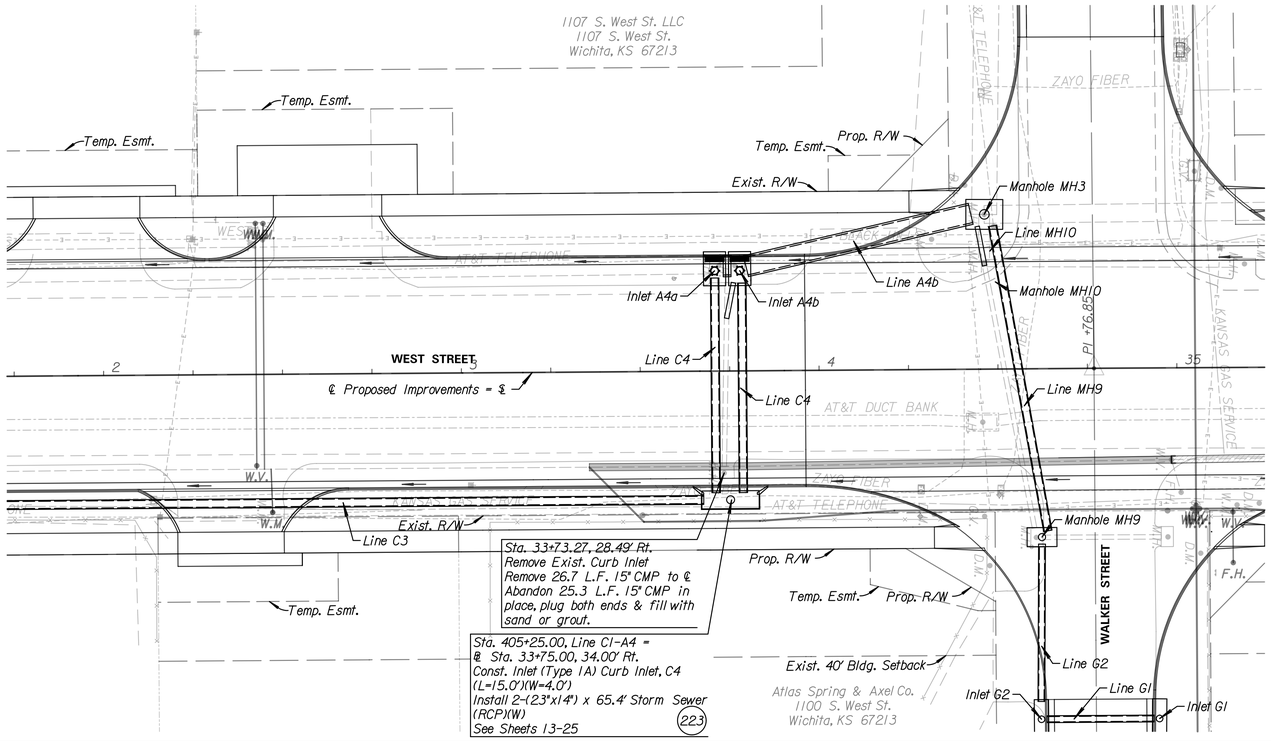
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



Note:
For System A Storm Sewer, See Sheets 13-17

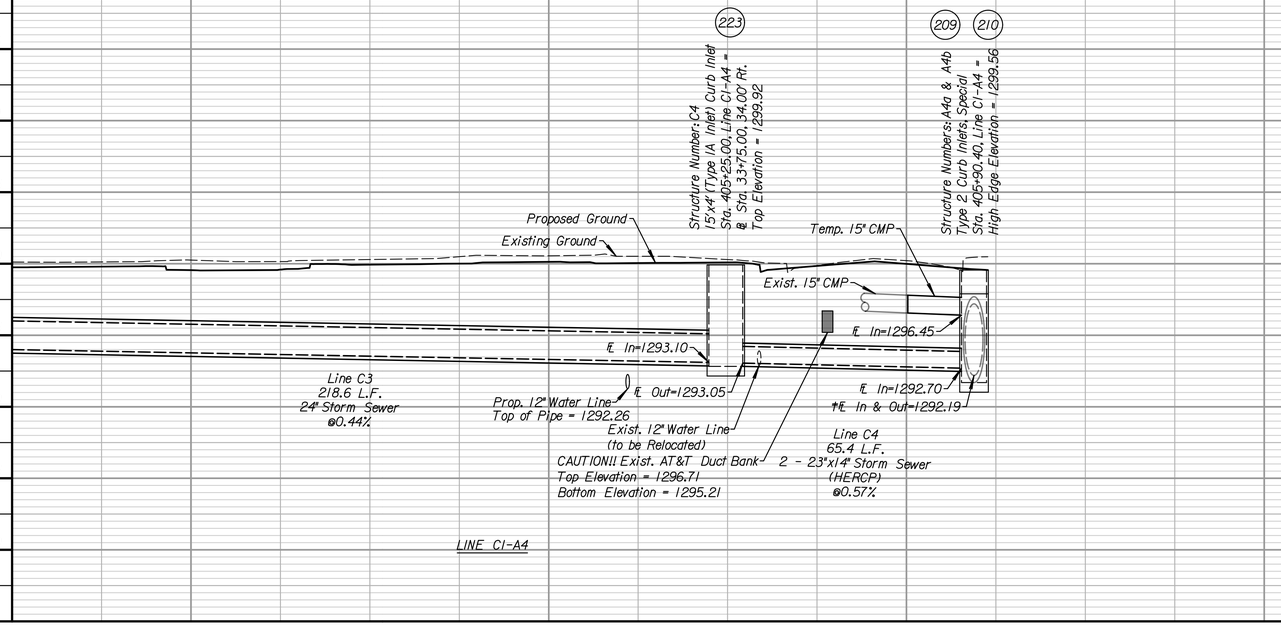
For System G Storm Sewer, See Sheet 23

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The sand or grout used to fill the abandoned storm sewer shall be considered SUBSIDIARY to the bid item, "Pipe, Abandon in Place" and shall be done in accordance with the City of Wichita specifications

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

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET
STORM SEWER
IMPROVEMENTS
SYSTEM C

SHEET NO.
20
SHEET 20 OF 262

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

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Note:
For System A Storm Sewer, See Sheets 13-17

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

The sand or grout used to fill the abandoned storm sewer shall be considered SUBSIDIARY to the bid item, "Pipe, Abandon in Place" and shall be done in accordance with the City of Wichita specifications

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

@ Sta. 35+61.44, 30.00' Lt.
Const. Inlet (Type 2, Double), A5b
(L=6.3')(W=3.3')
Install 18" x 7.1' Storm Sewer
(RCP)(N)
See Sheets 13-25
229

Sta. 601+41.40, Line A6-A5 =
Sta. 504+05.70 Line DI-MH4 =
@ Sta. 35+68.57, 30.00' Lt.
Const. Inlet (Type 2, Double), A5a
(L=6.3')(W=3.3')
Install 24' x 12.1' Storm Sewer
(RCP)(W)
See Sheets 13-25
230

Sta. 600+00.00, Line A6-A5 =
@ Sta. 37+10.00, 30.00' Lt.
Const. Inlet (Type 2, Double), A6a
(L=6.3')(W=3.3')
Install 18" x 7.1' Storm Sewer
(RCP)(S)
See Sheets 13-25
232

Sta. 600+07.10, Line A6-A5 =
@ Sta. 37+02.86, 30.00' Lt.
Const. Inlet (Type 2, Double), A6b
(L=6.3')(W=3.3')
Install 18" x 134.3' Storm Sewer
(RCP)(S)
See Sheets 13-25
231

Indingo Rising LC
1031 S. West St.
Wichita, KS 67213

Batson Properties
1025 S. West St.
Wichita, KS 67213

Exist. 35' Bldg. Setback
Temp. Esmt.
Prop. R/W
Exist. R/W
Line A6
Line A8b
Inlet A8a
Inlet A8b
Line D3
Line D2
Line DI
Prop. Water Line
Temp. Esmt.
Exist. 40' Bldg. Setback
Exist. R/W
Prop. Water Line

WEST STREET
℄ Proposed Improvements = ℄

Sta. 38+71.07, 30.36' Rt.
Remove Exist. Curb Inlet
Remove 28.1 L.F. 18" RCP to ℄
Abandon 30.8 L.F. 18" RCP in
place, plug both ends & fill with
sand or grout.

WALKER STREET

Sta. 503+38.00, Line DI-MH4 =
@ Sta. 35+62.00, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, D3
(L=10.0')(W=4.0')
Install (30"x19") x 67.7' Storm Sewer
(HERCP)(W)
See Sheets 13-25
224

Sta. 501+95.00, Line DI-MH4 =
@ Sta. 37+05.00, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, D2
(L=10.0')(W=4.0')
Install 24" x 143.0' Storm Sewer
(RCP)(S)
See Sheets 13-25
225

Sta. 500+83.50, Line DI-MH4 =
Sta. 1700+21.80, Line DIa-MH12 =
@ Sta. 38+16.47, 35.64' Rt.
Const. Manhole (Reinforced), MH12
(L=4.0')(W=4.0')
Install 18" x 111.5' Storm Sewer
(RCP)(S)
See Sheets 13-25
226

Sta. 1700+00.00, Line DIa-MH12 =
@ Sta. 38+15.75, 57.42' Rt.
Const. Area Inlet (Back Yard), DIa
Install 15" x 21.8' Storm Sewer
(RCP)(W)
See Sheets 13-25
227

Sta. 500+00.00, Line DI-MH4 =
@ Sta. 39+00.00, 34.00' Rt.
Const. Inlet (Type 1A) Curb Inlet, DI
(L=10.0')(W=3.0')
Install 18" x 83.5' Storm Sewer
(RCP)(S)
See Sheets 13-25
228

M6 Concrete Accesories
1040 S. West St.
Wichita, KS 67213

Sonny's Inc.
1030 S. West St.
Wichita, KS 67213

William E. & Corine E. Porter
1010 S. West St.
Wichita, KS 67213

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

Structure Number: MH4
Reinforced Concrete Manhole
(L=5.0', W=7.0')
Sta. 504+17.80, Line DI-MH4 =
@ Sta. 35+68.68, 43.83' Lt.
Top Elevation = 1300.66
212

Structure Number: A5a
Type 2 Curb Inlet, Double
Sta. 504+05.70 Line DI-MH4 =
Sta. 601+41.40, Line A6-A5 =
@ Sta. 35+68.57, 30.00' Lt.
Top Elevation = 1299.94
230

Structure Number: D3
10'x4' (Type 1A, Inlet) Curb Inlet
Sta. 503+38.00, Line DI-MH4 =
@ Sta. 35+62.00, 34.00' Rt.
Top Elevation = 1300.29
224

Structure Number: D2
10'x4' (Type 1A, Inlet) Curb Inlet
Sta. 501+95.00, Line DI-MH4 =
@ Sta. 37+05.00, 34.00' Rt.
Top Elevation = 1300.57
225

Structure Number: MH12
Reinforced Concrete Manhole
(L=4.0', W=4.0')
Sta. 500+83.50, Line DI-MH4 =
Sta. 1700+21.80, Line DIa-MH12 =
@ Sta. 38+16.47, 35.64' Rt.
Top Elevation = 1300.92
226

Structure Number: DI
10'x3' (Type 1A, Inlet) Curb Inlet
Sta. 500+00.00, Line DI-MH4 =
@ Sta. 39+00.00, 34.00' Rt.
Top Elevation = 1300.96
228

Proposed Ground
Existing Ground
A6b ℄ In=1296.00
A5b ℄ In=1296.90
℄ In=1294.60
℄ In=1292.35
℄ Out=1292.25
℄ Out=1292.60
†Exist. 60" ℄ In & Out=1291.78
℄ In=1292.20
CAUTION!! Exist. 14" Black Hills Gas Line
(to be Relocated)
CAUTION!! 14" Prop. Black
Hills Gas Line
Line A5a
12.1 L.F.
24" Storm Sewer
@0.58%
Line D3
67.7 L.F.
30"x19" Storm Sewer
(HERCP)
@0.39%
Exist. 12" Water Line
(to be Relocated)
CAUTION!! Exist. AT&T Duct Bank
Top Elevation = 1296.86
Bottom Elevation = 1295.36
Line D2
143.0 L.F.
24" Storm Sewer
@0.41%
℄ Out=1295.15
℄ In=1295.50
Line MH12
111.5 L.F.
18" Concrete Pipe
@0.71%
℄ Out=1296.25
DIa ℄ In=1297.40
℄ In=1296.35
Line DI
83.5 L.F.
18" Concrete Pipe
@0.38%
℄ Out=1296.65

LINE DI-MH4

1320 1315 1310 1305 1300 1295 1290 1285 1280

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM D

SHEET NO.
21
SHEET 21 OF 262

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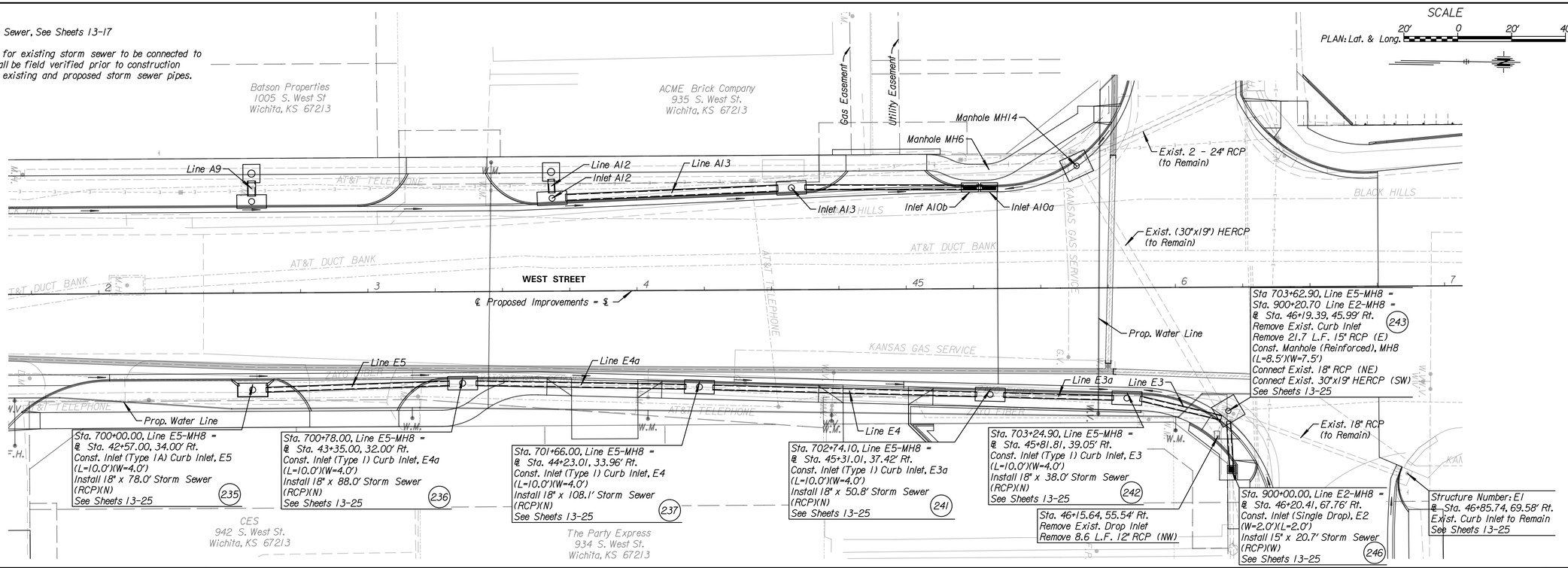
Note:
For System A Storm Sewer, See Sheets 13-17

†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

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



All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM E

SHEET NO.
22
SHEET 22 OF 262

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

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Note:
There is minimal clearance between the aggregate base and top of existing storm sewer pipe to remain. Use caution whenever construction activity takes place in those areas.

The Contractor shall coordinate with the utility companies to locate any existing utilities that have not been previously located.

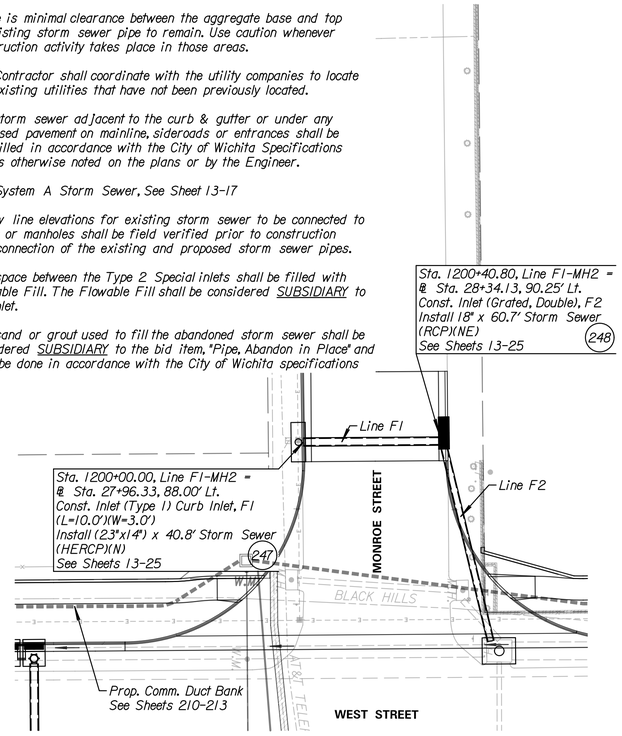
Any storm sewer adjacent to the curb & gutter or under any proposed pavement on mainline, sideroads or entrances shall be backfilled in accordance with the City of Wichita Specifications unless otherwise noted on the plans or by the Engineer.

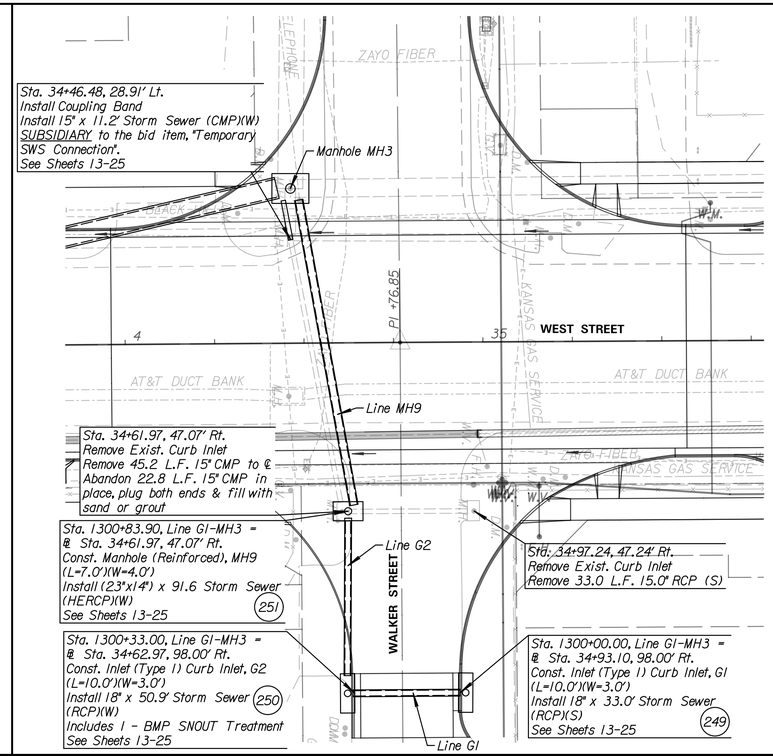
For System A Storm Sewer, See Sheet 13-17

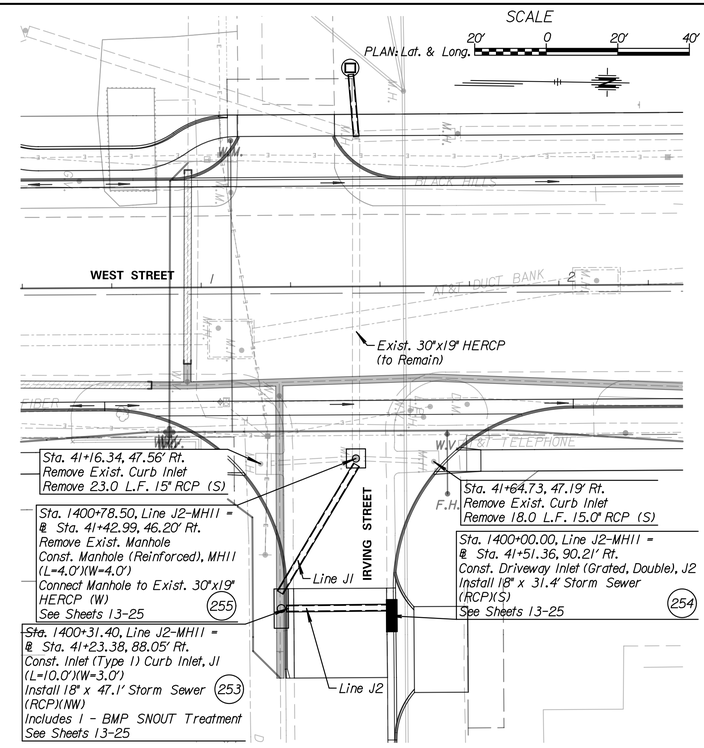
†Flow line elevations for existing storm sewer to be connected to inlets or manholes shall be field verified prior to construction and connection of the existing and proposed storm sewer pipes.

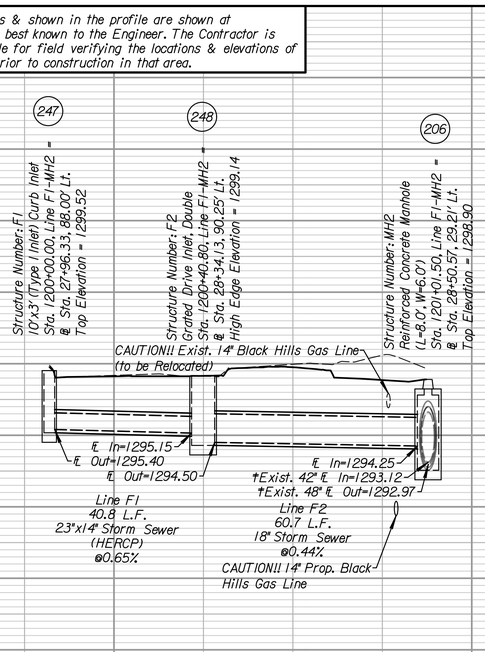
The space between the Type 2 Special inlets shall be filled with Flowable Fill. The Flowable Fill shall be considered SUBSIDIARY to the inlet.

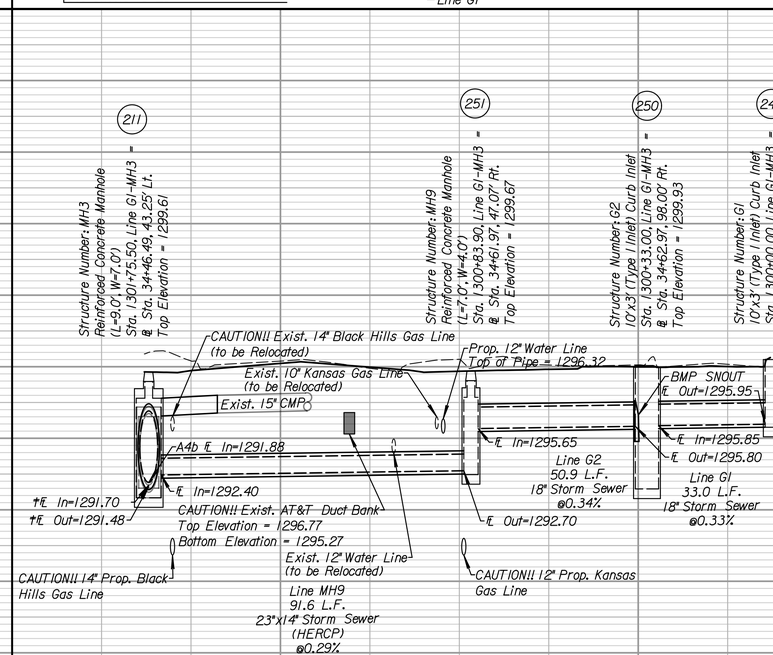
The sand or grout used to fill the abandoned storm sewer shall be considered SUBSIDIARY to the bid item, "Pipe, Abandon in Place" and shall be done in accordance with the City of Wichita specifications

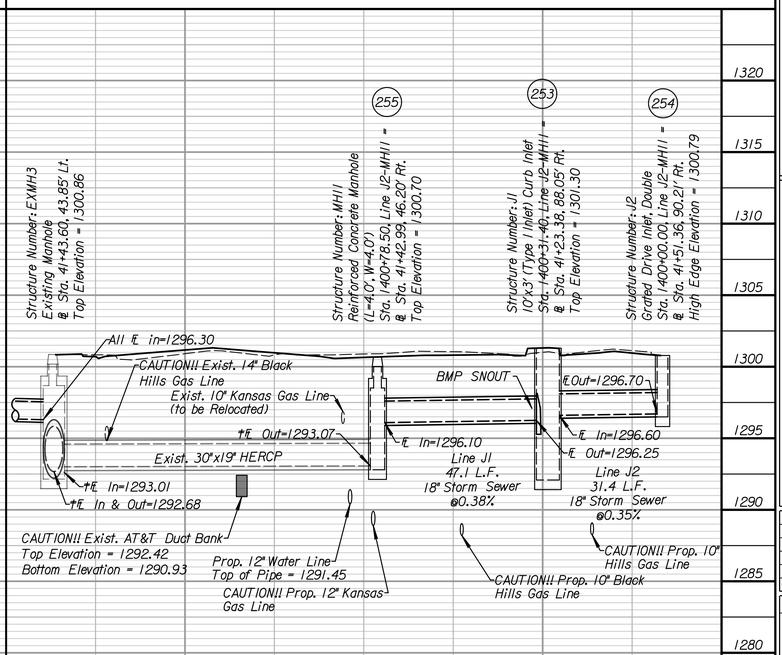












IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

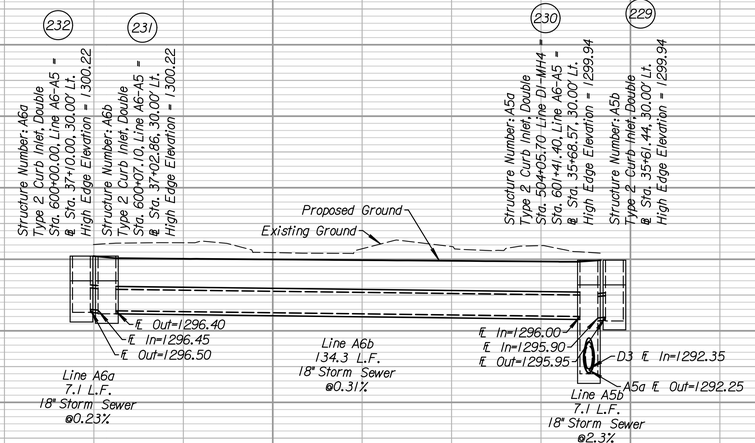
WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS
CITY OF WICHITA

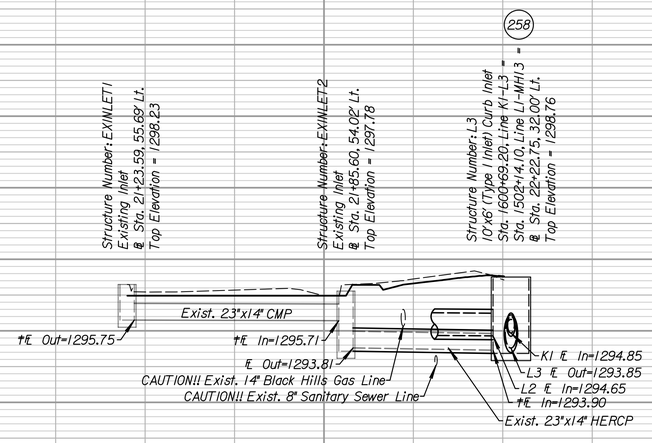
SHEET TITLE:
WEST STREET STORM SEWER IMPROVEMENTS SYSTEM F, G, J

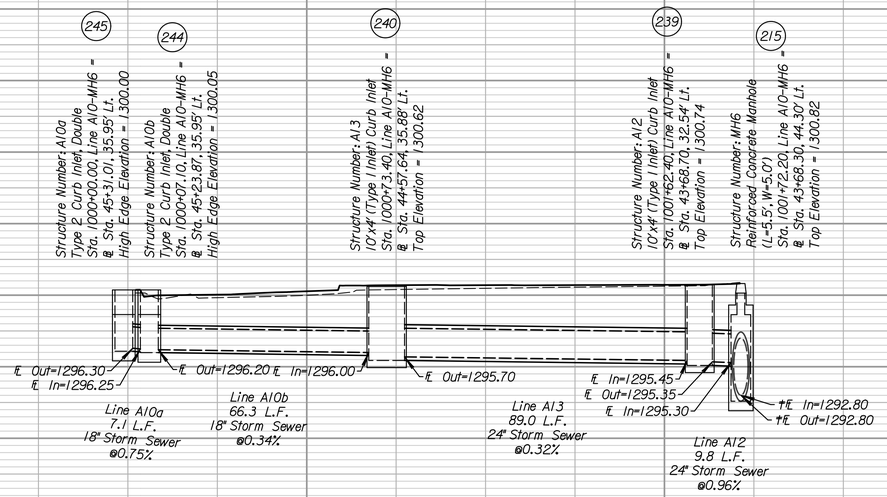
SHEET NO.
23
SHEET 23 OF 262

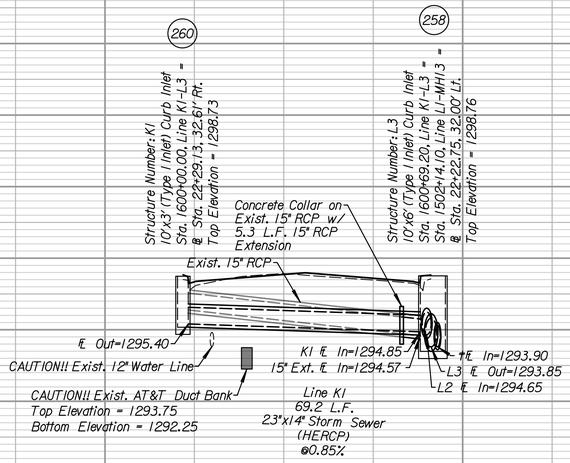
mhesmer
2/25/2020 - 1:36:20 PM - c:\transystems\pw_local\transystems\pw-pw1\mhesmer\d0519510\C-SDR-M01-110.dgn

All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.









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PHONE: 316-303-3000
FAX: 316-303-0156

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
SCALE:	1"=20'
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DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
STORM SEWER
IMPROVEMENTS

SHEET NO.

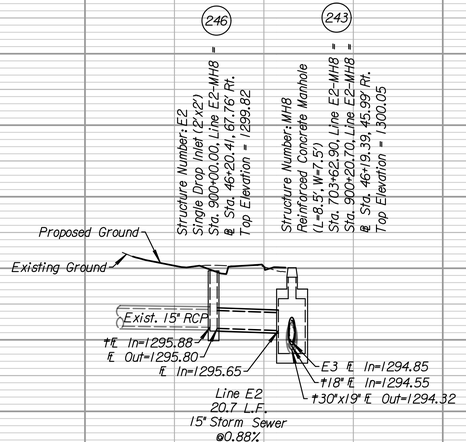
24

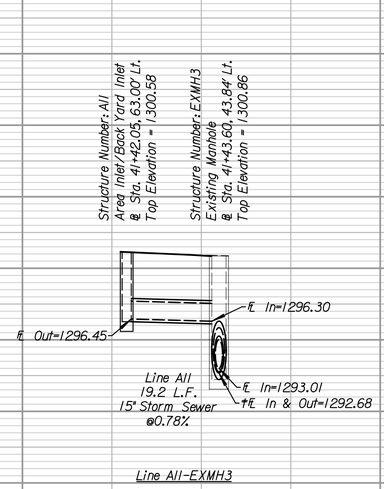
SHEET 24 OF 262

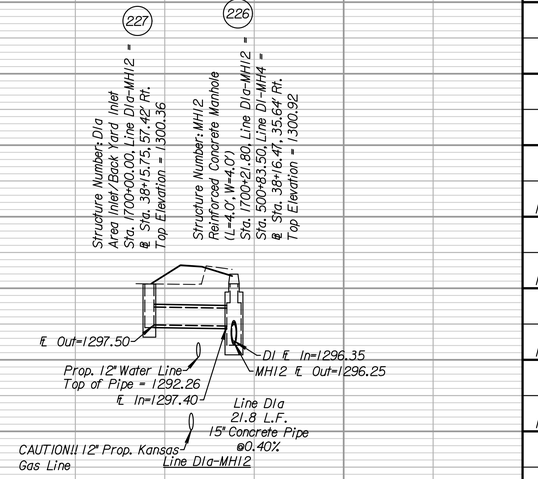
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

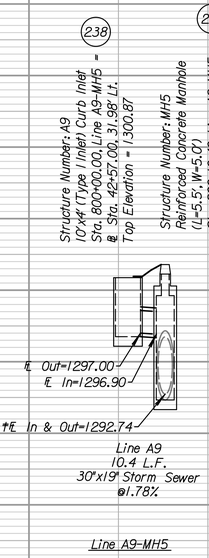
mhoesner
2/25/2020 - 1:38:24 PM - c:\transystems\pw_local\transystcorp-pw1\mhoesner\d0519510C-SDR-M01-201.dgn

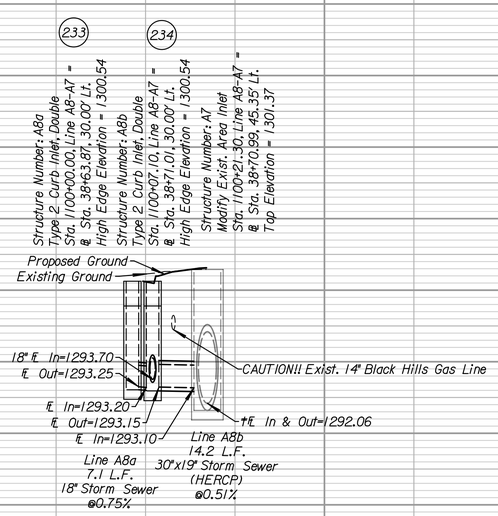
All utilities & shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.

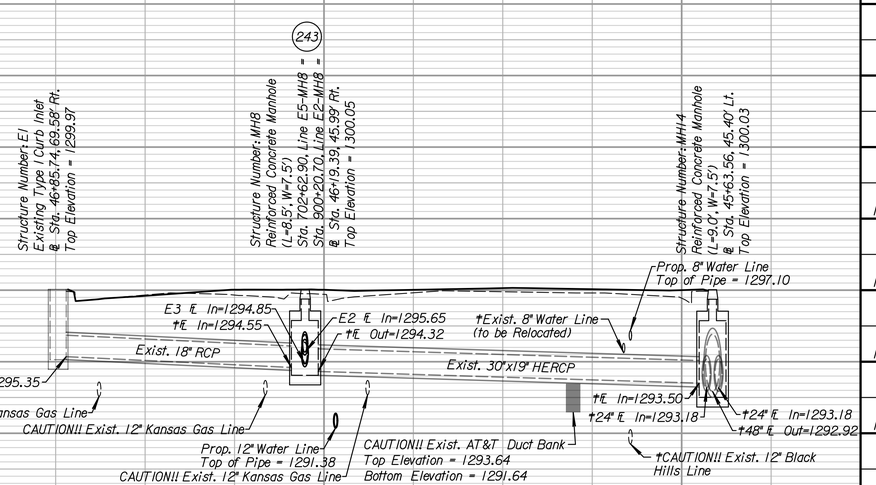












Line E1-MH14

Trans Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
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FAX: 316-303-0156

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
STORM SEWER
IMPROVEMENTS

SHEET NO.
25
SHEET 25 OF 262

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

mhoemer
2/25/2020 - 1:38:28 PM - c:\transystems\pw_local\transystems-pw1\mhoemer\d0519510\C-SDR-M01-202.dgn

SCHEDULE OF STORM SEWER INSTALLATIONS (SMOOTH PIPE SYSTEM)

ROUTING SEQUENCE FROM	TO	INSTALL LOCATIONS STA.	ROUTE	OFFSET	TYPE OF INSTALLATION: TYPE II SPECIAL	TYPE II DOUBLE	REINF. MANHOLE	TYPE I INLET	TYPE IA INLET	GRATED DOUBLE	SINGLE DROP	AREA INLET	DIMENSIONS: L (FT.)	W (FT.)	H (FT.)	ELEVATIONS: TOP ⊛	FLOOR	INFLOW CONDUITS: CONDUIT SIZE	FLOWLINE ELEV.	CONDUIT SIZE	FLOWLINE ELEV.	CONDUIT SIZE	FLOWLINE ELEV.	OUTFLOW CONDUIT: CONDUIT SIZE	FLOWLINE ELEV.	PIPE LENGTHS: 15" RCP	18" RCP	24" RCP	36" RCP	42" RCP	54" RCP	60" RCP	23"x14" HERCP	30"x19" HERCP	38"X24" HERCP
LINE A																																			
A1a	A1b	23+67.99	West St.	30.00' Lt.	1								6.2	7.5	6.0	1298.71	1293.53	Exist. 36"	1293.55					36"	1293.53				7.0						
A1b	MH1	23+75.00	West St.	30.00' Lt.	1								6.2	7.5	6.0	1298.71	1293.50	36"	1293.52					Exist. 36"	1293.50										
MH1	A2a	25+30.19	West St.	29.23' Lt.			1						8.0	5.0	6.5	1298.98	1293.24	Exist. 36"	1293.34	23"x14"	1295.40	†Exist. 15"	1293.24	Exist. 42"	1293.24										
A2a	A2b	27+13.51	West St.	30.00' Lt.	1								6.2	7.5	6.0	1298.36	1293.15	Exist. 42"	1293.15	23"x14"	1295.75			42"	1293.15					7.0					
A2b	MH2	27+20.51	West St.	30.00' Lt.	1								6.2	7.5	6.0	1298.36	1293.15	42"	1293.15	23"x14"	1295.75			Exist. 42"	1293.15										
MH2	MH15	28+50.57	West St.	29.21' Lt			1						8.0	6.0	6.5	1298.90	1292.97	Exist. 42"	1293.12	18"	1294.25	Exist. 15"	1296.17	Exist. 48"	1292.97										
MH15	A3a	30+51.81	West St.	28.18' Lt.			1						11.0	6.0	7.5	1299.29	1292.50	Exist. 48"	1292.60	Exist. 18"	1295.59	Exist. 15"	1296.59	Exist. 54"	1292.50										
A3a	A3b	31+38.28	West St.	30.00' Lt.	1								6.2	9.5	7.5	1299.13	1292.40	Exist. 54"	1292.41					54"	1292.40						7.0				
A3b	A4a	31+45.29	West St.	30.00' Lt.	1								6.2	9.5	7.5	1299.13	1292.39	54"	1292.40					Exist. 54"	1292.39										
A4a	A4b	33+70.99	West St.	30.00' Lt.	1								6.2	9.5	8.0	1299.56	1292.19	Exist. 54"	1292.19	23"x14"	1292.70			54"	1292.19						7.0				
A4b	MH3	33+78.00	West St.	30.00' Lt.	1								6.2	9.5	8.0	1299.56	1292.19	54"	1292.19	23"x14"	1292.70	†15"	1296.45	60"	1292.19							70.1			
MH3	MH4	34+46.49	West St.	43.25' Lt.			1						9.0	7.0	9.0	1299.61	1291.48	60"	1291.88	Exist. 60"	1291.70	23"x14"	1292.40	7'x5' RCB	1291.48										
MH3	MH4	-	-	-									-	-	-	-	-	Exist. 15"	1296.62																
MH4	A7	35+68.68	West St.	43.83' Lt.			1						5.0	7.0	9.5	1300.66	1291.78	Exist. 60"	1291.78	24"	1292.20			Exist. 60"	1291.78										
A7	EXMH1	38+70.99	West St.	45.35' Lt.									-	-	-	1301.37	1292.06	Exist. 60"	1292.06	30"x19"	1293.10			Exist. 60"	1292.06										
EXMH1	EXMH2	39+74.00	West St.	45.55' Lt.									-	-	-	-	-	Exist. 60"	1292.28					Exist. 60"	1292.15										
EXMH2	EXMH3	40+51.31	West St.	73.98' Lt.									-	-	-	-	-	Exist. 60"x38"	1292.64					Exist. 60"	1292.64										
EXMH3	EXMH4	41+43.60	West St.	43.85' Lt.									-	-	-	-	-	Exist. 60"x38"	1292.68	Exist. 30"x19"	1293.01	15"	1296.30	Exist. 60"x38"	1292.68										
EXMH4	MH5	41+71.99	West St.	44.42' Lt.									-	-	-	-	-	Exist. 48"	1292.70					Exist. 60"x38"	1292.70										
MH5	MH6	42+57.00	West St.	44.37' Lt.			1						5.5	5.0	10.0	1301.79	1292.74	Exist. 48"	1292.74	30"x19"	1296.90			Exist. 48"	1292.74										
MH6	MH14	43+68.30	West St.	44.30' Lt.			1						5.5	5.0	9.0	1300.82	1292.80	Exist. 48"	1292.80	24"	1295.30			Exist. 48"	1292.80										
MH14	A11	45+63.56	West St.	45.40' Lt.			1						9.0	7.5	8.0	1300.03	1292.92	2-Exist. 24"	1293.18	Exist. 30"x19"	1293.50			Exist. 48"	1292.92										
A6a	A6b	37+10.00	West St.	30.00' Lt.		1							6.3	3.3	4.5	1300.22	1296.50							18"	1296.50		7.1								
A6b	A5a	37+02.86	West St.	30.00' Lt.		1							6.3	3.3	4.5	1300.22	1296.40	18"	1296.45					18"	1296.40		134.3								
A5b	A5a	35+61.44	West St.	30.00' Lt.		1							6.3	3.3	4.5	1299.94	1295.95							18"	1295.95		7.1								
A8a	A8b	38+63.87	West St.	30.00' Lt.		1							6.3	3.3	8.0	1300.54	1293.25							18"	1293.25		7.1								
A8b	A7	38+71.01	West St.	30.00' Lt.		1							6.3	3.3	8.0	1300.54	1293.15	18"	1293.20	†18"	1293.70			30"x19"	1293.15									14.2	
A10a	A10b	45+31.01	West St.	35.95' Lt.		1							6.3	3.3	4.5	1300.00	1296.30							18"	1296.30		7.1								
A10b	A13	45+23.87	West St.	35.95' Lt.		1							6.3	3.3	4.5	1300.05	1296.20	18"	1296.25					18"	1296.20		66.3								
A13	A12	44+57.64	West St.	35.88' Lt.				1					10.0	4.0	5.5	1300.62	1295.70	18"	1296.00					24"	1295.70			89.0							
A12	MH6	43+68.70	West St.	32.54' Lt.				1					10.0	4.0	6.0	1300.74	1295.35	24"	1295.45					24"	1295.35			9.8							
A9	MH5	42+57.00	West St.	31.98' Lt.				1					10.0	4.0	4.5	1300.87	1297.00							30"x19"	1297.00									10.4	
A11	EXMH3	41+42.05	West St.	63.00' Lt.								1	3.0	3.0	5.0	1300.58	1296.45							15"	1296.45	19.2									
LINE B																																			
B1	MH7	23+75.00	West St.	34.00' Rt.					1				10.0	4.0	3.5	1299.07	1296.20							23"x14"	1296.20								157.0		
MH7	MH1	25+32.00	West St.	34.75' Rt.			1						5.0	3.0	4.0	1299.05	1295.65	23"x14"	1295.75	Exist. 12"	1296.10			23"x14"	1295.65								64.0		
B3	B2	26+32.50	West St.	34.00' Rt.					1				10.0	4.0	3.5	1298.97	1296.40							23"x14"	1296.40								84.5		
B2	A2a & A2b	27+17.01	West St.	34.00' Rt.					1				15.0	4.0	3.5	1298.72	1296.00	23"x14"	1296.10					2-23"x14"	1296.00								131.8		
LINE C																																			
C1	C2	28+50.00	West St.	34.00' Rt.					1				10.0	3.0	4.5	1299.24	1295.50	Exist. 15"	1296.49					18"	1295.50		202.0								
C2	C3	30+52.00	West St.	34.00' Rt.					1				10.0	4.0	5.5	1299.61	1294.75	18"	1294.80	Exist. 15"	1296.66			18"	1294.75		104.4								
C3	C4	31+56.40	West St.	34.00' Rt.					1				10.0	4.0	6.0	1299.50	1294.05	18"	1294.10					24"	1294.05			218.6							
C4	A4a & A4b	33+75.00	West St.	34.00' Rt.					1				15.0	4.0	7.5	1299.92	1293.05	24"	1293.10					2-23"x14"	1293.05								130.8		
LINE D																																			
D1	MH12	39+00.00	West St.	34.00' Rt.					1				10.0	3.0	5.0	1300.96	1296.65							18"	1296.65		83.5								
MH12	D2	38+16.47	West St.	35.64' Rt.			1						4.0	4.0	5.5	1300.92	1296.25	18"	1296.35	15"	1297.40			18"	1296.25		111.5								
D2	D3	37+05.00	West St.	34.00' Rt.					1				10.0	4.0	6.0	1300.57	1295.15	18"	1295.50					24"	1295.15			143.0							
D3	A5a	35+62.00	West St.	34.00' Rt.					1				10.0	4.0	8.5	1300.29	1292.60	24"	1294.60					30"x19"	1292.60								67.7		
A5a	MH4	35+68.57	West St.	30.00' Lt.		1							6.3	3.3	8.5	1299.94	1292.25	30"x19"	1292.35	18"	1295.90	18"	1296.00	24"	1292.25			12.1							
D1a	MH12	38+15.75	West St.	57.42' Rt.								1	3.0	3.0	3.5	1300.36	1297.50							15"	1297.50	21.8									
LINE E																																			
E5	E4a	42+57.00	West St.	34.00' Rt.					1				10.0	4.0	5.5	1300.79	1296.15							18"	1296.15		78.0								
E4a	E4	43+35.00	West St.	32.00' Rt.				1					10.0	4.0	5.5	1300.78	1295.85	18"	1295.99					18"	1295.85		88.0								
E4	E3a	44+23.01	West St.	33.96' Rt.				1					10.0	4.0	5.5	1300.33	1295.50	18"	1295.60					18"	1295.50		108.1								
E3a	E3	45+31.01	West St.	37.42' Rt.				1					10.0	4.0	6.0	1300.49	1295.15	18"	1295.20					18"	1295.15		50.8								
E3	MH8	45+81.81	West St.	39.05' Rt.				1					10.0	4.0	6.0	1300.35	1294.95	18"	1295.00					18"	1294.95		38.0								
MH8	MH14	46+19.39	West St.	45.99' Rt.			1						8.5	7.5	6.5	1300.05	1294.32	18"	1294.85	15"	1295.65	Exist. 18"	1294.55	Exist. 30"x19"	1294.32										
E2	MH8	46+20.41	West St.	67.76' Rt.							1		2.0	2.0	5.0	1299.82	1295.80	Exist. 15"	1295.88					15"	1295.80	20.7									
LINE F																																			
F1	F2	27+96.33	Monroe St.	88.00' Lt.				1					10.0	3.0	5.0	1299.52	1295.40							23"x14"	1295.40								40.8		
F2	MH2	28+34.13	Monroe St.	90.25' Lt.					1				9.0	3.0	5.5	1299.14	1294.50	23"x14"	1295.15					18"	1294.50		60.7								
LINE G																																			
G1	G2	34+93.10	Walker St.	98.00' Rt.				1					10.0	3.0	5.5	1300.47	1295.95							18"	1295.95		33.0								
G2	MH9	34+62.97	Walker St.	98.00' Rt.				1					10.0	3.0	9.5	1299.93	1295.80	18"	1295.85					18"	1295.80		50.9								
MH9	MH3	34+61.97	Walker St.	47.07' Rt.			1						7.0	4.0	7.5	1299.67	1292.70	18"	1295.65					23"x14"	1292.70								91.6		
LINE J																																			
J2	J1	41+51.36	Irving St.	90.21' Rt.						1			9.0	3.0	5.0	1300.79	1296.70							18"	1296.70		31.4								
J1	MH11	41+23.38	Irving St.	88.05' Rt.				1					10.0	3.0	10.0	1301.30	1296.25	18"	1296.60					18"	1296.25		47.1								
MH11	EXMH3	41+42.99	Irving St.	46.20' Rt.			1						4.0	4.0	8.5	1300.70	1293.07	18"	1296.10					Exist. 30"x19"	1293.07										
LINE L																																			
L1	L2	20+63.01	West St.	32.19' Rt.				1					10.0	4.0	3.5	1298.46	1295.50							23"x14"	1295.50								69.7		
L2	L3	20+78.06	West St.	32.00' Lt.				1					10.0	4.0	4.5	1298.48	1294.90	23"x14"	1294.95					30"x19"	1294.90									144.4	
L3	MH13	22+22.75	West St.	32.00' Lt.				1					10.0	6.0	5.5	1298.76	1293.85	30"x19"	1294.65	Exist. 23"x14"	1293.90	23"x14"	1294.85	38"x24"	1293.85										53.2
L3	MH13	-	-	-									-	-	-	-	-	†Exist. 15" RCP	1294.57																
MH13	A1a	22+75.58	West St.	28.56' Lt.			1						5.0	5.0	5.5	1298.52	1293.73	38"x24"	1293.75					Exist. 36"	1293.73										
LINE K																																			
K1	L3	22+29.13	West St.	32.61' Rt.				1					10.0	3.0	4.0	1298.73	1295.40							23"x14"	1295.40								69.2		
				TOTAL	8	8	14	15	11	2	1	2													TOTAL	61.7	1316.4	472.5	7.0	7.0	14.0	70.1	839.4	236.7	53.2

†Existing storm sewer temporary pipe connections to the proposed inlets for drainage during construction of Phase 2. These pipes will be abandoned in place, plugged on both ends and filled with sand or grout in accordance with the City of Wichita Specifications. For more information see the storm sewer plan and profile sheets, See Sheets 13-25

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS: MARK	DATE	DESCRIPTION

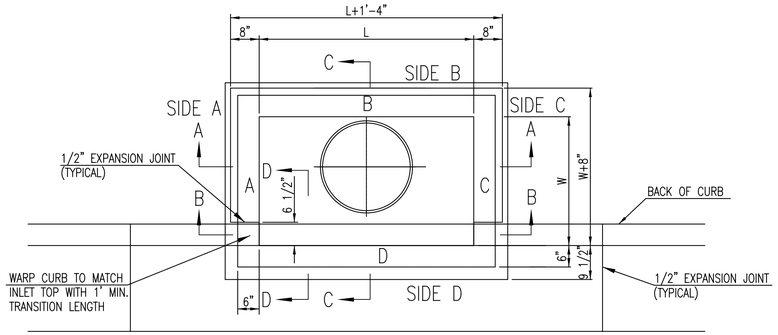
PROJ NO: 472-85296
SCALE: N/A
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
SCHEDULE OF STORM SEWER

SHEET NO. 26
SHEET 26 OF 262

mhoerner
2/25/2020 - 1:36:32 PM - c:\transystems\ow_local\transyscorp-pw1\enlovement\d0519510\rd0510.dgn

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



TOP VIEW

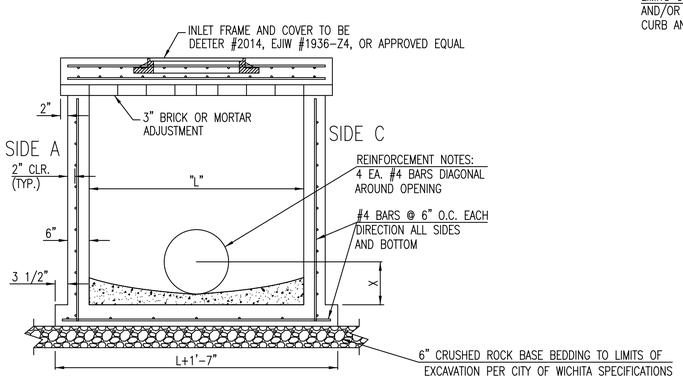
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

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"

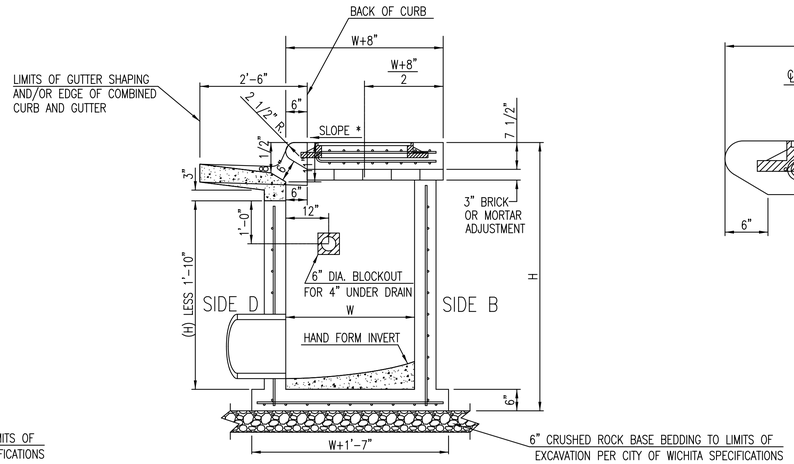
** FOR PIPES PERPENDICULAR TO INLET WALL

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.

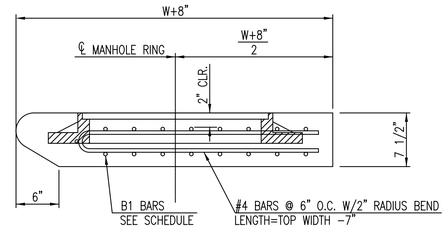


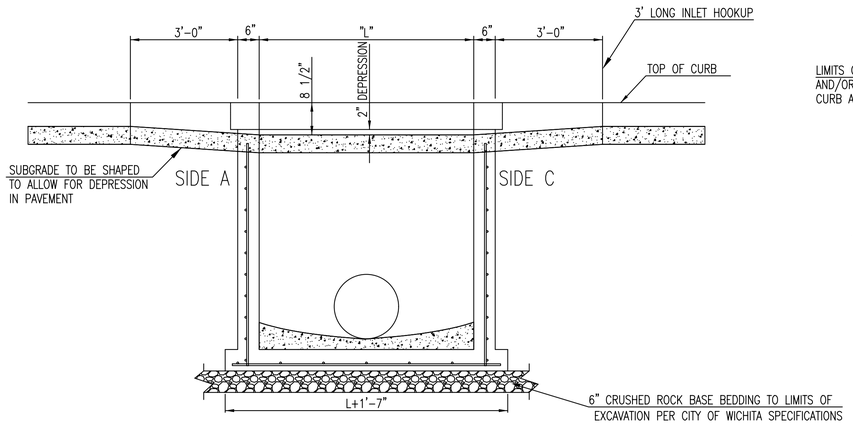
SECTION "A-A"



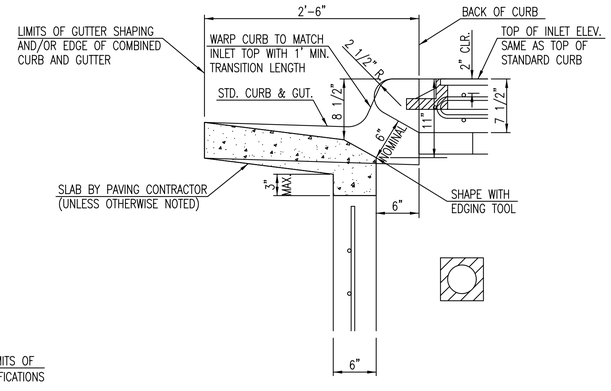
SECTION "C-C"

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

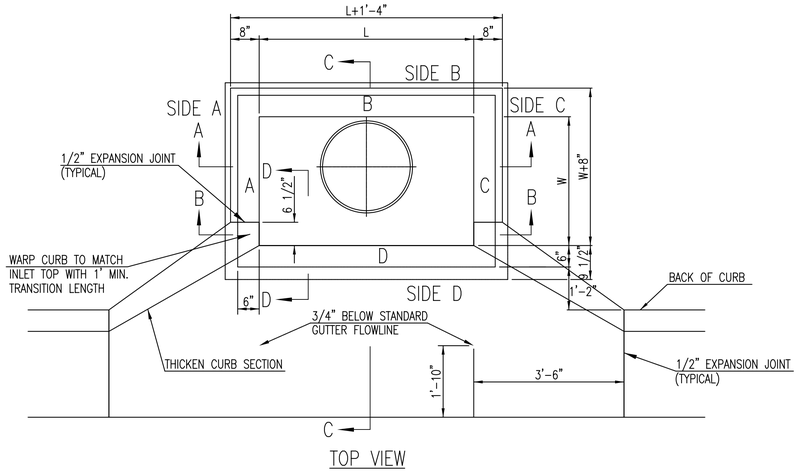
STANDARD TYPE 1
CURB INLET
5'-0" OR 10'-0" OPENING

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
27 of 262



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"
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** 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.
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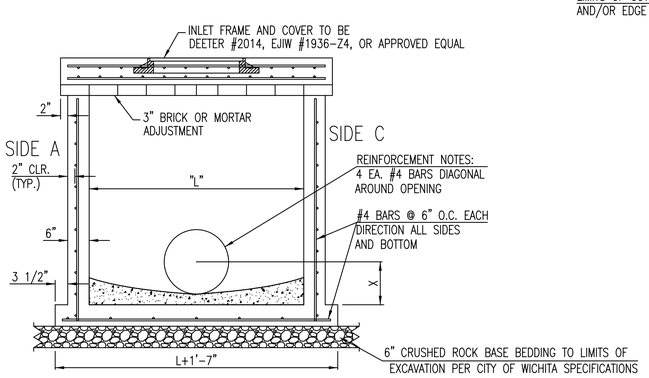
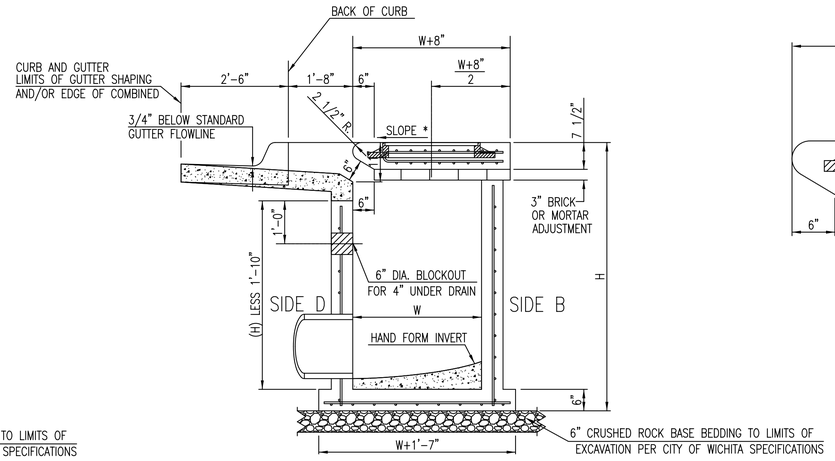
5. INLET FRAME AND COVER TO BE DEETER #2014, EJIW #1936-Z4, OR APPROVED EQUAL, SEE SW-303.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

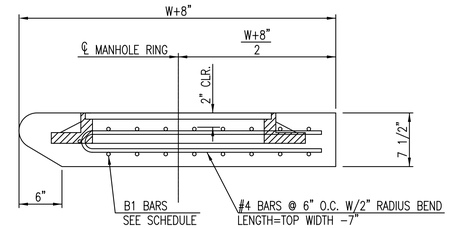


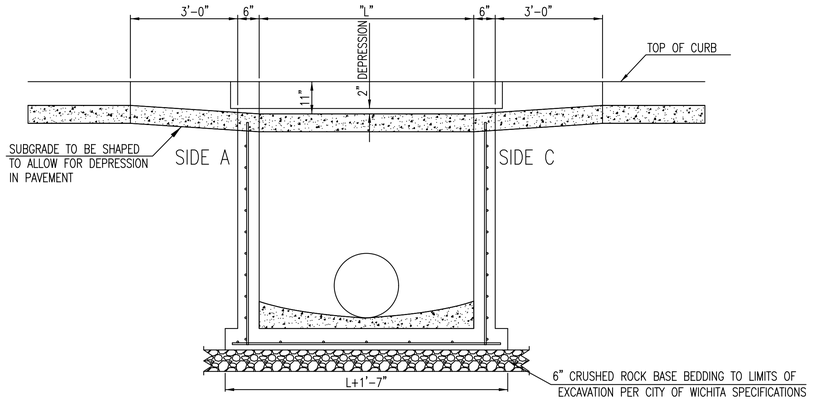
SECTION "A-A"



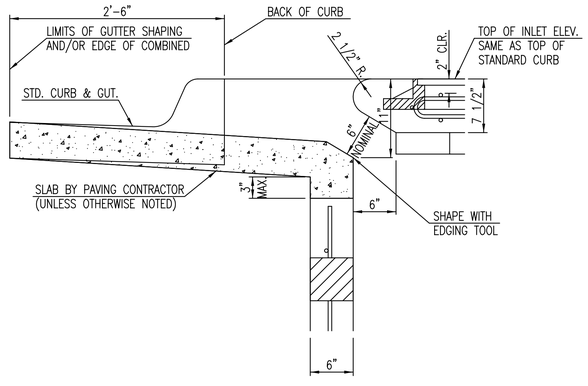
SECTION "C-C"

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





SECTION "B-B"



SECTION "D-D"

REVISION MAY 2017 | UPDATED SET BACK DIMENSION ON TOP VIEW

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

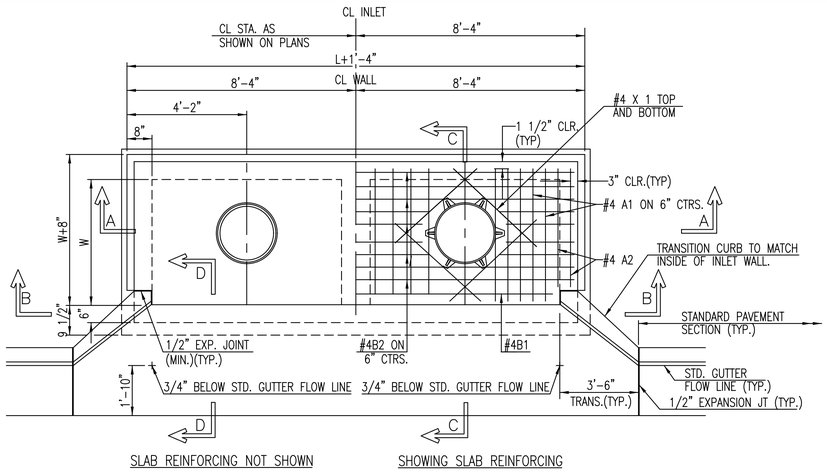
STANDARD TYPE 1A
CURB INLET
5'-0" OR 10'-0" OPENING

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

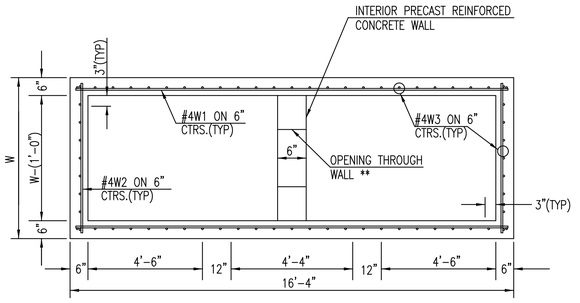
SHEET
28 of 262



SLAB REINFORCING NOT SHOWN

SHOWING SLAB REINFORCING

PLAN



SECTION B-B

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"
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*** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

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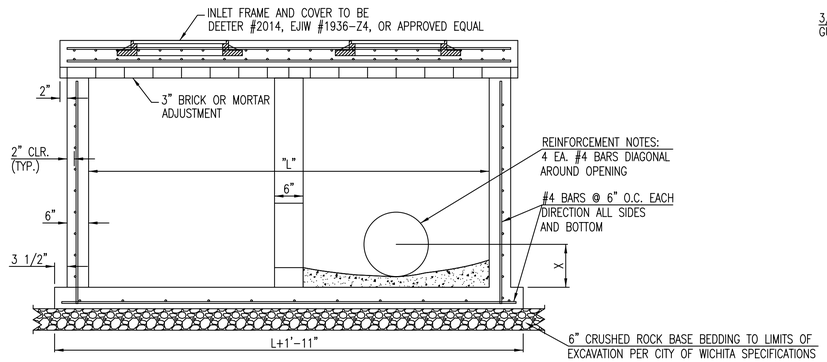
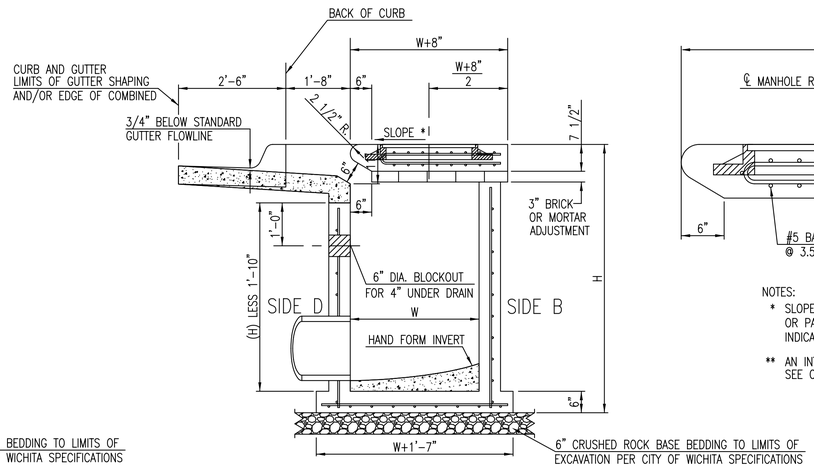
5. INLET FRAME AND COVER TO BE DEETER #2014, EJIW #1936-Z4, OR APPROVED EQUAL, SEE SW-303.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

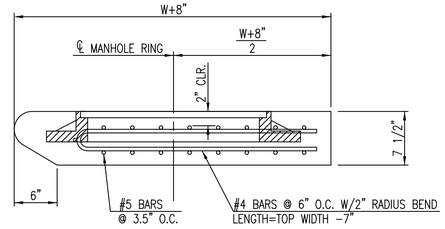


SECTION "A-A"



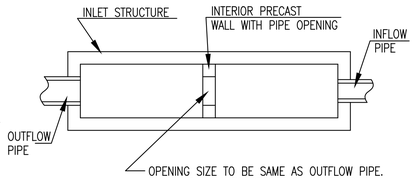
SECTION "C-C"

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

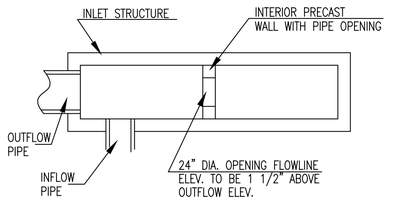


NOTES:
* SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.

** AN INTERIOR WALL OPENING SHALL BE PROVIDED. SEE CASE I AND CASE II.

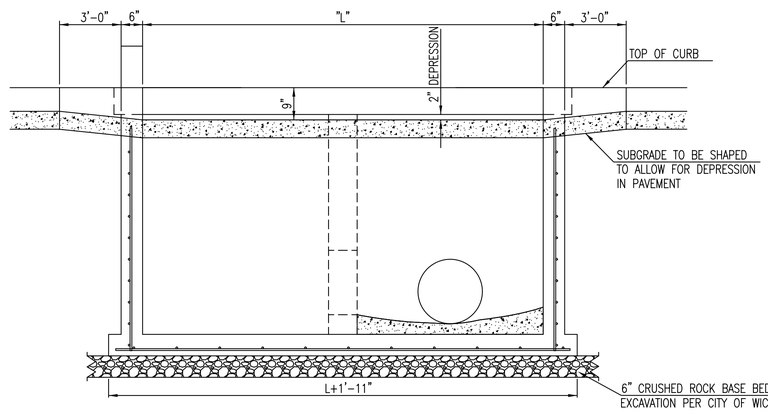


CASE I

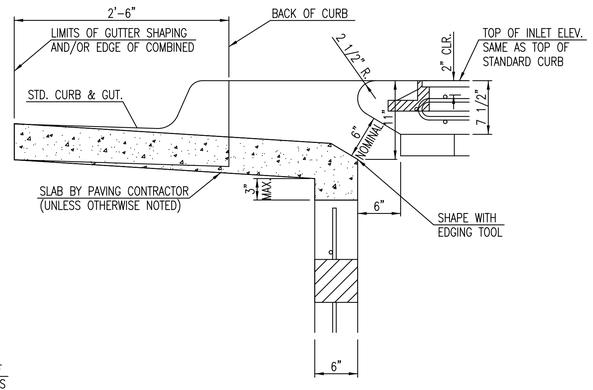


CASE II

NOTE: INTERIOR WALL OPENING SIZE SHALL BE AS SPECIFIED IN THE INLET CONSTRUCTION NOTE ON THE PLAN/ PROFILE SHEETS FOR THOSE CASES NOT SHOWN HERE.



SECTION "B-B"



SECTION "D-D"

REVISED: MARCH 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STANDARD TYPE 1A CURB INLET 15'-0" OPENING

CITY ENGINEER

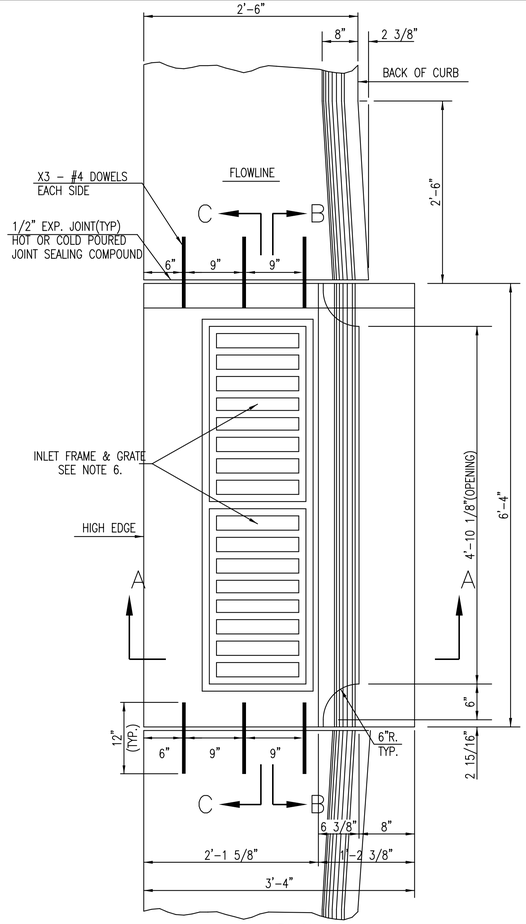
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

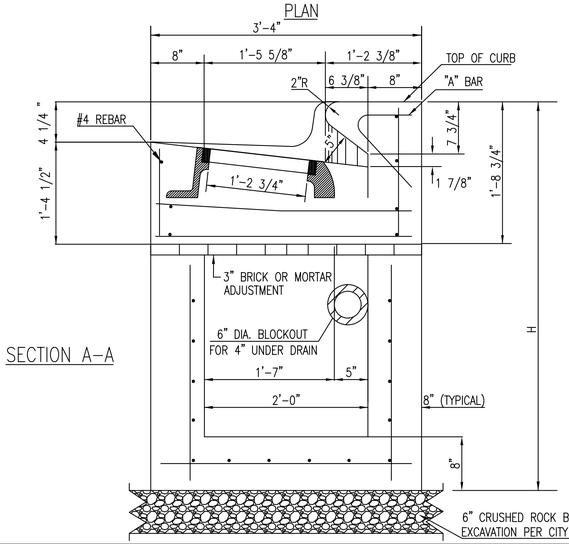
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

29 of 262

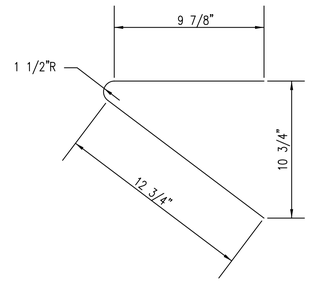


PLAN



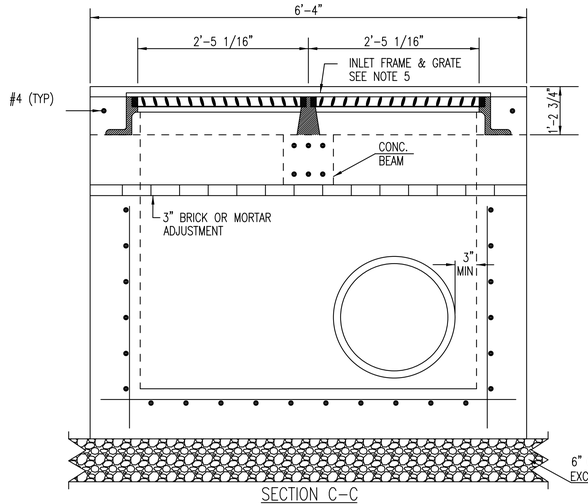
SECTION A-A

6" CRUSHED ROCK BASE BEDDING TO LIMITS OF EXCAVATION PER CITY OF WICHITA SPECIFICATIONS



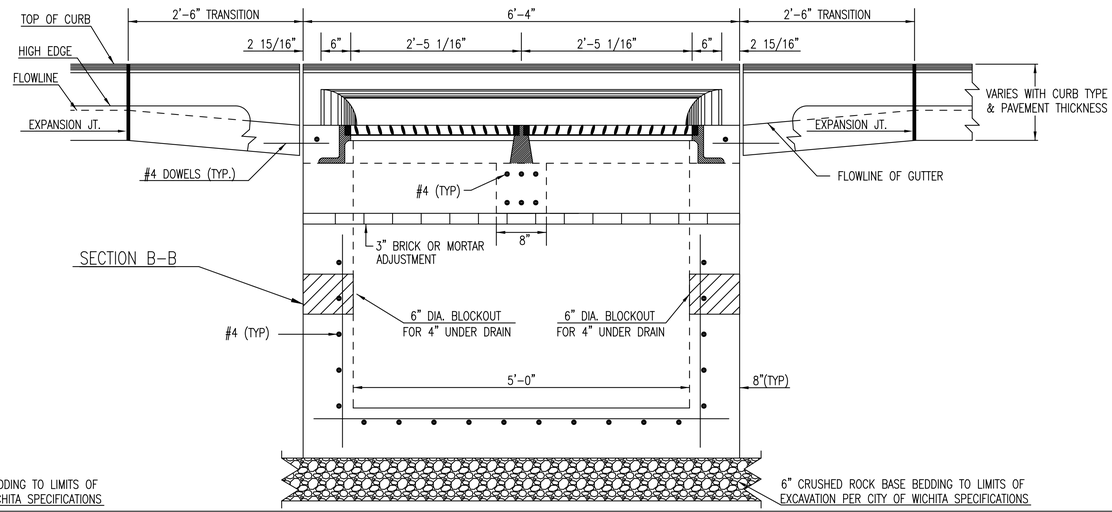
"A" BAR

BENDING DIAGRAM

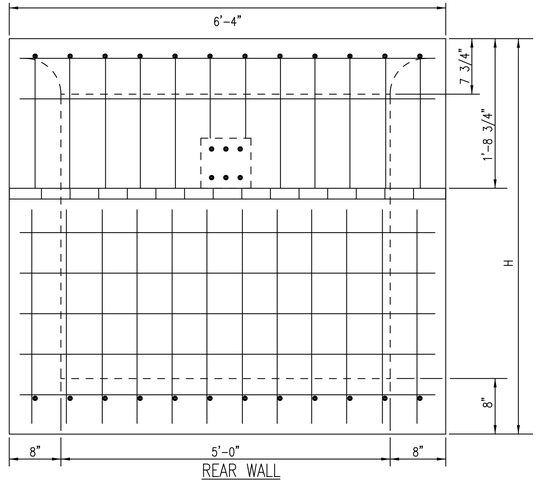


SECTION C-C

6" CRUSHED ROCK BASE BEDDING TO LIMITS OF EXCAVATION PER CITY OF WICHITA SPECIFICATIONS



6" CRUSHED ROCK BASE BEDDING TO LIMITS OF EXCAVATION PER CITY OF WICHITA SPECIFICATIONS



REAR WALL

GENERAL NOTES

1. USE THE CONCRETE MIX SPECIFIED FOR THE CITY OF WICHITA CONCRETE PAVEMENT THROUGHOUT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. REINFORCING BARS SHALL BE BENT AROUND PIPE.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK 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.
3. ALL BARS ARE #4 WITH 6" SPACING AND SHALL HAVE A MINIMUM CLEARANCE OF 1 1/2 INCHES UNLESS OTHERWISE NOTED ON THE PLANS.
4. NO DEDUCTIONS WILL BE MADE IN PAY LENGTH OF CURB, GUTTER, OR CURB AND GUTTER THROUGH THE INLET AREA.
5. USE DEETER FOUNDRY, INC. CASTING NO. 2442/43 OR EJIW 7600Z LEFT SIDE, 7600 RIGHT SIDE IN INLET FRAME AND GRATE WITH STYLE H GRATE. INLET FRAME TO BE PROOF LOAD TESTED TO 40,000 LBS. ON UNSUPPORTED SIDE.
6. REINFORCING BARS SHALL BE CUT OR BENT AROUND PIPES. NO DEDUCTION IN CONCRETE QUANTITIES SHALL BE MADE FOR PIPE OPENINGS.
7. THE VANES OF THE GRATE SHALL BE ORIENTED WITH RESPECT TO THE FLOW ARROWS SHOWN ON THE PLANS.
8. 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.

REVISED: MARCH 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

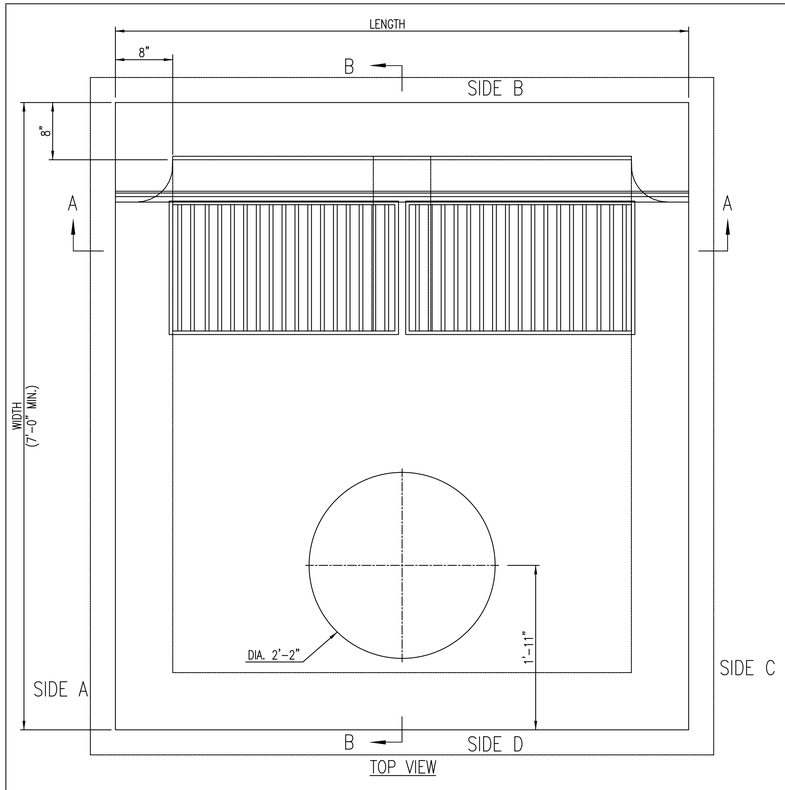
STANDARD DOUBLE TYPE II CURB INLET

CITY ENGINEER

GARY JANZEN, P.E.

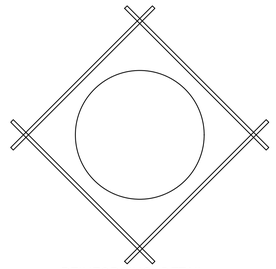
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

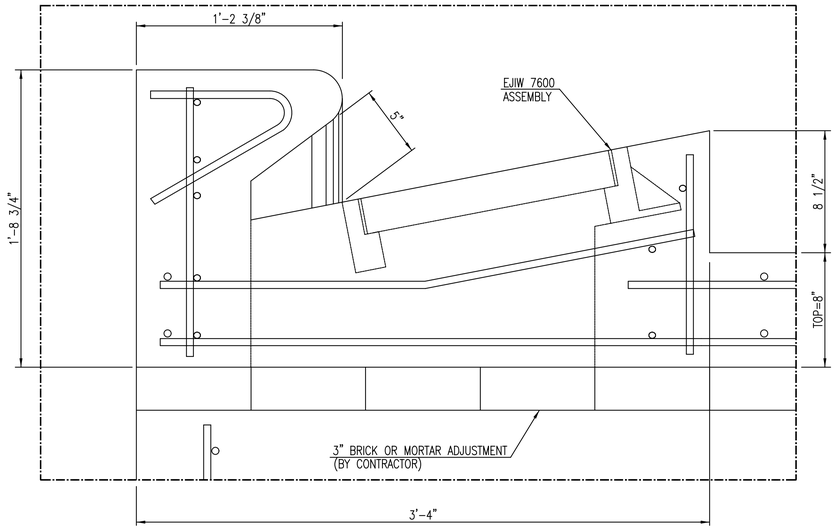


TOP VIEW

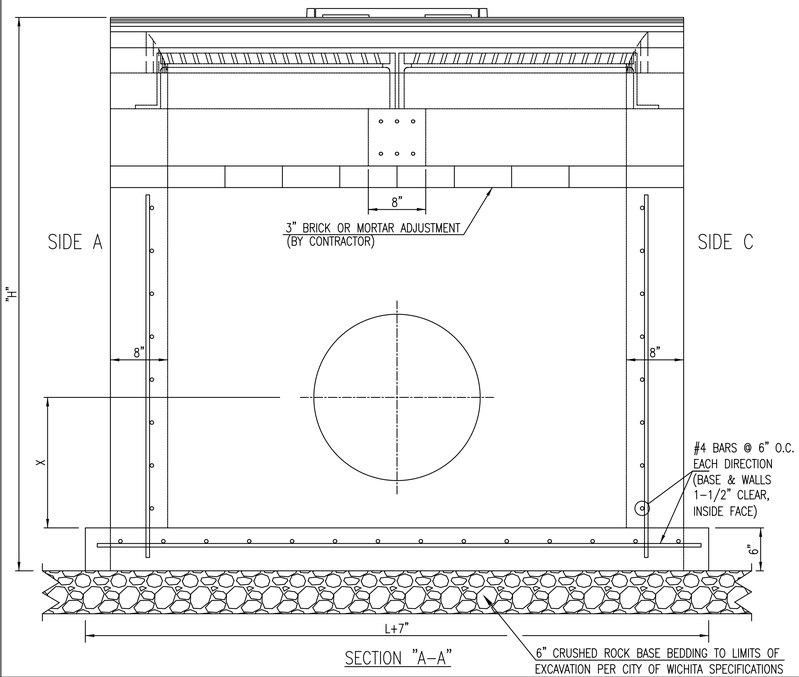
**ALL REINFORCING
TO BE #4 BARS @ 6" O.C.



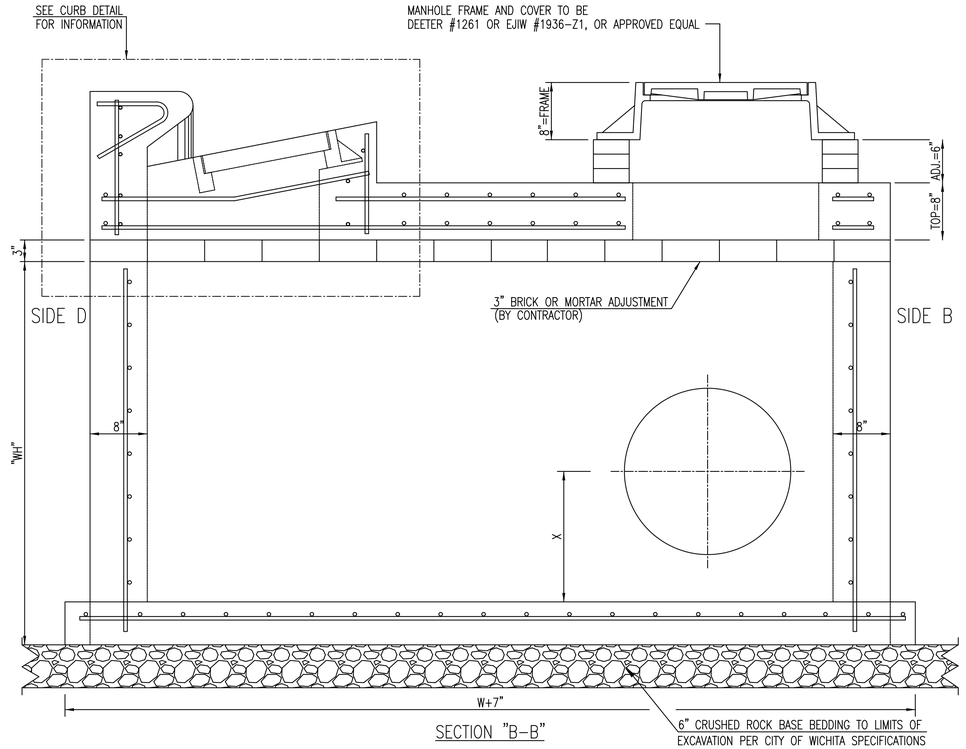
REINFORCING DETAIL
TYPICAL BLOCKOUT REINFORCING
(4) EA. #4 BARS



CURB DETAIL



SECTION "A-A"



SECTION "B-B"

GENERAL NOTES

1. USE THE CONCRETE MIX SPECIFIED FOR THE CITY OF WICHITA CONCRETE PAVEMENT THROUGHOUT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. REINFORCING BARS SHALL BE BENT AROUND PIPE.
2. INLET/MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK 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.
3. ALL BARS ARE #4 WITH 6" SPACING AND SHALL HAVE A MINIMUM CLEARANCE OF 1 1/2" INCHES UNLESS OTHERWISE NOTED ON THE PLANS.
4. NO DEDUCTIONS WILL BE MADE IN PAY LENGTH OF CURB, GUTTER, OR CURB AND GUTTER THROUGH THE INLET AREA.
5. USE DEETER FOUNDRY, INC. CASTING NO. 2442/43 OR EJIW 7600Z LEFT SIDE, 7600 RIGHT SIDE IN INLET FRAME AND GRATE WITH STYLE H GRATE. INLET FRAME TO BE PROOF LOAD TESTED TO 40,000 LBS. ON UNSUPPORTED SIDE.
6. RING AND COVER SHALL BE DEETER #1261 OR EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
7. REINFORCING BARS SHALL BE CUT OR BENT AROUND PIPES. NO DEDUCTION IN CONCRETE QUANTITIES SHALL BE MADE FOR PIPE OPENINGS.
8. THE VANES OF THE GRATE SHALL BE ORIENTED WITH RESPECT TO THE FLOW ARROWS SHOWN ON THE PLANS.
9. AROUND INLET/MANHOLE OPENING IN TOP SLAB USE #5 BAR @ 45° ANGLE TO OTHER BARS. LENGTH = MH OPENING + 2'-0"
10. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET/MANHOLE WALL SHALL BE GROUTED FLUSH TO THE INLET/MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE INLET/MANHOLE IS IN PLACE. LIFTING HOLES THRU THE INLET/MANHOLE WALL WILL NOT BE ACCEPTED.

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

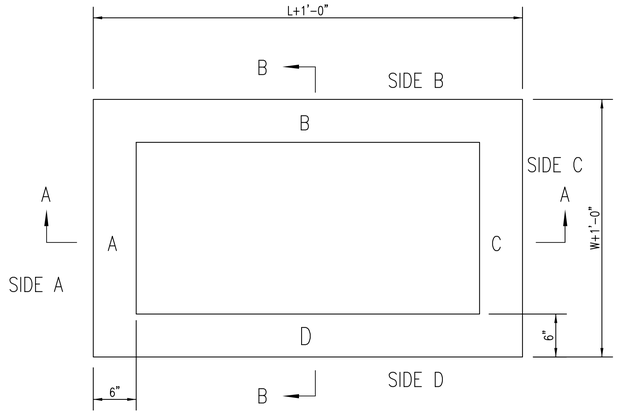
SPECIAL TYPE II INLET/MANHOLE

CITY ENGINEER
GARY JANZEN, P.E.

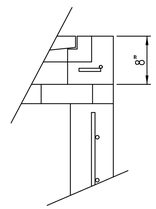
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

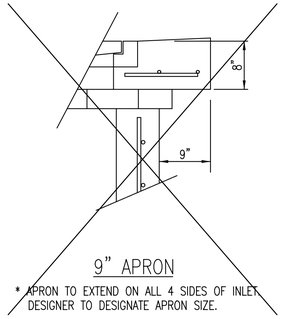
SHEET
31 of 262



TOP VIEW

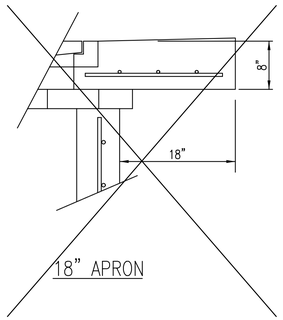


FLUSH STYLE TOP
NO APRON



9" APRON

* APRON TO EXTEND ON ALL 4 SIDES OF INLET. DESIGNER TO DESIGNATE APRON SIZE.



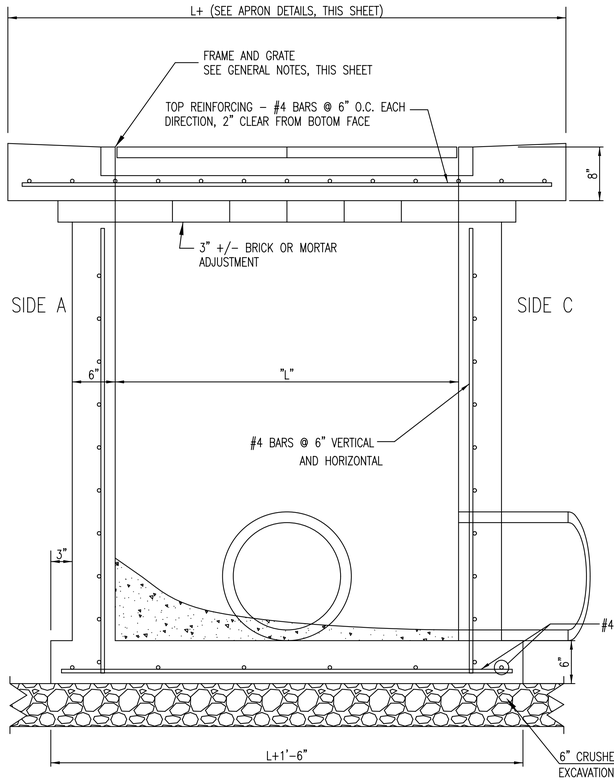
18" APRON

W=2' and L=2' for SINGLE DROP INLET
W=2' and L=4' for DOUBLE DROP INLET

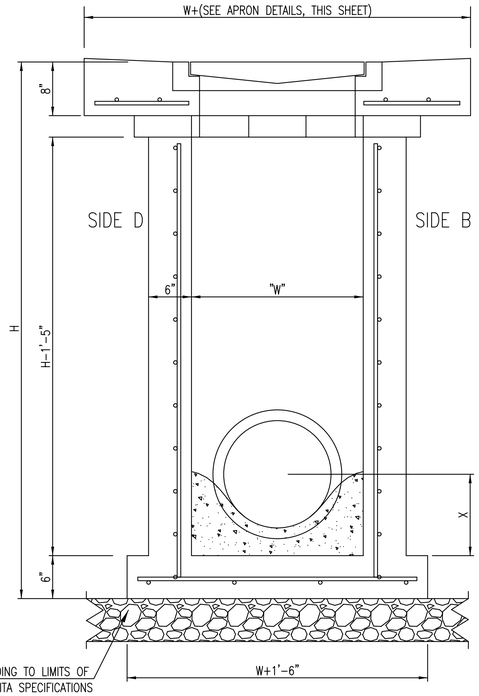
The structure(s) on this detail sheet are designed for HS-20 loading at these specific dimensions only. If larger dimensions are required, the ENGINEER shall provide a project specific structure design for approval by the City Engineer's office.

GENERAL NOTES

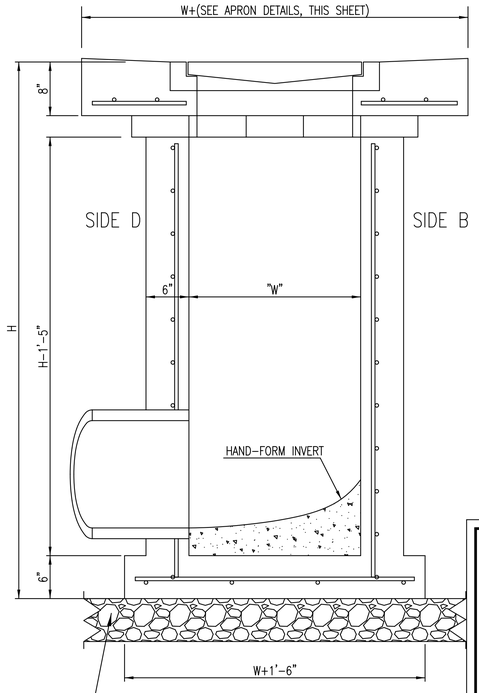
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
4. INLET FRAME AND GRATE TO BE DEETER #2433, EJIW #5391-Z1 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 Z3 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
5. 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 "B-B"
END OUTLET



6" CRUSHED ROCK BASE BEDDING TO LIMITS OF EXCAVATION PER CITY OF WICHITA SPECIFICATIONS

SECTION "B-B"
SIDE OUTLET

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

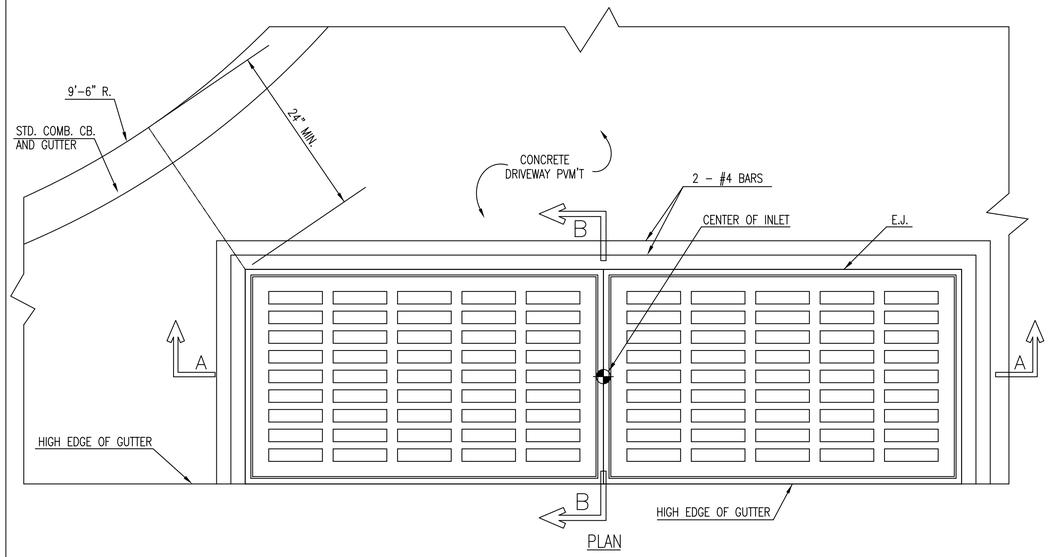
SINGLE/DOUBLE
DROP INLET

CITY ENGINEER
GARY JANZEN, P.E.

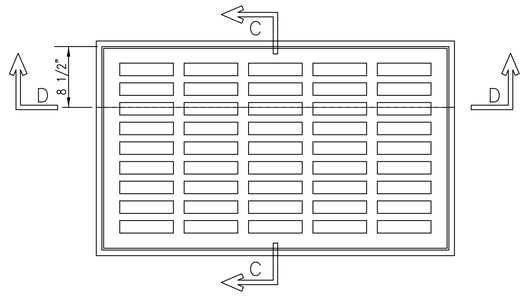
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
32 of 262



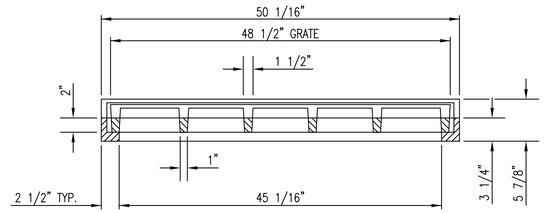
PLAN



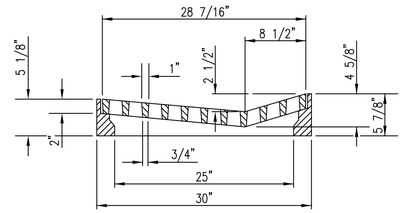
PLAN
DEETER #2095 FRAME & GRATE
TOTAL WEIGHT: 705 LBS.
(2 EACH REQUIRED)
OR EJIW #7392

GENERAL NOTES

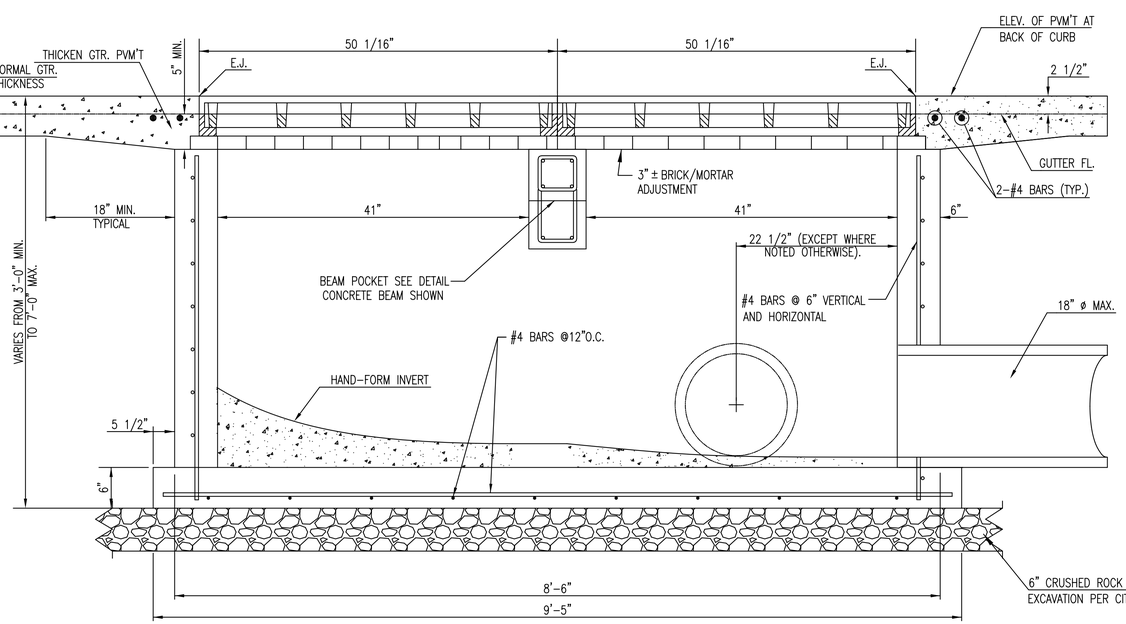
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALL BETWEEN THE CONCRETE INLET 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.



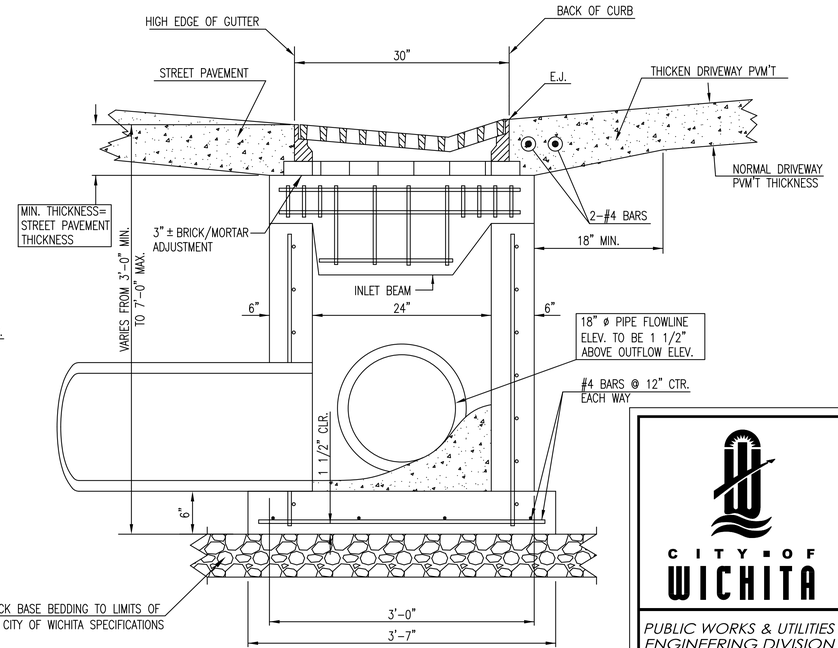
SECTION D-D



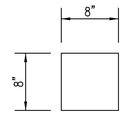
SECTION C-C



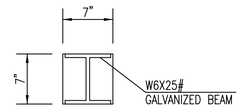
SECTION A-A



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
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
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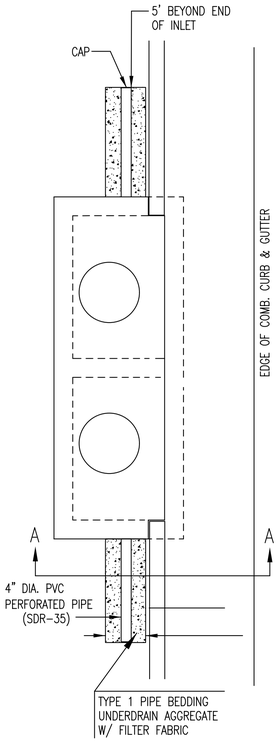
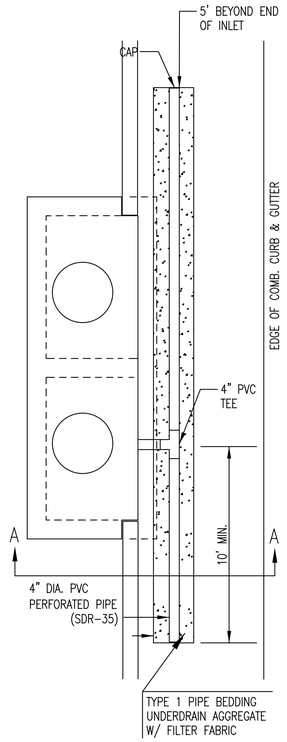
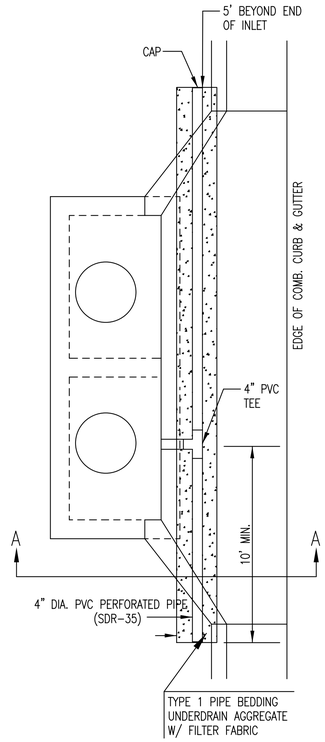
PAVEMENT UNDERDRAIN SHALL BE INSTALLED ON ALL CURB INLETS.



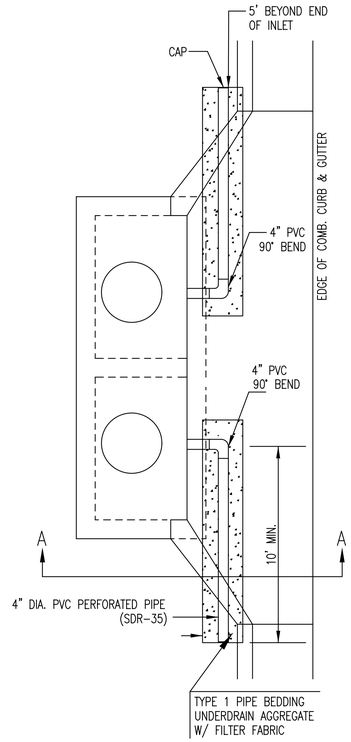
TYPE 1
OPTION 1



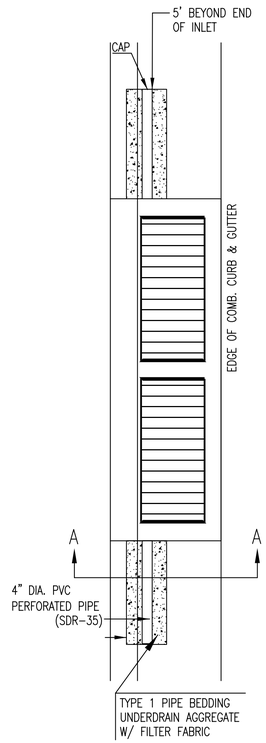
TYPE 1
OPTION 2



TYPE 1-A INLET
OPTION 1



TYPE 1-A INLET
OPTION 2



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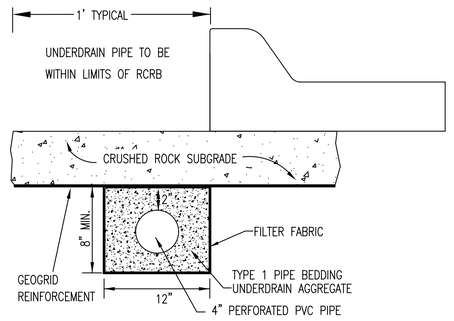


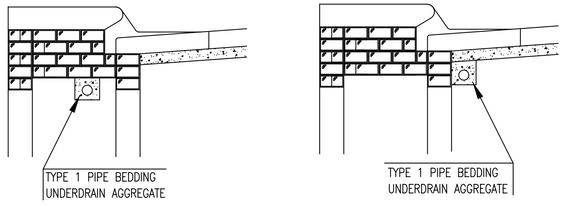
SECTION A-A (TYPICAL)

GENERAL NOTES

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

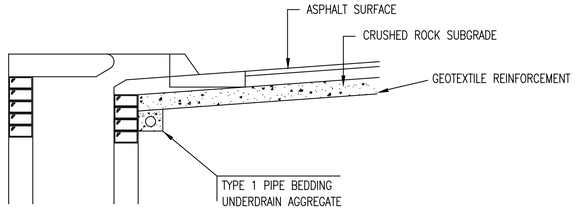
2. WHEN SWS CONSTRUCTED BY SEPARATE PROJECT, SWS CONTRACTOR SHALL INSTALL SDR 35, 4" DRAIN PIPE STUB ONLY THROUGH WALLS OF CURB INLETS AND CAP TO ALLOW FUTURE CONNECTION OF TEE AND ADDITIONAL DRAIN PIPE BY OTHERS.

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



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

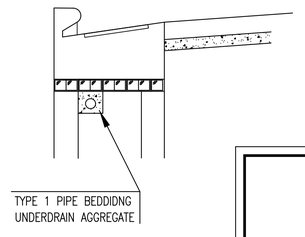
SECTION A-A



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

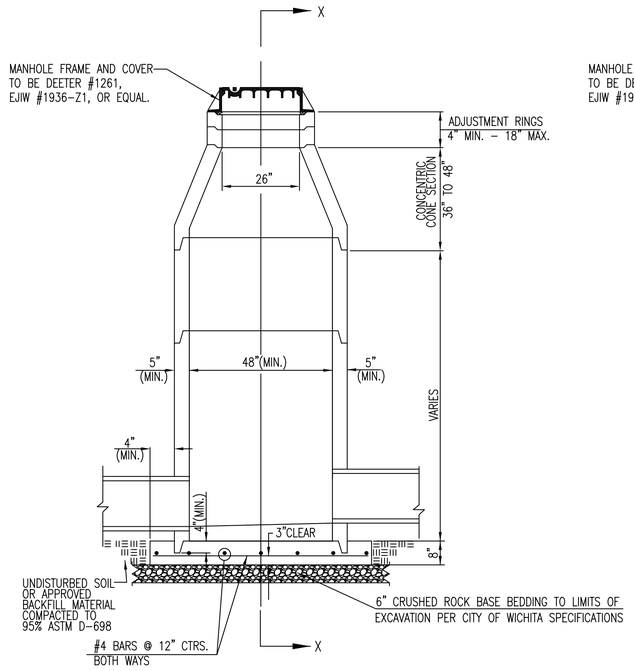
CURB INLET
PAVEMENT UNDERDRAIN
DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

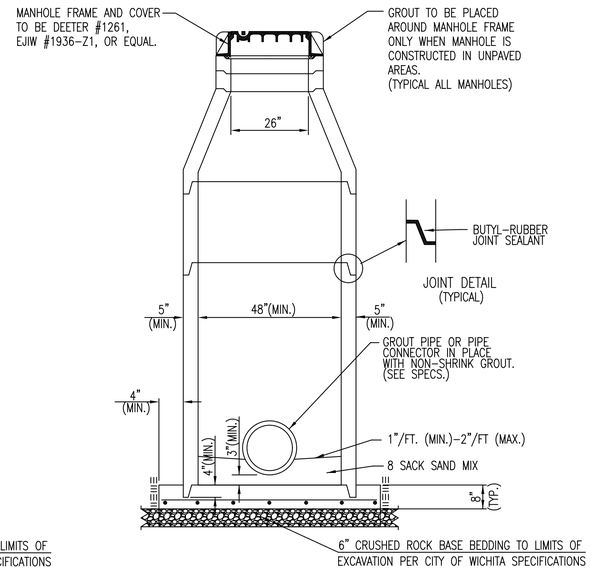
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

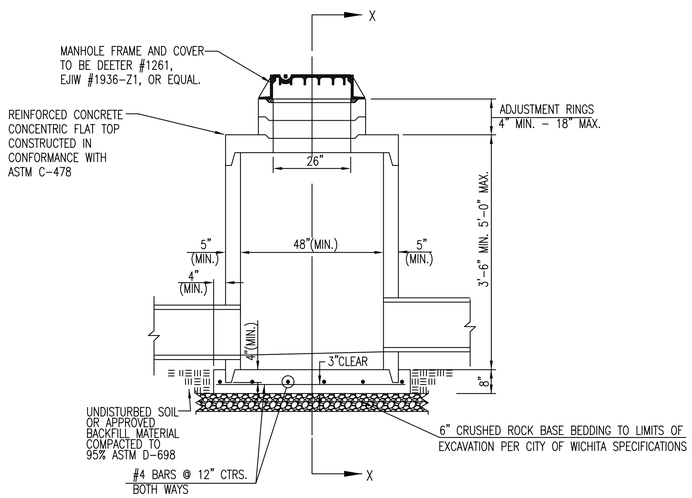
SHEET
34 of 262



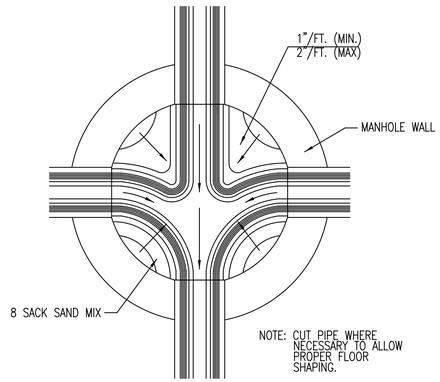
PRECAST
STANDARD MANHOLE
TYPE "A"



SECTION X-X
(TYPICAL)



PRECAST
SHALLOW MANHOLE
TYPE "B"



TYPICAL MANHOLE
FLOOR SHAPING

GENERAL NOTES

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

REVISED: MARCH 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

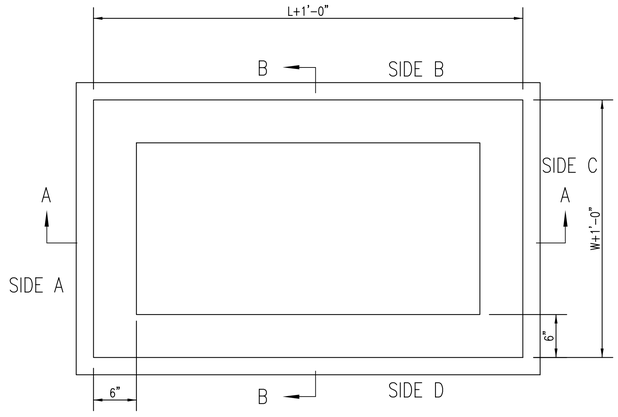
PRECAST CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
35 of 262



TOP VIEW

GENERAL NOTES

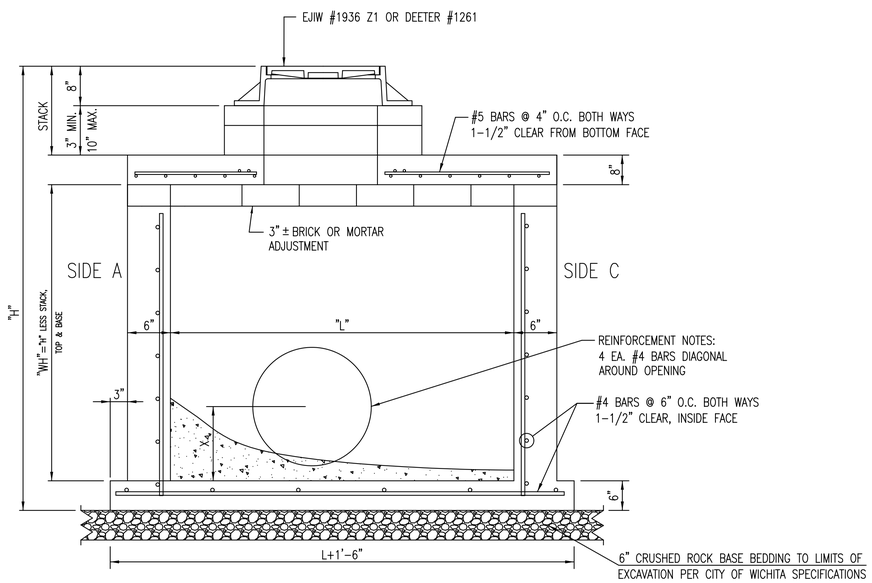
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.

2. 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.

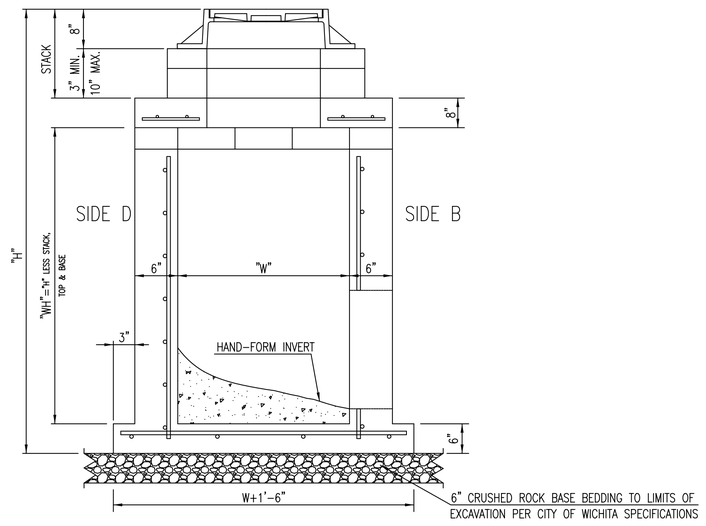
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

4. INLET FRAME AND GRATE TO BE DEETER #1261, EJIW #1936-Z1 OR APPROVED EQUAL, SEE SW-303.

5. 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.



SECTION "A-A"



SECTION "B-B"

REVISED: MARCH 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

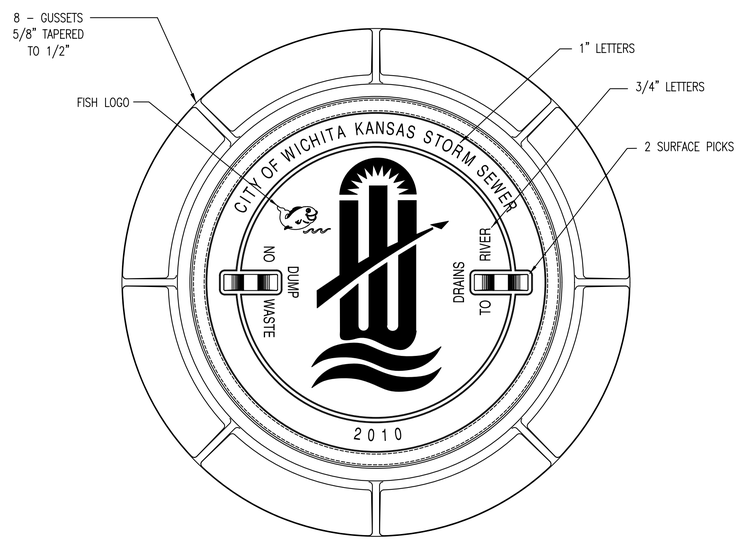
REINFORCED CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

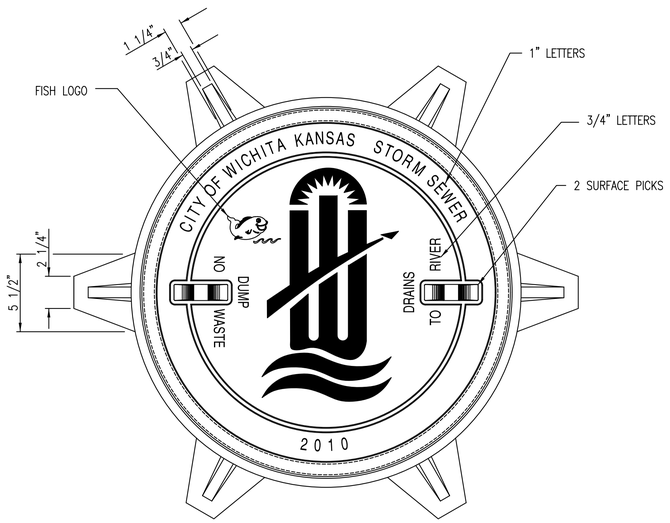
SHEET



MANHOLE FRAME

DEETER #1261 OR EJIW #1936-Z1

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



INLET FRAME

DEETER #2014 OR EJIW #1936-Z4

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

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

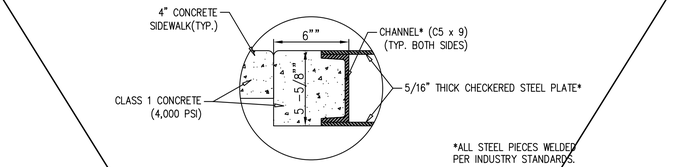
MANHOLE/INLET FRAME AND COVER (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

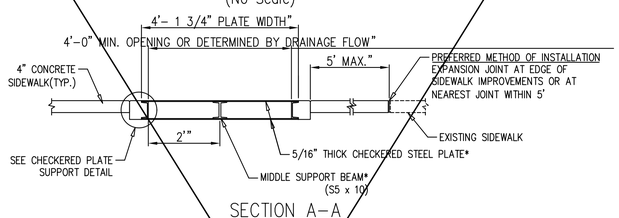
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

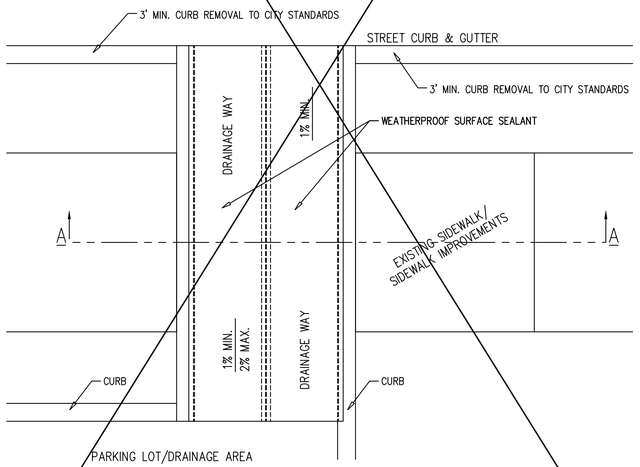


*ALL STEEL PIECES WELDED PER INDUSTRY STANDARDS.

CHECKERED PLATE SUPPORT DETAIL
(No Scale)

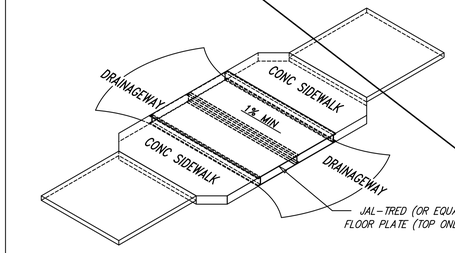


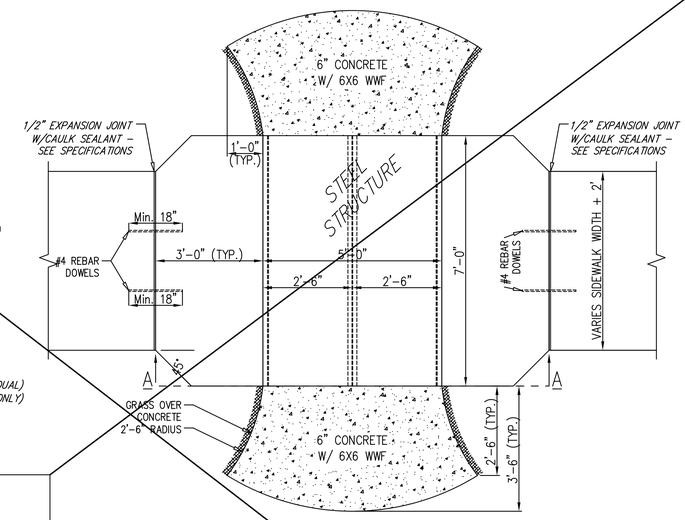
SECTION A–A
(No Scale)



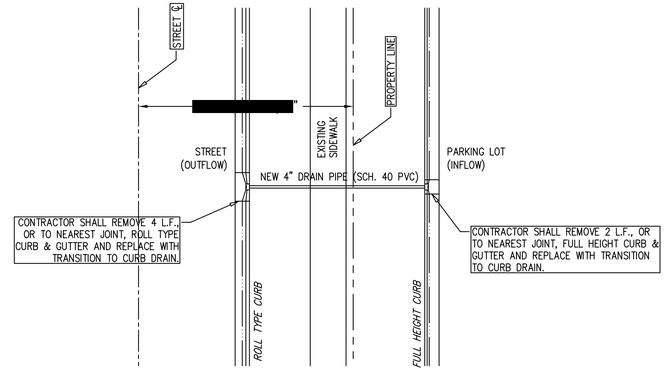
PLAN VIEW *
(No Scale)

CHECKERED PLATE
(PREFERRED OPTION)

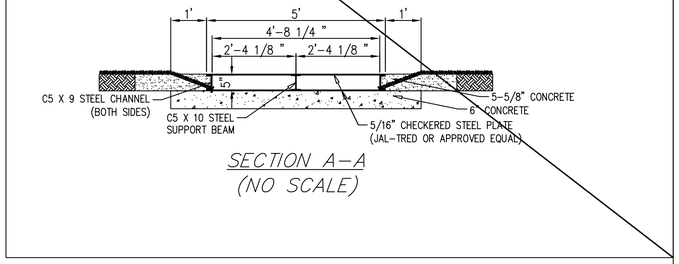




PLAN *
(No Scale)

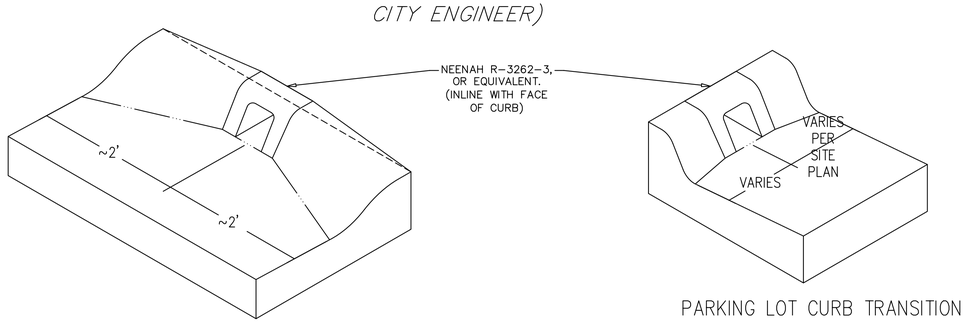


(ALTERNATIVE INSTALLATION WITH PRIOR APPROVAL FROM CITY ENGINEER)



SECTION A–A
(NO SCALE)

*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.



STREET CURB TRANSITION

PARKING LOT CURB TRANSITION

NEENAH CURB DRAIN
(USE ONLY WITH PRIOR APPROVAL FROM CITY ENGINEER.)

REVISED MARCH 2017

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

COVERED CONCRETE FLUME THROUGH SIDEWALK & NEENAH CURB DRAIN

CITY ENGINEER
GARY JANZEN, P.E

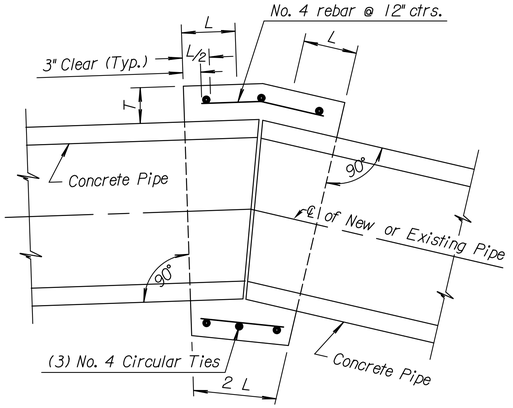
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

DESIGN	DRAWN

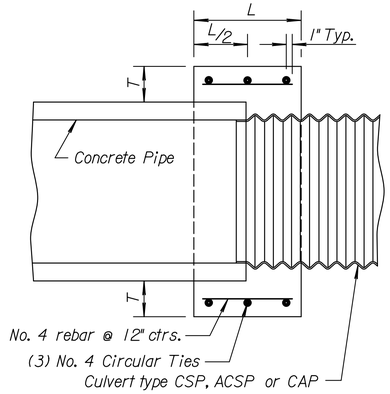
SHEET
38 of 262

CONCRETE PIPE COLLARS



PIPE COLLAR AT CHANGE IN ALIGNMENT

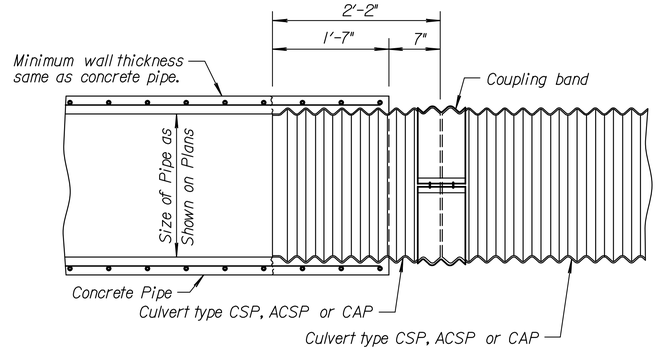
TYPE A COLLAR



PIPE COLLAR AT CHANGE IN PIPE MATERIAL

TYPE B COLLAR

CONCRETE PIPE COLLAR		
Pipe Dia.	L	T
15"	1'-0"	6"
18"	1'-0"	6"
24"	1'-0"	6"
36"	1'-6"	8"
48"	1'-6"	10"
60"	1'-9"	11"



(CONCRETE PIPE CONNECTED TO CORRUGATED METAL PIPE)

TYPE C COLLAR ⚠

⚠ *A section of concrete pipe (6'-0" min.) is cast 1'-7" short with the re-steel protruding. Tack weld the re-steel to the 2'-2" section of CMP and finish casting the remaining 1'-7" of RCP around the CMP. This is an approved connection provided it is fabricated as an integral part of a section of concrete pipe.*

General Notes:

Pipe collar shall be used to join pipes of different diameters or materials or where change in alignment or grade exceeds that allowed for ordinary joints.

All concrete shall be Concrete Grade 3.0.

All reinforcing steel shall be Grade 60 and shall have a minimum of 2" of cover.

The diameter of the circular ties shall be the outside diameter of the larger pipe plus "T".

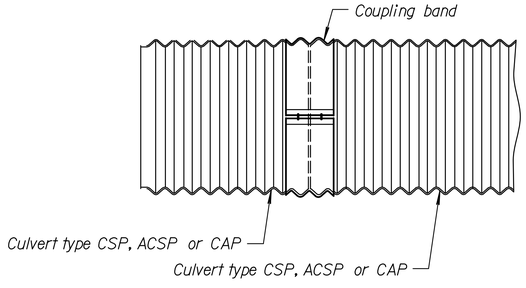
The maximum allowable distance between the ends of the pipes at any point is 2".

All labor, materials and incidentals required to construct the pipe collar Type A, B or C shall be considered SUBSIDIARY to the bid item, "Temporary SWS Connections".

Aluminum or aluminized pipes or end sections shall be coated with an asphaltic paint when in contact with fresh concrete in accordance with the Standard Specifications.

Pipe ends shall be trimmed such that the maximum distance between pipes at any point is 2".

CORREGATED PIPE COUPLING BAND



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: N.T.S.
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

COLLAR DETAILS

SHEET NO.

39

SHEET 39 OF 262

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

LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement joints shall be continued through curb & gutter and match joint patterns where possible.

All joints within the reinforced concrete pavement shall be tied with #4 bars 2' long spaced on 30" centers in all directions with 6" x 12' - W4 x W4 welded wire mesh.

The Contractor shall install #5 rebar @ 2'-0" centers at all tie in locations that abut existing concrete pavement unless otherwise noted or at the discretion of the Engineer. The rebar shall be doweled and grouted per City of Wichita standard specifications. All materials and labor required to do this work shall be considered SUBSIDIARY to other items on the contract.

SCALE
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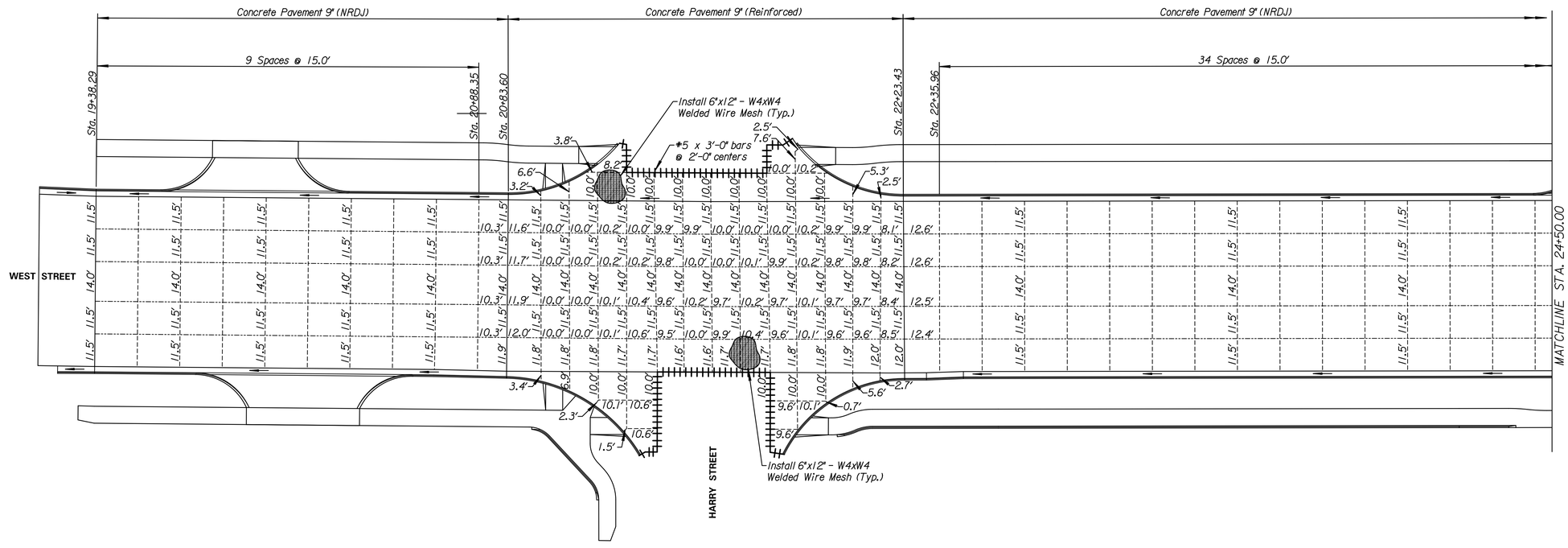
1"=20'



Trans Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET
JOINTING PLAN
STA. 19+38.28 TO
STA. 24+50.00

SHEET NO.
40
SHEET 40 OF 262

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

LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

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SCALE
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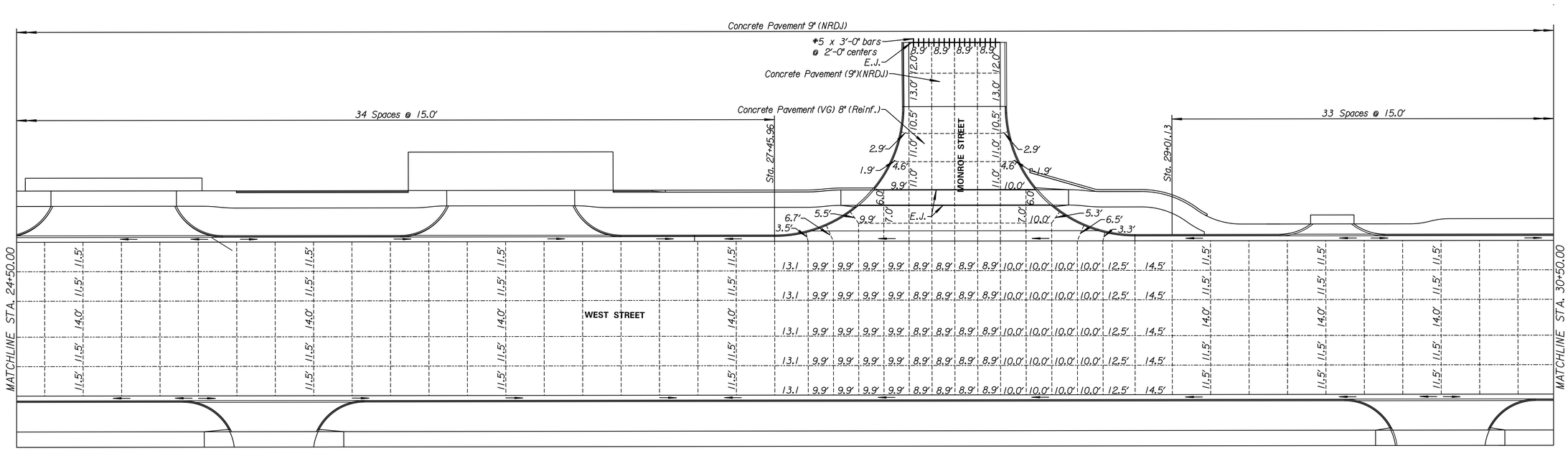

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 24+50.00 TO
STA. 30+50.00

SHEET NO.
41
SHEET 41 OF 262

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

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LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement Joints shall be continued through curb & gutter and match joint patterns where possible.

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SCALE
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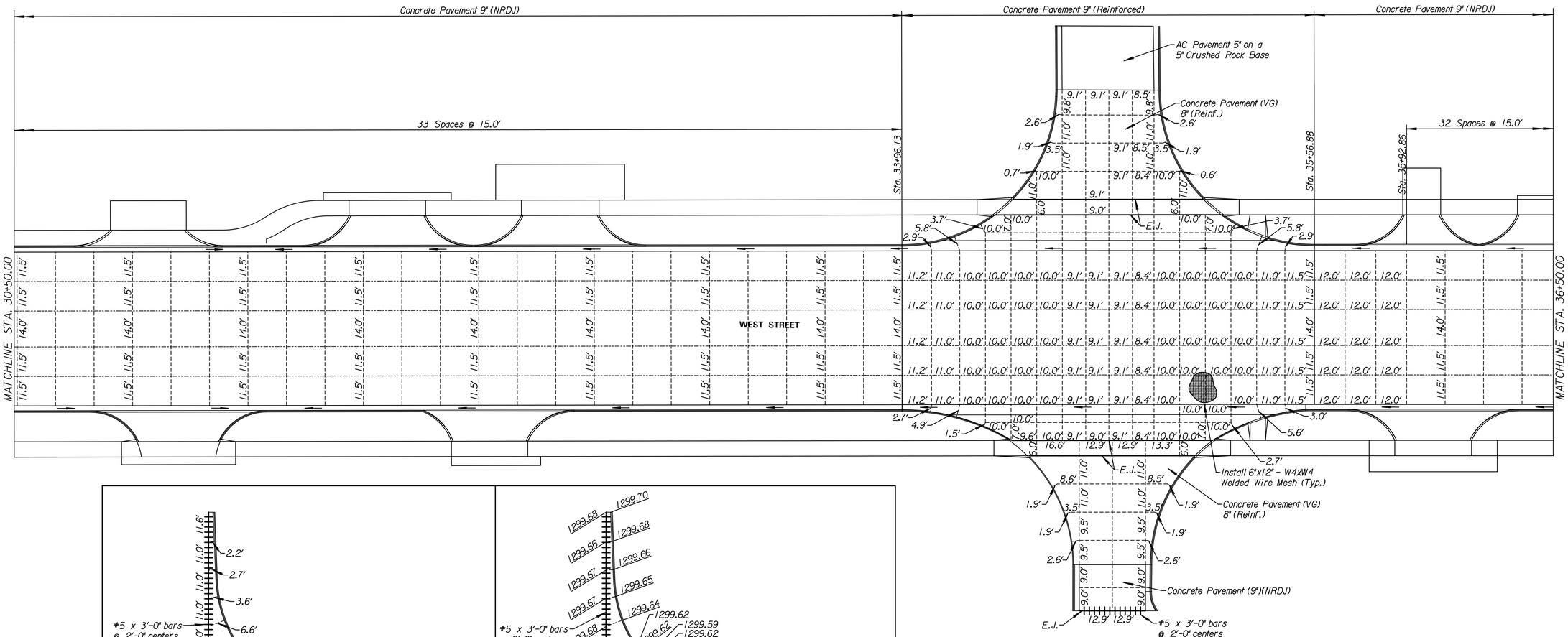

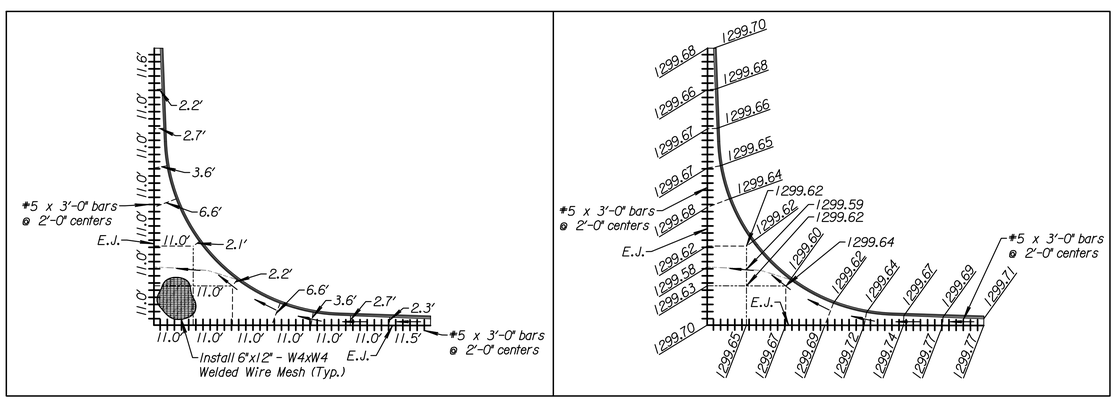

WALKER STREET & MCCOMAS LAYOUT DETAIL

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3300
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	MDB
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 30+50.00 TO
STA. 36+50.00

SHEET NO.
42
SHEET 42 OF 262

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2/25/2020

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

LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement joints shall be continued through curb & gutter and match joint patterns where possible.

SCALE
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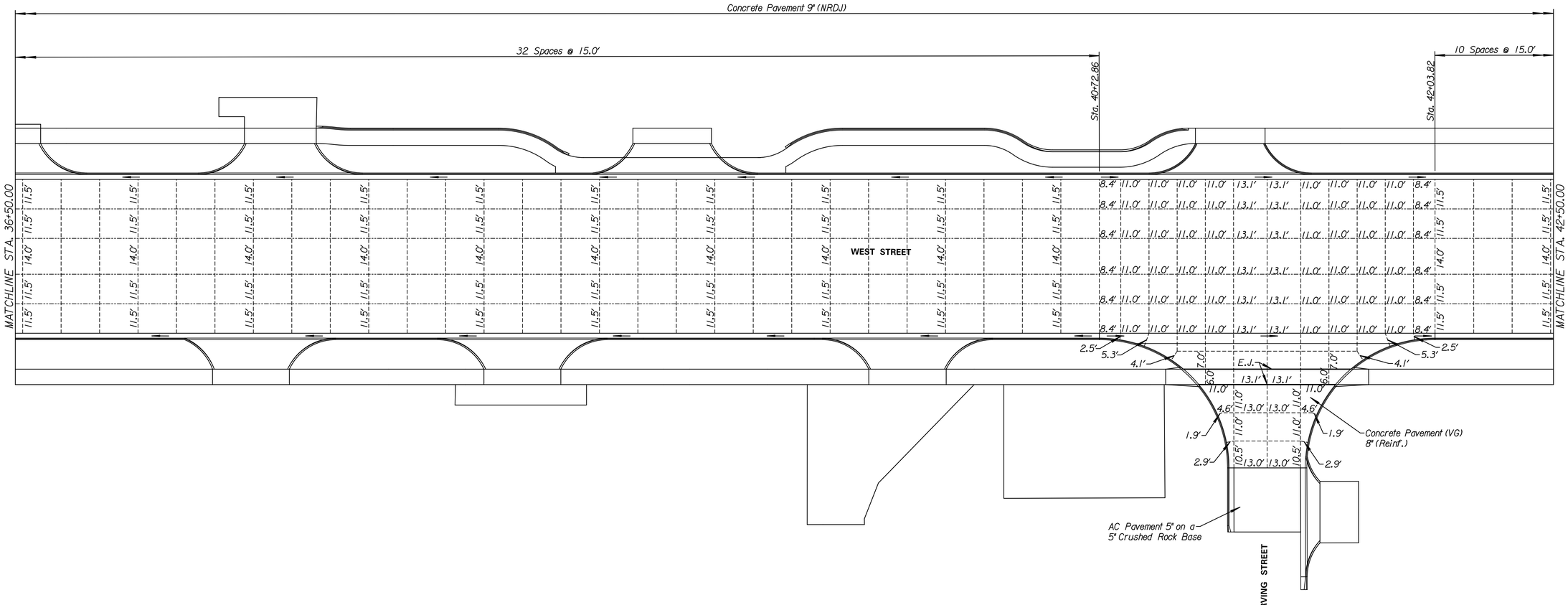
1"=20'



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 36+50.00 TO
STA. 42+50.00

SHEET NO.
43
SHEET 43 OF 262

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

LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)"
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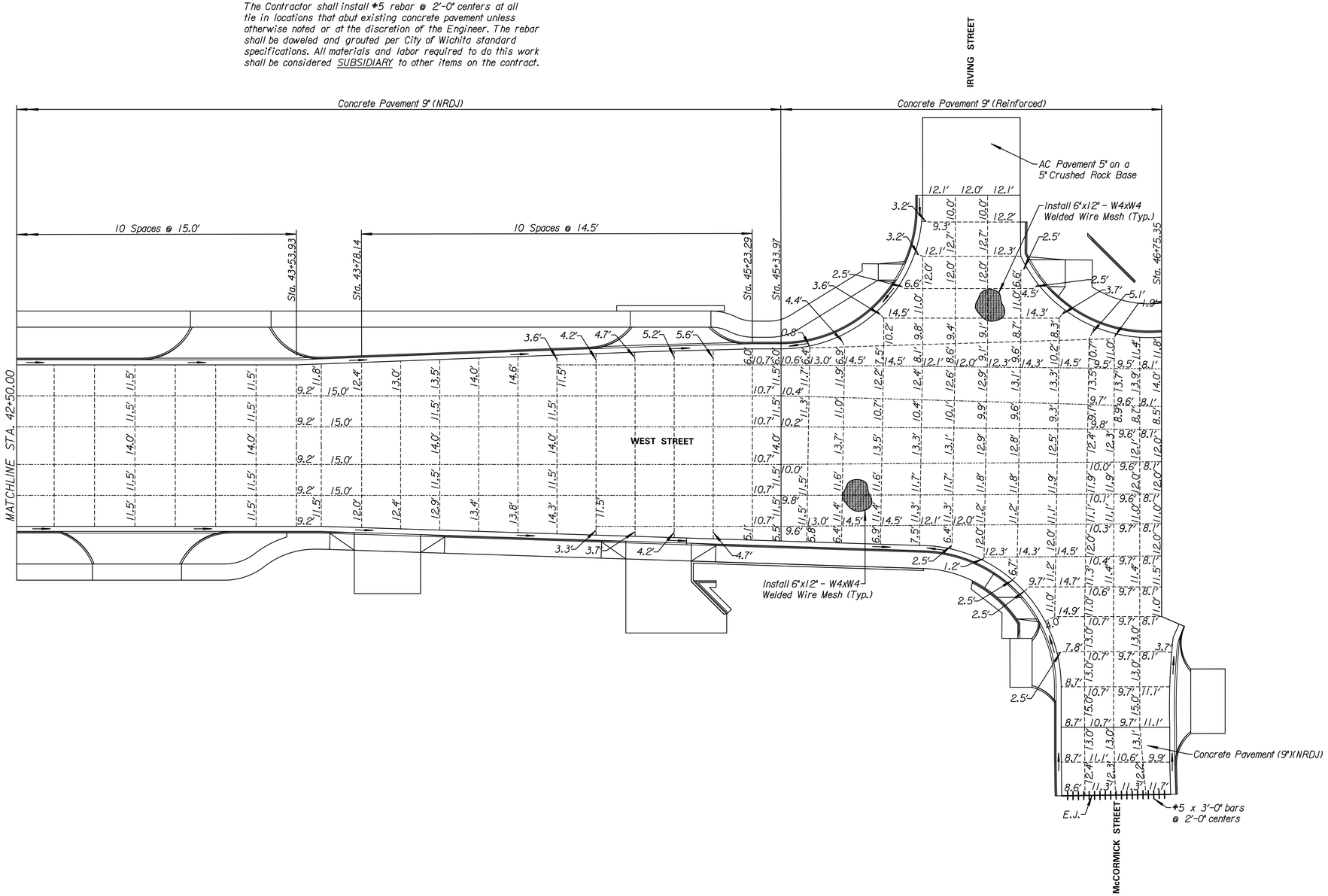
1"=20'



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	MDB
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 42+50.00 TO
STA. 46+75.35

SHEET NO.
44

SHEET 44 OF 262

rhoerner
2/25/2020 - 1:37:31 PM - c:\transystems\tow_local\transyscorp-pw1\nrlinenmen\d0519510\C-ANT-M01-105.dgn

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

LEGEND

- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

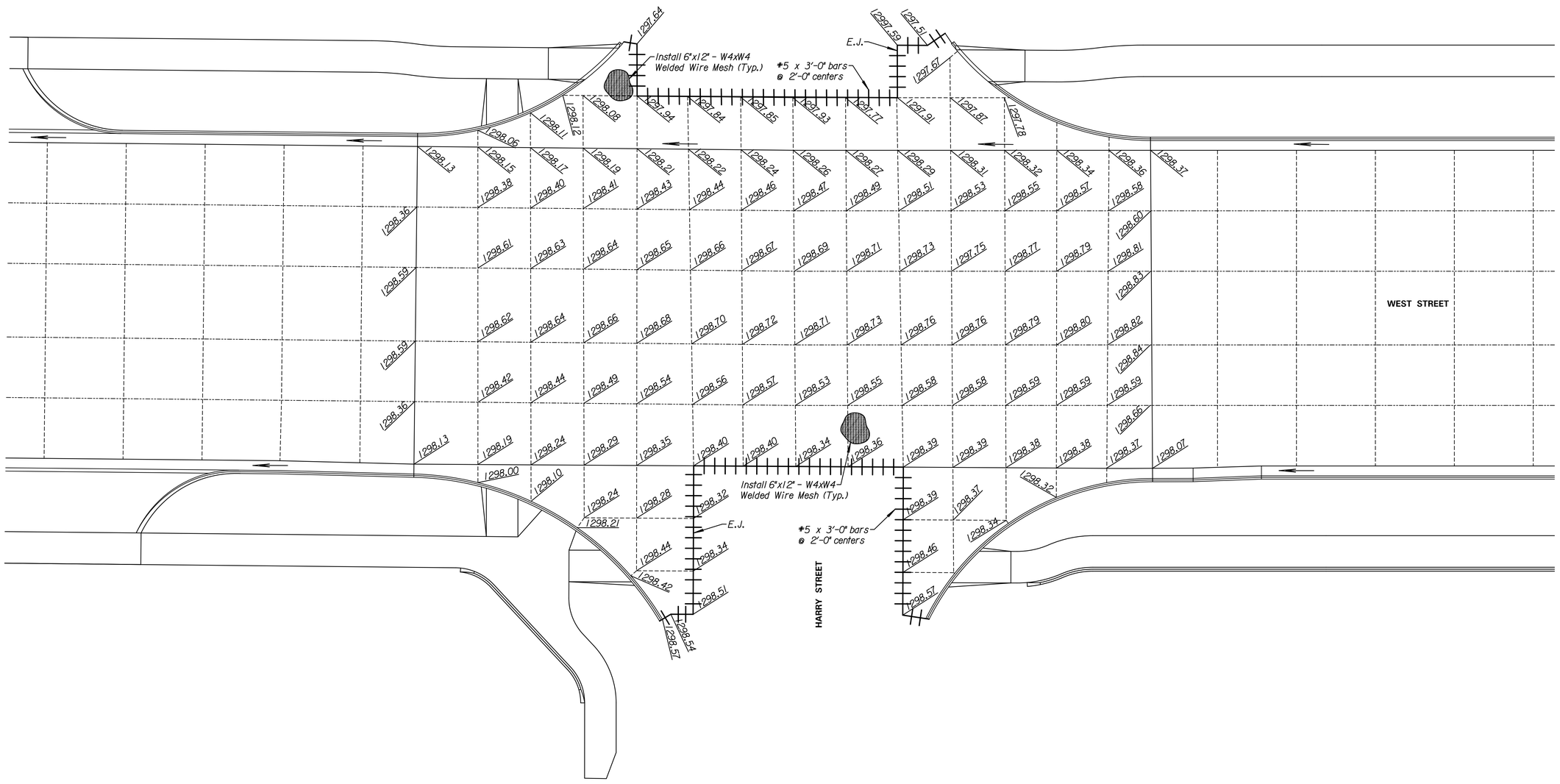
Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement joints shall be continued through curb & gutter and match joint patterns where possible.

All joints within the reinforced concrete pavement shall be tied with #4 bars 2' long spaced on 30" centers in all directions with 6" x 12" - W4 x W4 welded wire mesh.

The Contractor shall install #5 rebar @ 2'-0" centers at all tie in locations that abut existing concrete pavement unless otherwise noted or at the discretion of the Engineer. The rebar shall be doweled and grouted per City of Wichita standard specifications. All materials and labor required to do this work shall be considered SUBSIDIARY to other items on the contract.

SCALE
10' 0 10' 20'
1"=10'



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=10'
DATE: 2/25/2020
DESIGNED BY: MDB
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 20+06.00 TO
STA. 23+00.00

SHEET NO.
45
SHEET 45 OF 262

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

LEGEND

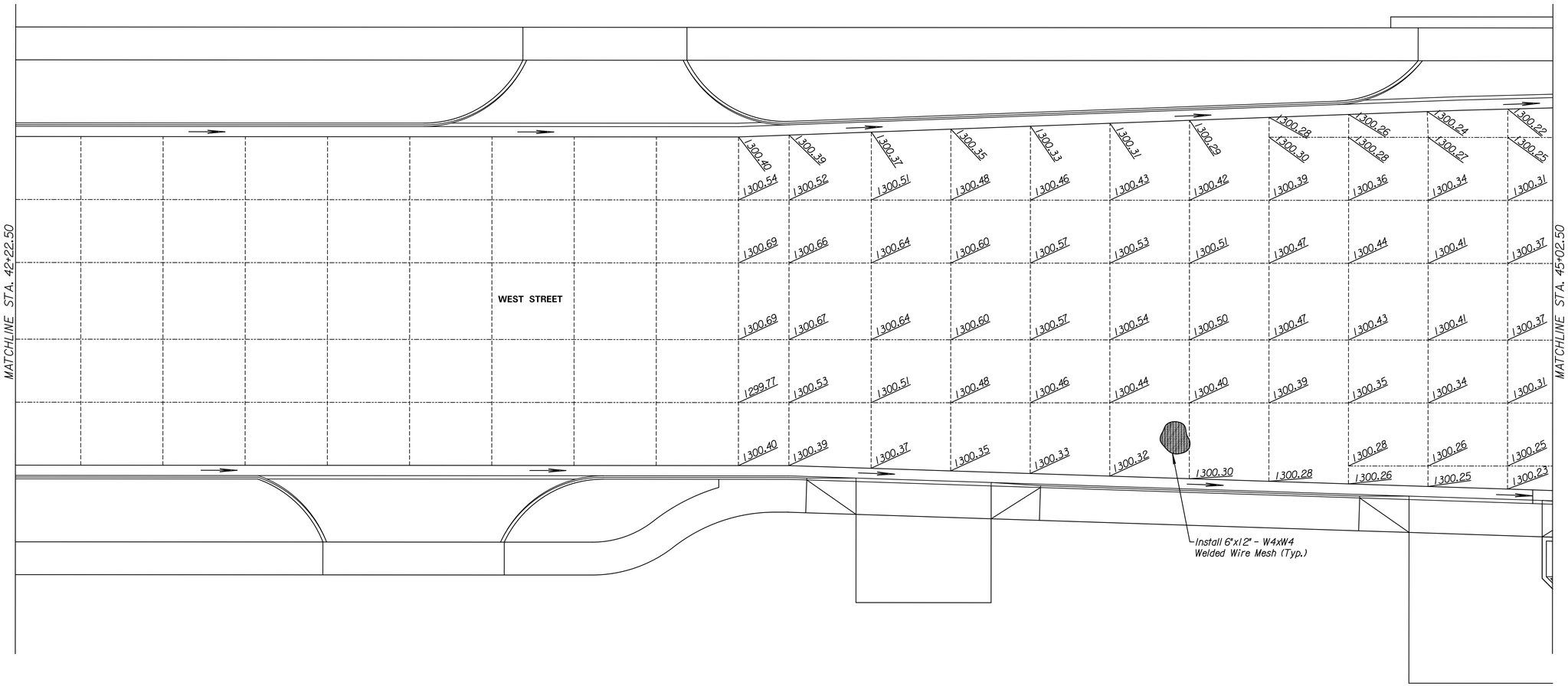
- Contraction Joint
- Longitudinal Joint
- Expansiton Joint

Notes:
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement joints shall be continued through curb & gutter and match joint patterns where possible.

All joints within the reinforced concrete pavement shall be tied with #4 bars 2' long spaced on 30" centers in all directions with 6" x 12' - W4 x W4 welded wire mesh.

SCALE
10' 0 10' 20'
1"=10'



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=10'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
JOINTING PLAN
STA. 42+22.00 TO
STA. 45+02.50.00

SHEET NO.
46
SHEET 46 OF 262

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

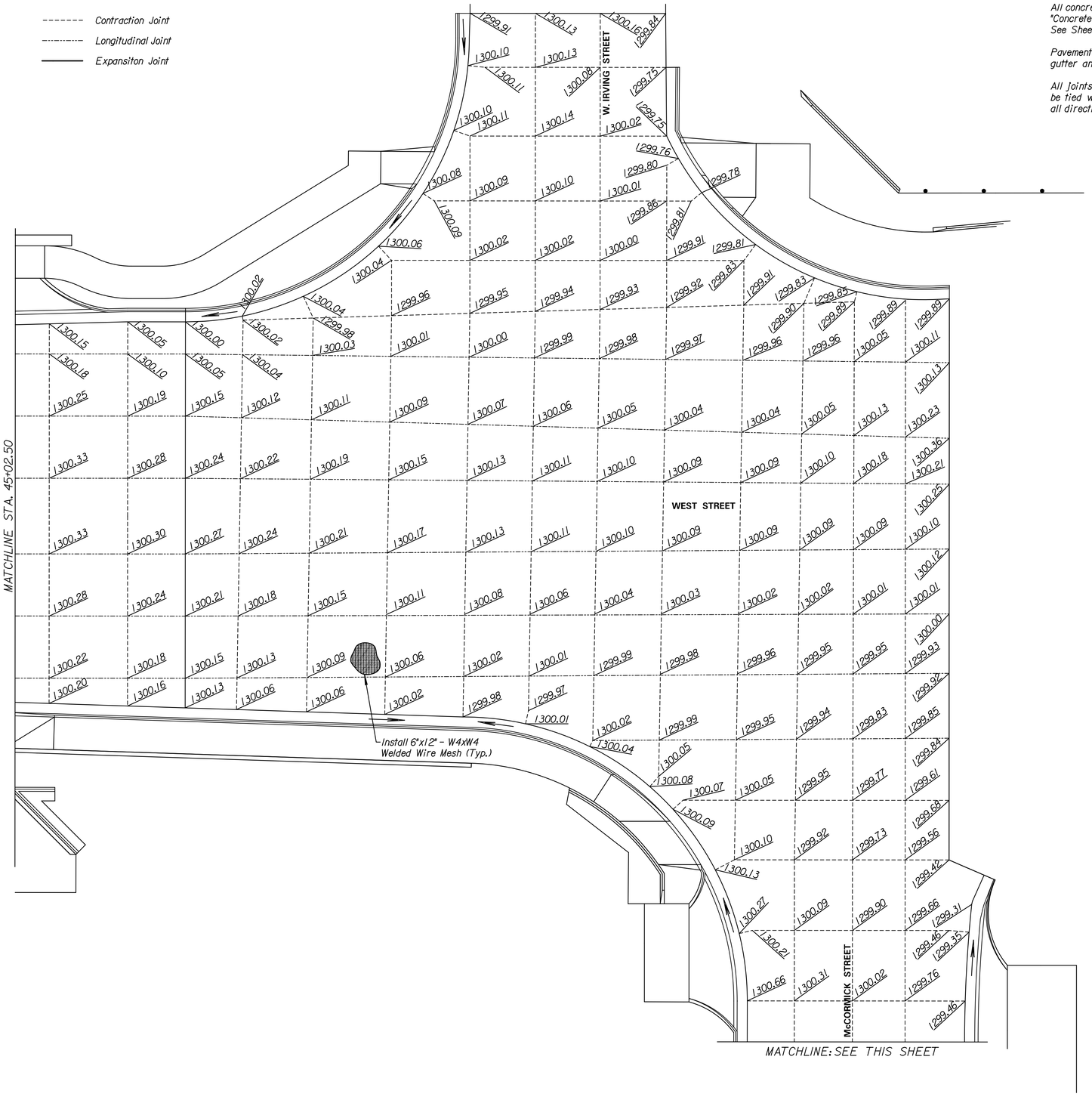
Contraction Joint
Longitudinal Joint
Expansiton Joint

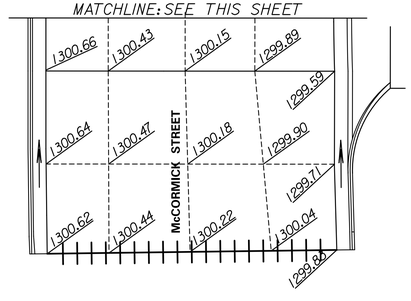
All concrete pavement on valley gutters shall be "Concrete Pavement (VG) 8" (Reinf.)" See Sheet 55

Pavement Joints shall be continued through curb & gutter and match joint patterns where possible.

All Joints within the reinforced concrete pavement shall be tied with #4 bars 2' long spaced on 30" centers in all directions with 6" x 12" - W4 x W4 welded wire mesh.

SCALE
10' 0 10' 20'
1"=10'





TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=10'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

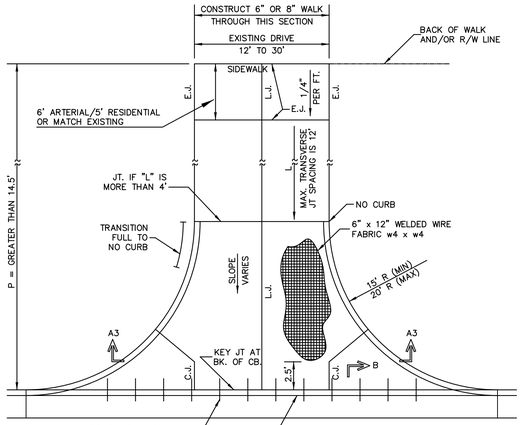
SHEET TITLE:

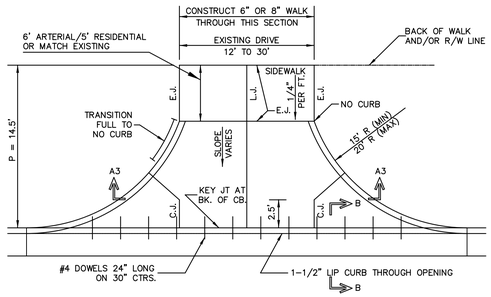
WEST STREET
JOINTING PLAN
STA. 45+02.50.00 TO
STA. 46+75.35

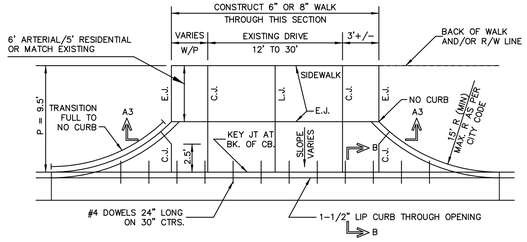
SHEET NO.
47
SHEET 47 OF 262

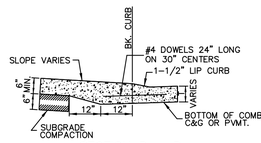
mhoemer
2/25/2020 - 1:37:42 PM - c:\transystems\ow_local\transystems\pw_1\mhoemer\d0519510C_ANT-M01-110.dgn

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



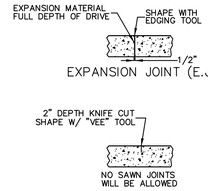






SECTION B – B

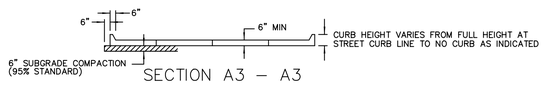
ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)

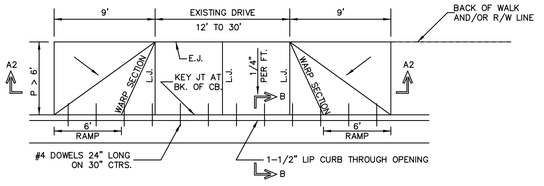
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

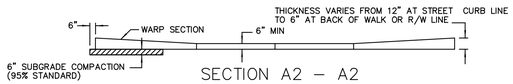
BACK OF CURB DETAIL



SECTION A3 – A3

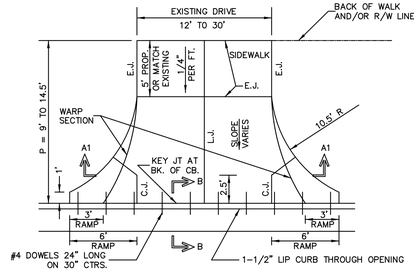
FULL RADIUS DRIVES (ARTERIAL/COLLECTOR DRIVEWAY)

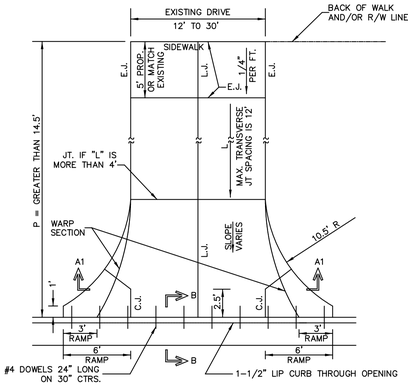


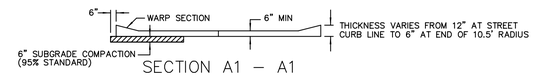


SECTION A2 – A2

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







SECTION A1 – A1

RADIUS RAMP DRIVES (RESIDENTIAL DRIVEWAY)

GENERAL NOTES

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

REVISED: NOVEMBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

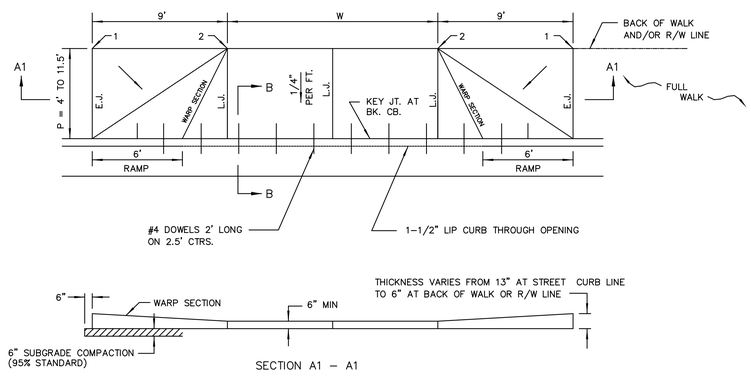
STANDARD DRIVE ENTRANCES FULL HEIGHT CURB

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

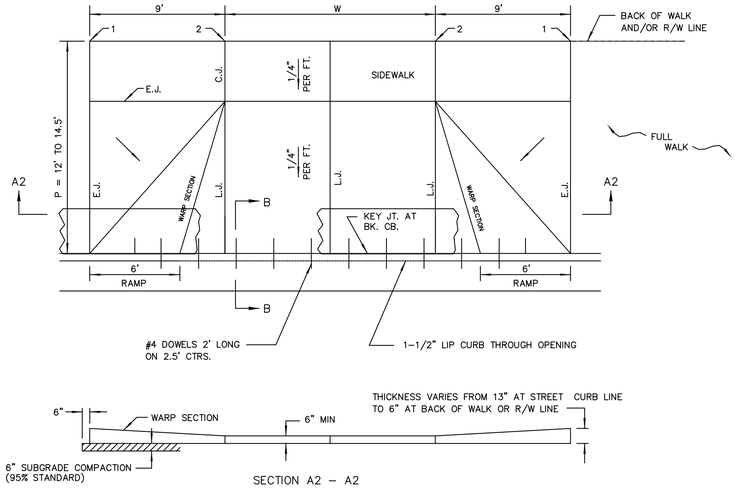
SHEET



SECTION A1 – A1

PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'	7'	7.5'	8'	8.5'	9'	9.5'	10'	10.5'	11'	11.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CURB	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'	0.15'	0.16'	0.17'	0.18'	0.19'	0.20'	0.21'	0.22'	0.23'	0.24'
DIST. OF PT. "2" BELOW TOP OF FULL CURB	–.34'	–.32'	–.30'	–.28'	–.26'	–.24'	–.22'	–.20'	–.18'	–.16'	–.14'	–.12'	–.10'	–.18'	–.06'	–.04'

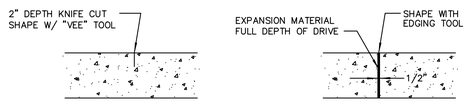
FULL RAMP DRIVE (P = 4.0' TO 11.5')



SECTION A2 – A2

PARKING WIDTH "P"	12'	12.5'	13'	13.5'	14'	14.5'
ABSOLUTE MAX. DIST. OF PT. "1" ABOVE TOP OF FULL CURB	–.08'	0.02'	0.18'	0.22'	0.18'	0.22'
OPTIMUM MAX. DIST. OF PT. "1" ABOVE TOP OF FULL CURB	–.08'	0.02'	0.18'	0.22'	0.18'	0.22'
OPTIMUM MIN. DIST. OF PT. "2" ABOVE TOP OF FULL CURB	–.15'	–.16'	–.17'	–.17'	–.17'	–.17'
ABSOLUTE MIN. DIST. OF PT. "2" ABOVE OR BELOW TOP OF FULL CURB	–.25'	–.20'	–.20'	–.20'	–.20'	–.20'
ABSOLUTE MIN. DIST. OF PT. "2" BELOW TOP OF FULL CURB	–.25'	–.20'	–.20'	–.20'	–.20'	–.20'

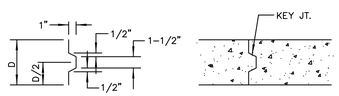
FULL RAMP DRIVE (P = 12.0' TO 14.5')



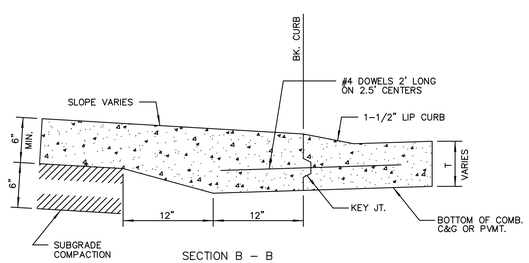
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

NO SAWN JOINTS
WILL BE ALLOWED

EXPANSION JOINT (E.J.)



ALT. LONGITUDINAL CONSTRUCTION JOINT



SECTION B – B

BACK OF CURB DETAIL

GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITH FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITHOUT FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'.
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. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
6. 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.
7. 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.
8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THE MAY BE REINFORCED WITH 6"X12" W4–W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

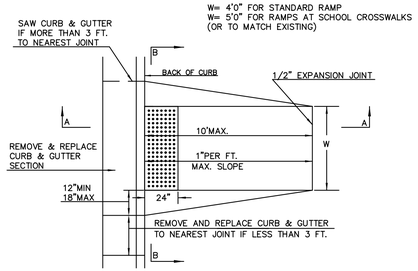
STANDARD DRIVE ENTRANCES FULL HEIGHT CURB AND FULL WALK

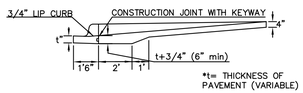
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

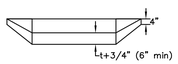
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

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



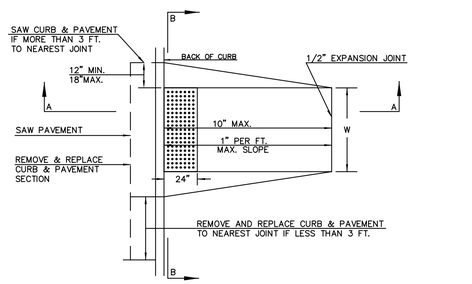


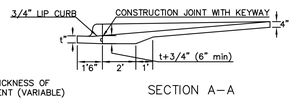
SECTION A–A



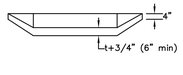
SECTION B–B

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



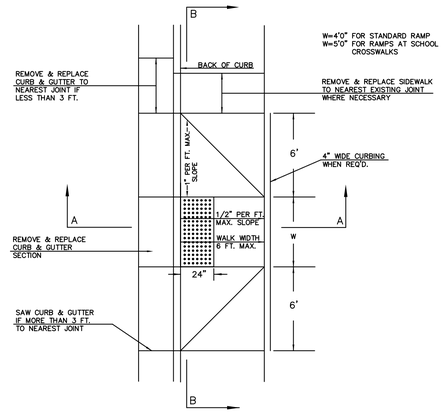


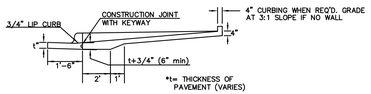
SECTION A–A



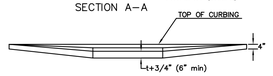
SECTION B–B

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



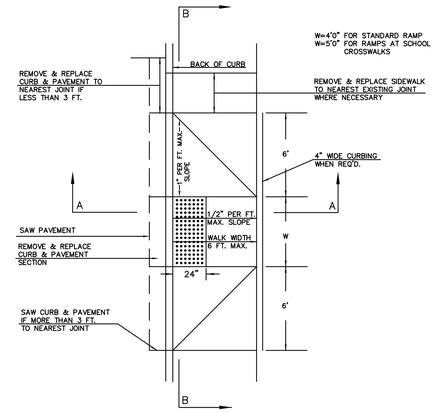


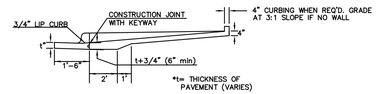
SECTION A–A



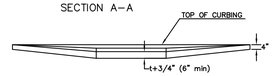
SECTION B–B

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



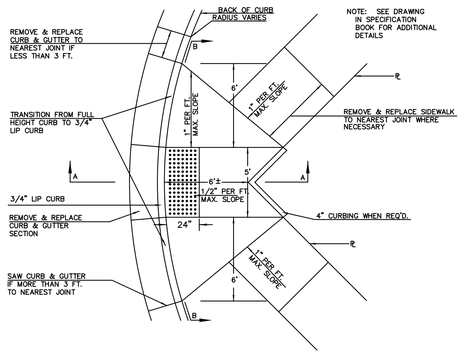


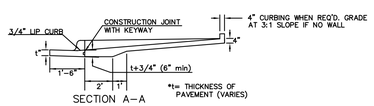
SECTION A–A



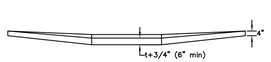
SECTION B–B

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)



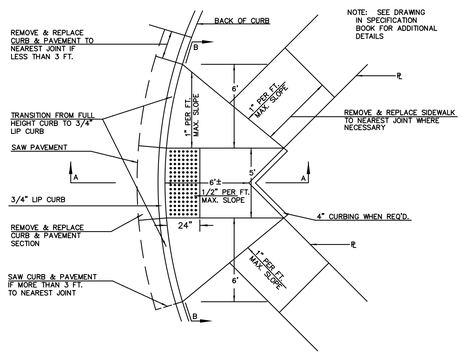


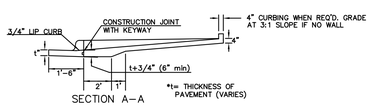
SECTION A–A



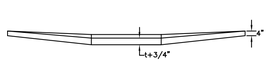
SECTION B–B

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



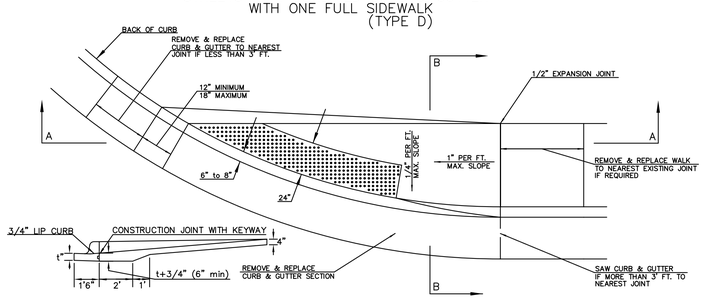


SECTION A–A



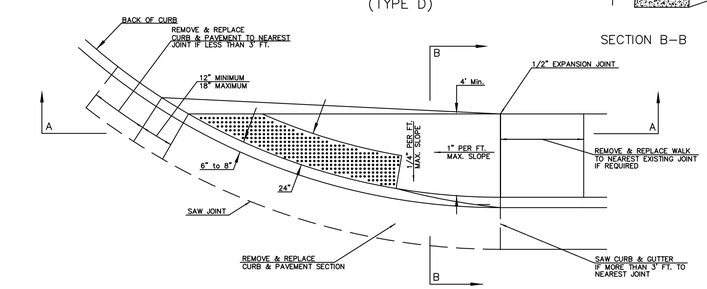
SECTION B–B

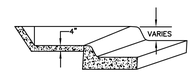
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER WITH ONE FULL SIDEWALK (TYPE D)



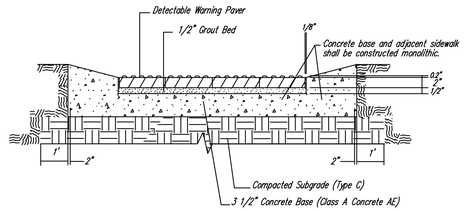
SECTION A–A

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





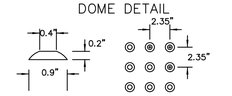
SECTION B–B



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
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
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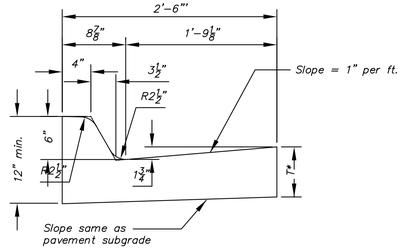
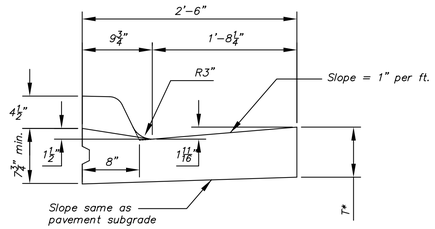
TYPE 1
(Arterial curb)

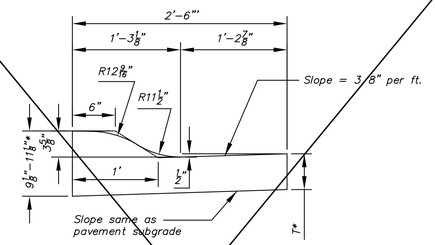


Combined Curb & Gutter (6")

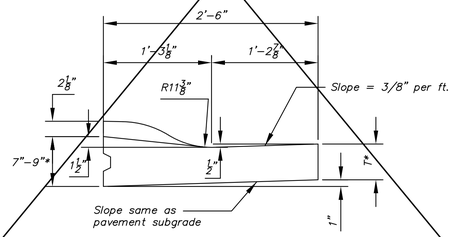


Combined Curb & Gutter (1 1/2")

TYPE 2
(Roll curb)

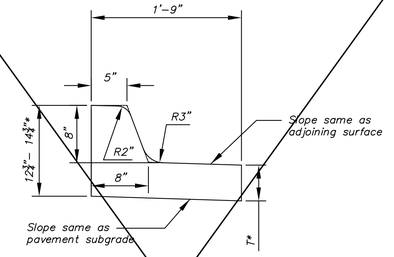


Combined Curb & Gutter (3 5/8")

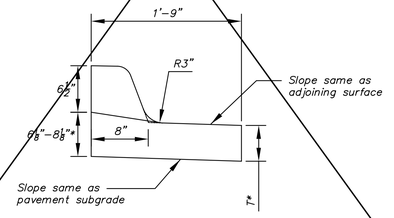


Combined Curb & Gutter (1 1/2")

TYPE 3
(Median curb)

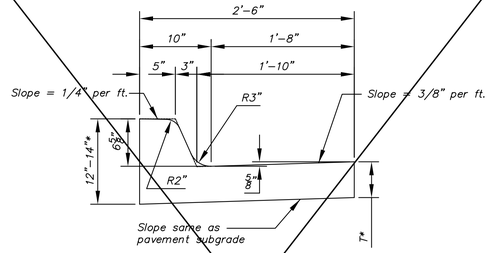


Combined Curb & Gutter (8")

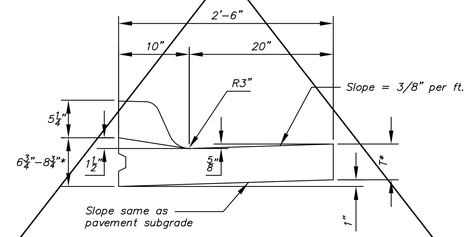


Combined Curb & Gutter (1 1/2")

TYPE 4
(Residential curb)

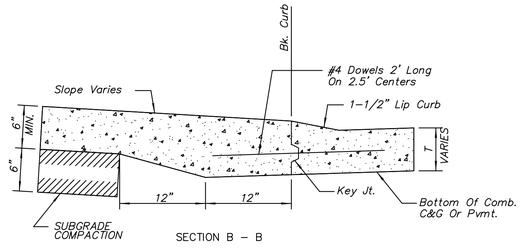


Combined Curb & Gutter (6 5/8")



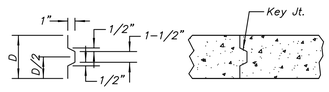
Combined Curb & Gutter (1 1/2")

T* = Thickness of curb to adjust with pavement thickness

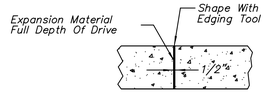


SECTION B – B

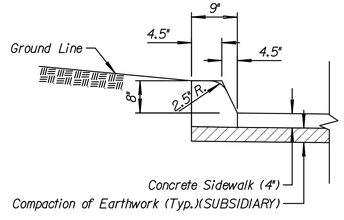
BACK OF CURB DETAIL



ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)



8" Edge Curb Detail

8" Edge Curb shall be paid for by the bid item "Concrete Edge Curb (8")" and shall include all work, materials, labor and equipment necessary to complete this work. The edge curb may be placed monolithically with sidewalk. Joints from sidewalk shall be continued through edge curb and no other planes of weakness will be required. All exposed edges shall be finished with an edging tool. Edge curb shall have a 2.5' transition from sidewalk to full curb height at each end.

GENERAL NOTES

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

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

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

REVISED: OCTOBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

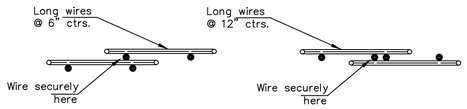
CURB & GUTTER & PAVING BRICK CROSSWALK DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

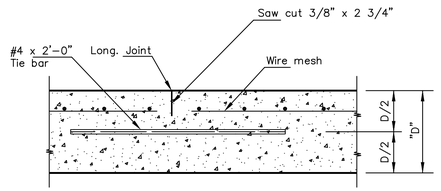
SHEET
51 of 262



DETAIL OF LAP FOR WIRE MESH

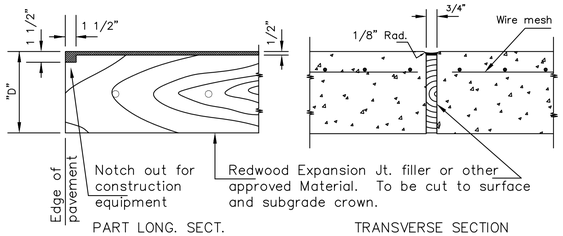
NOTE: The lap shall extend beyond the first transverse wire of each sheet.
The sheets shall be wired securely at the edges and at intervals not to exceed 2'–6" for the full width of the sheet. Approx. weight of wire mesh = 44 lbs. per 100 sq. ft.
Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.

NOTE: CONTRACTION JOINTS AND EXPANSION JOINTS SHALL BE FORMED IN THE MONOLITHIC CURB AT ALL LOCATIONS WHERE SUCH JOINTS ARE PLACED IN THE PAVEMENT. ADDITIONAL CONTRACTION JOINTS SHALL BE CUT IN THE MONOLITHIC CURB IN UNIFORM LENGTHS NOT EXCEEDING TEN FOOT INTERVALS BETWEEN THOSE JOINTS WHICH COINCIDE WITH JOINTS IN THE PAVEMENT.

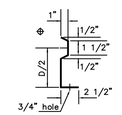


LONGITUDINAL JOINT DETAIL
TRANSVERSE SECTION

NOTE: Longitudinal joint formed by sawing 2 3/4" deep and 3/8" wide and filled as specified in standard specifications.



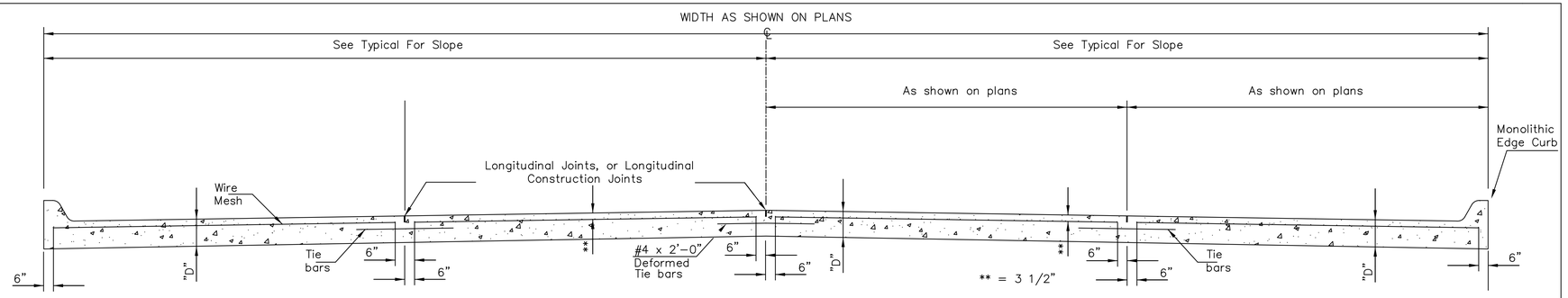
PART LONG. SECT. TRANSVERSE SECTION



SECTION OF RECESSED
FORM LEG

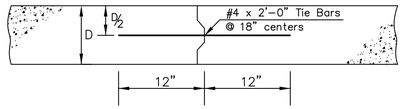
EXPANSION JOINT DETAIL

NOTE: EXPANSION JOINT MATERIALMUST BE SECURELY HELD IN PLACE BY USING METAL STAKES, METAL PINS, OR BY OTHER APPROVED METHODS SO THAT WHEN THE PAVEMENT IS COMPLETED THE EXPANSION MATERIAL WILL BE PERPENDICULAR TO THE SURFACE OF THE COMPLETED PAVEMENT. CONCRETE SHALL BE HAND PLACED ON EACH SIDE OF THE EXPANSION JOINT MATERIAL IN A MANNER THAT WILL PRECLUDE DISPLACEMENT OF THE EXPANSION JOINT MATERIAL.



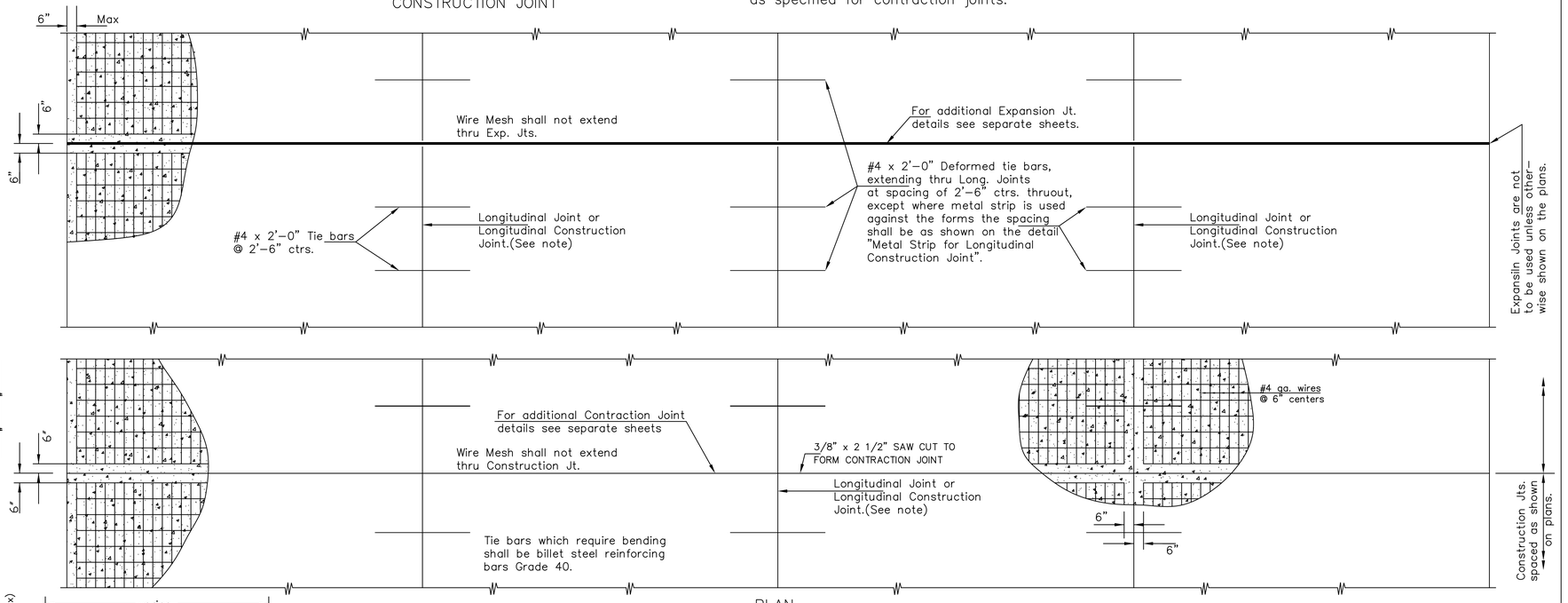
TRANVERSE SECTION

** Note: The 3 1/2" as shown on standard sheet is a nominal dimension and may be subject to a normal uneveness due to placement operations.

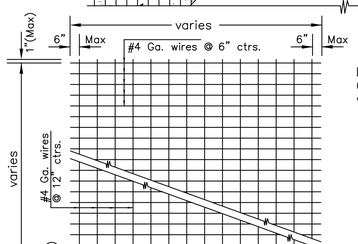


CONSTRUCTION JOINT

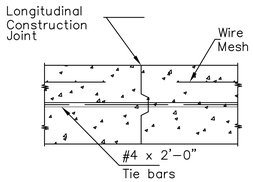
Note: A Construction Joint is required when the pour has been interrupted for a substantial length of time or at the end of a day's pour.
Transverse Construction Joints shall be sawed and filled as specified for contraction joints.



PLAN

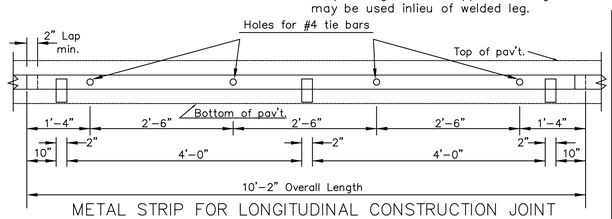


TYPICAL SHEET OF WELDED WIRE MESH



LONGITUDINAL CONSTRUCTION
JOINT DETAIL
TRANSVERSE SECTION

⊕ Snap–in leg or other approved designs may be used inlieu of welded leg.



METAL STRIP FOR LONGITUDINAL CONSTRUCTION JOINT

TO BE USED ONLY AGAINST FORMS. SHALL NOT EXTEND THROUGH CONTRACTION OR EXPANSION JOINTS.
OTHER TYPES OF CONSTRUCTION SHALL BE PERMITTED WITH THE APPROVAL OF THE ENGINEER.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

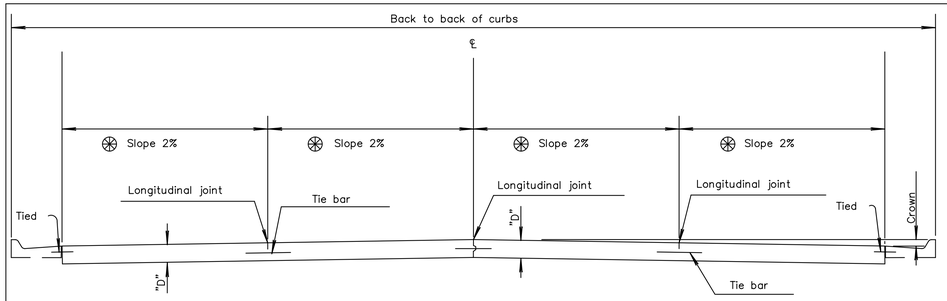
CONCRETE PAVEMENT DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

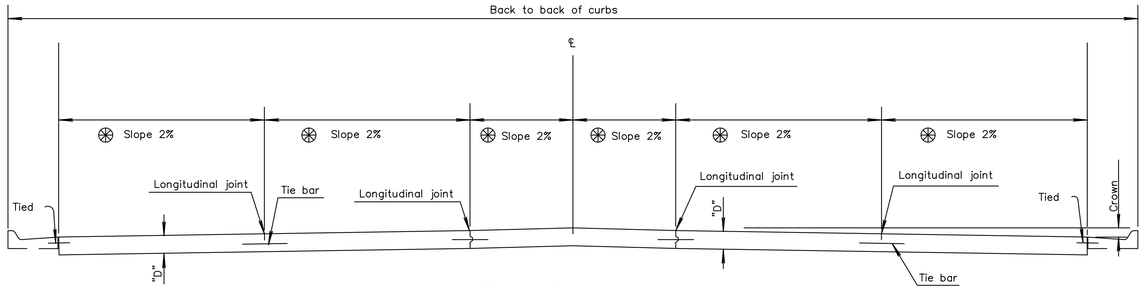
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
52 of 262



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

TRANSVERSE SECTION
(4 – LANE WITH CURB & GUTTER)



TRANSVERSE SECTION
(5 – LANE WITH CURB & GUTTER)

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

GENERAL NOTE

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

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

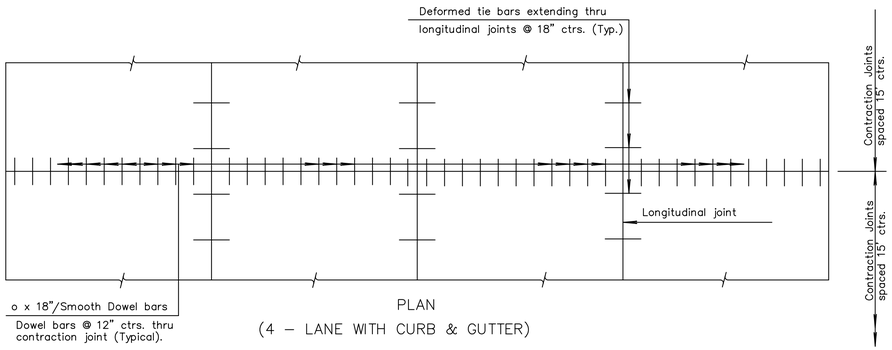
Place pressure relief joint at the end of the bridge approach pavement slab (no bars through joint). For details of pressure relief joint see KDOT Standard Drawing RD712.

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

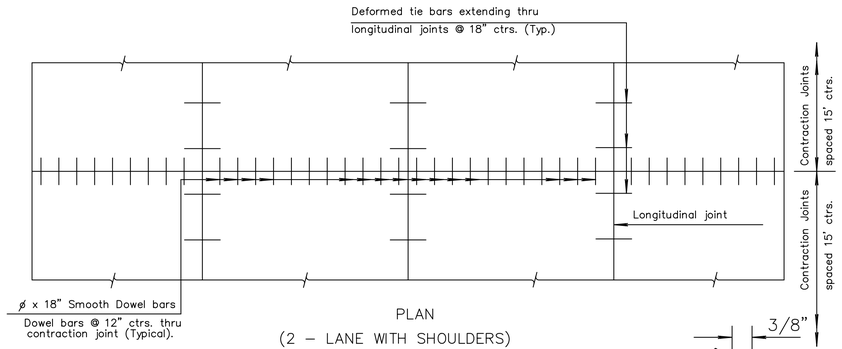
◆ Fill all sawed joints on the project in accordance with the Standard Specifications.

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

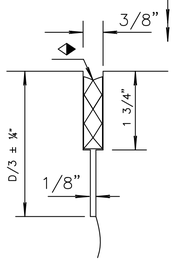
Evenly space tie bars along the length of slab with no tie bar within 12" of contraction joint. All longitudinal joints are tied.



PLAN
(4 – LANE WITH CURB & GUTTER)

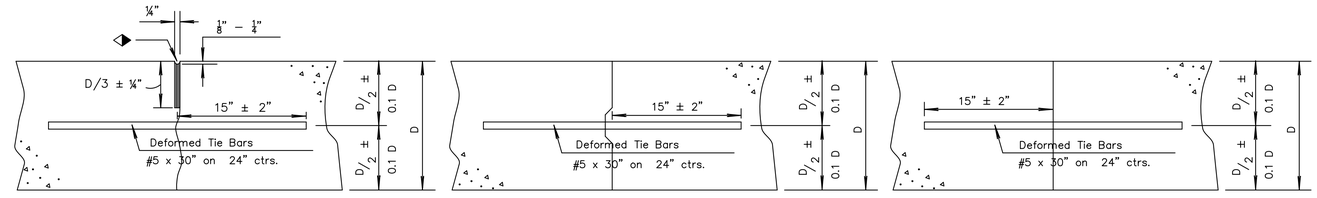


PLAN
(2 – LANE WITH SHOULDERS)



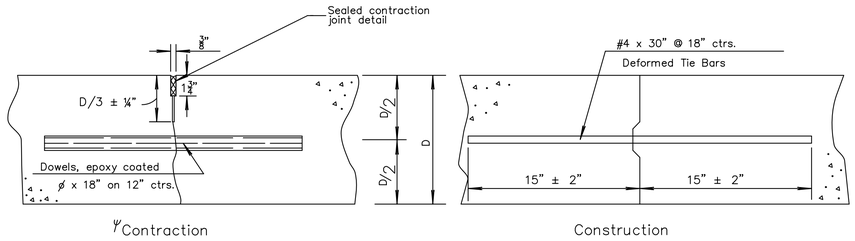
Ψ DETAIL OF SEALED CONTRACTION JOINT SAWCUT

Make an initial $\frac{1}{8}$" saw cut(D/3 ± $\frac{1}{4}$" depth); the second $\frac{3}{8}$" saw cut is a separate operation done after concrete has gained sufficient strength to avoid spalling as determined by the Engineer.



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

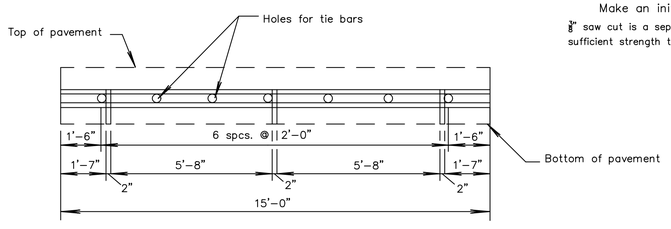
LONGITUDINAL JOINTS



Ψ Contraction Construction

TRANSVERSE JOINTS

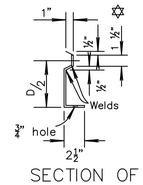
Note: Construct contraction joints at plan locations or at the Engineer's direction.
When necessary to interrupt continuous placement for a substantial length of time or at the end of a day's paving, the Contractor has the option of ending placement at a contraction joint or with a construction joint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



METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT

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

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



SECTION OF
RECESSED
FORM LEG

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

PAVEMENT DEPTH
D=9"

REVISED: NOVEMBER 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

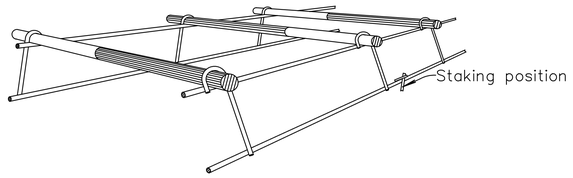
CONCRETE PAVEMENT DOWEL JOINTED NON-REINFORCED

CITY ENGINEER
GARY JANZEN, P.E.

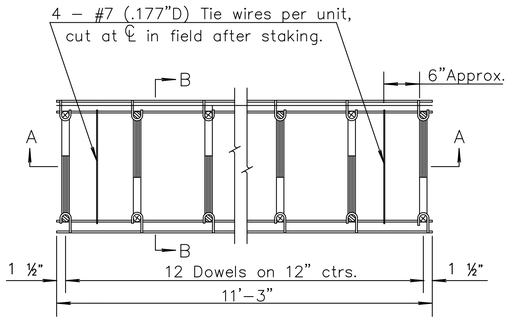
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

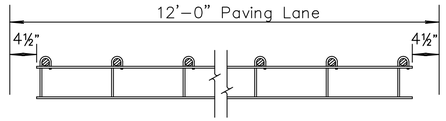
SHEET
53 of 262



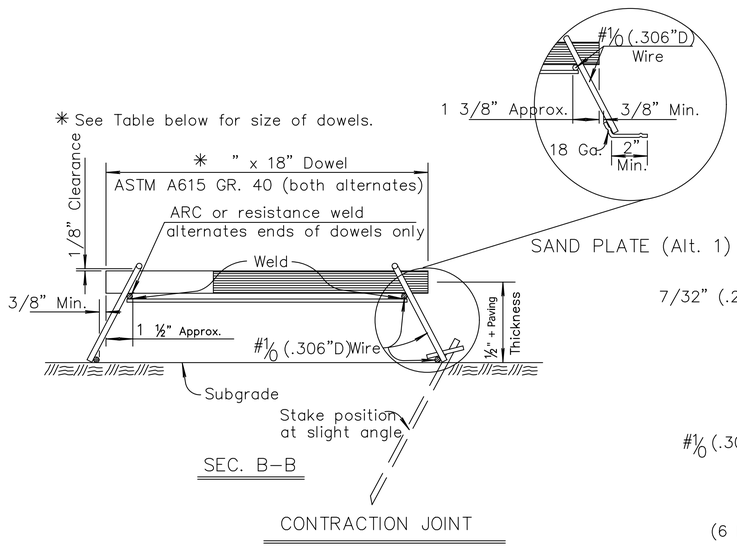
PERSPECTIVE VIEW



PLAN VIEW



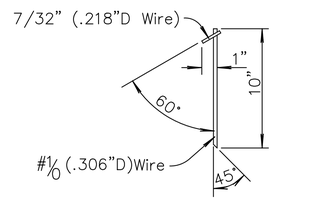
SEC. A–A



SEC. B–B

SAND PLATE (Alt. 1)

CONTRACTION JOINT



STAKE DETAIL

(6 Pieces minimum required)

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

PAVEMENT DEPTH

D=9"

GENERAL NOTE

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

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

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

Alt. 1 (Baskets)

Wire sizes shown are minimum required.

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

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

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

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

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

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

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

Alt. 2 (Mechanical placement)

Joint spacing shall be normal to centerline.

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

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

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

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

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

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

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

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

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

REVISED: NOVEMBER 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CONTRACTION & EXPANSION JT. DOWEL ASSEMBLIES

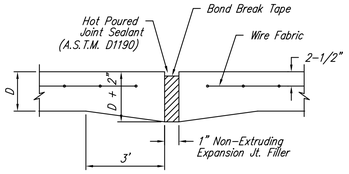
CITY ENGINEER

GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

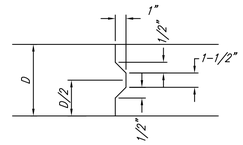
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

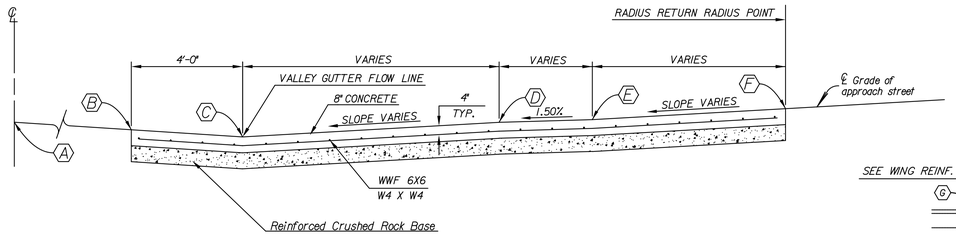


EXPANSION JOINT

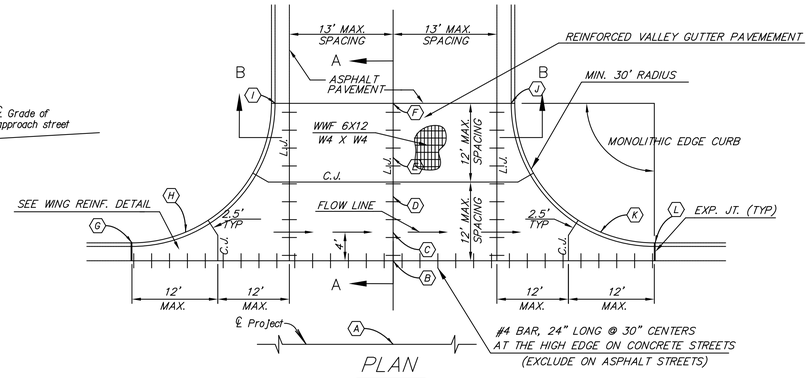
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



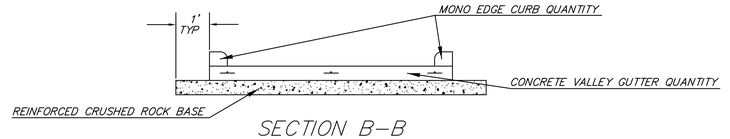
KEYWAY DETAIL



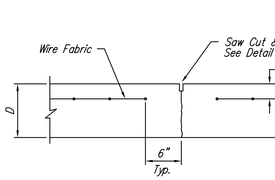
SECTION A–A



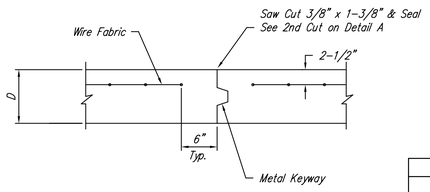
PLAN



SECTION B–B



CONTRACTION JOINT DETAIL (C.J.)



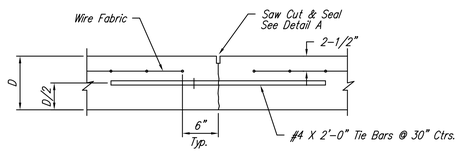
OPTIONAL CONTRACTION JOINT

REINFORCED VALLEY GUTTER DETAIL

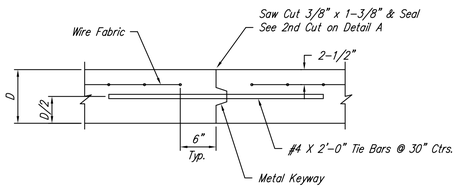
VALLEY GUTTER SUMMARY

SIDE STREET	STATION	SIDE	ELEV. PT. "A"	ELEV. ON ℄ OF APPROACH STREET PT. "B"	PT. "C"	PT. "D"	ELEV. PT. "E"	ELEV. PT. "F"	ELEV. PT. "G"	ELEV. PT. "H"	ELEV. PT. "I"	ELEV. PT. "J"	ELEV. PT. "K"	ELEV. PT. "L"	APPR. STR. GRADE	SQ. YDS. CONC. PAVT. (8" UNIFORM)(AE)
Monroe Street	28+16.30	Lt.	1299.32	1298.72	1298.58	1298.67	1298.74	1299.07	1298.76	1298.81	1299.50	1299.67	1299.35	1299.42	0.4%	384.2
Walker Street	34+76.82	Lt.	1300.36	1299.76	1299.62	1299.70	1299.75	1300.11	1299.96	1299.99	1300.33	1300.34	1300.25	1300.28	0.3%	489.4
Walker Street	34+78.13	Rt.	1300.37	1299.76	1299.62	1299.70	1299.75	1300.08	1300.27	1300.18	1300.32	1300.24	1300.00	1299.96	0.1%	426.2
Irving Street	41+38.34	Rt.	1301.35	1300.75	1300.60	1300.69	1300.74	1301.03	1300.93	1300.25	†1300.85	1301.29	1301.24	1301.27	0.1%	327.6

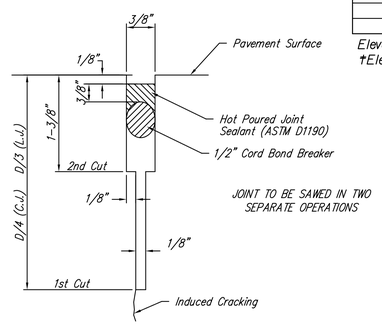
Elevation points G, H, I, J, K, and L are to the back of curb.
†Elevation is to the top of the Type I Curb and Gutter (1 1/2") for the entrance pavement



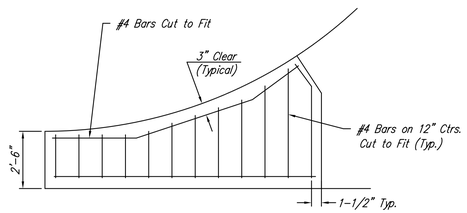
LONGITUDINAL JOINT DETAIL (L.J.)



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

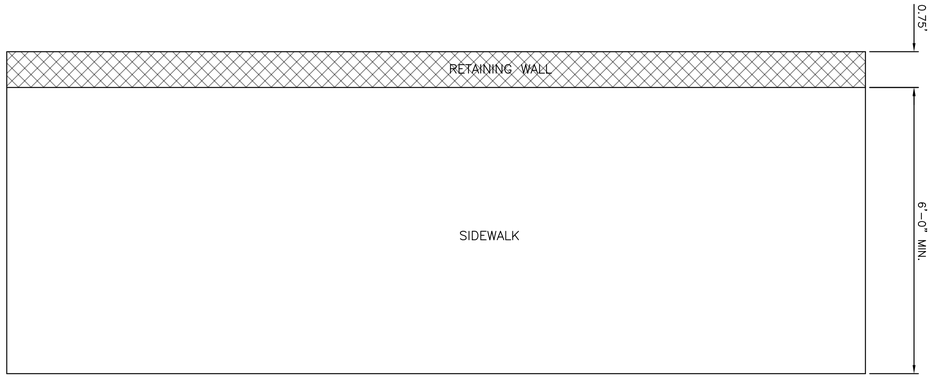
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

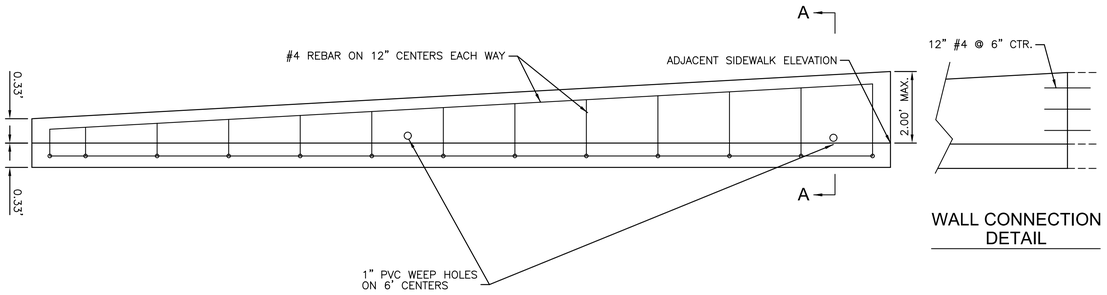
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
55 of 262

COMBINED SIDEWALK AND RETAINING WALL DETAIL

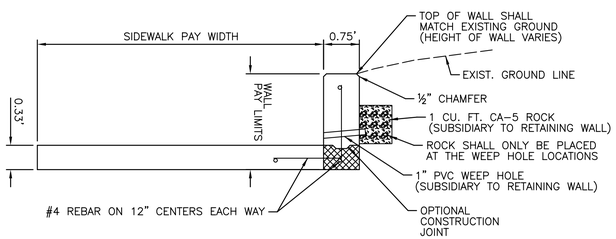


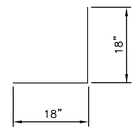
PLAN VIEW



WALL CONNECTION DETAIL

ELEVATION





#4 REBAR CORNER

PLACE EVERY 12" MINIMUM 2 PER CORNER

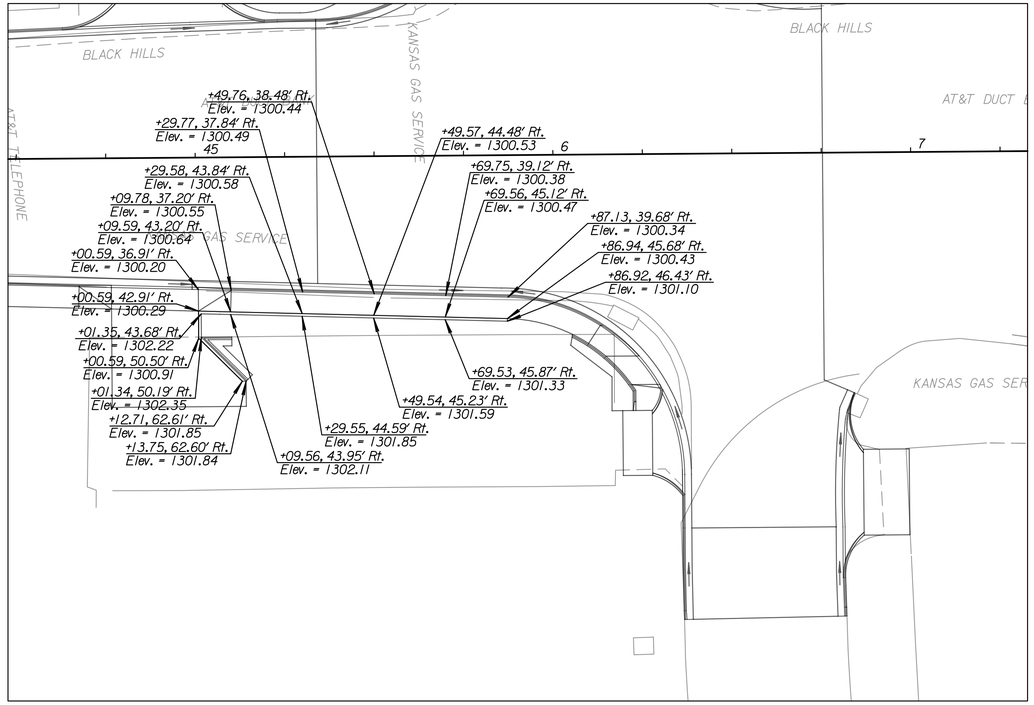
SECTION A-A

NOTE: ALL REINFORCEMENT SUBSIDIARY TO RETAINING WALL BID ITEM.

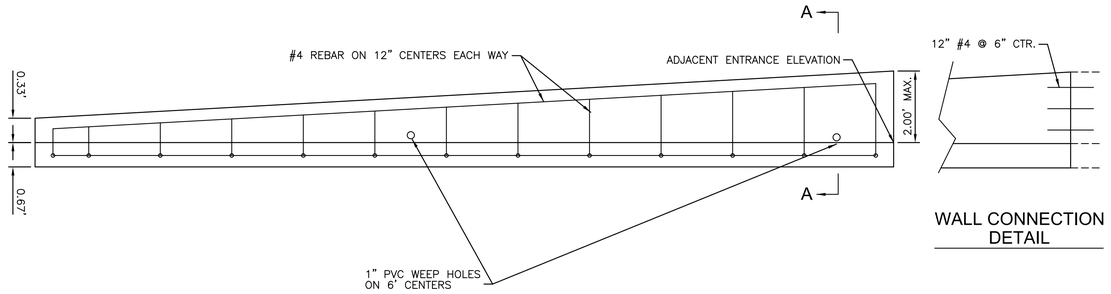
RETAINING WALL SHALL BE PAID FOR BY THE S.F.F. OF WALL AND BY THE BID ITEM "RETAINING WALL"

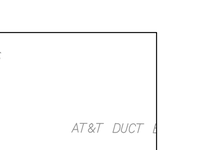
RETAINING WALLS ARE LOCATED FROM:
STA. 27+03.35, 50.00' LT. TO STA. 27+84.60, 50.77' LT.
STA. 28+46.64, 58.18' LT. TO STA. 29+14.85, 40.43' LT.
STA. 40+28.06, 50.00' LT. TO STA. 40+92.45, 45.12' LT.
STA. 45+13.75, 62.61' RT. TO STA. 45+86.92, 46.43' RT.

RETAINING WALL DETAIL FOR BERRY TRACTOR



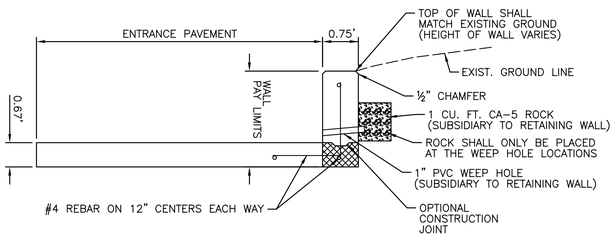
COMBINED ENTRANCE AND RETAINING WALL DETAIL

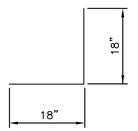




WALL CONNECTION DETAIL

ELEVATION





#4 REBAR CORNER

PLACE EVERY 12" MINIMUM 2 PER CORNER

SECTION A-A

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO: 472-85296
SCALE: N/A
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

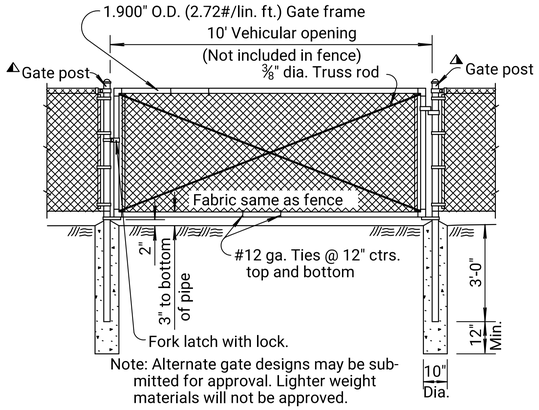
RETAINING WALL DETAILS

SHEET NO. 56

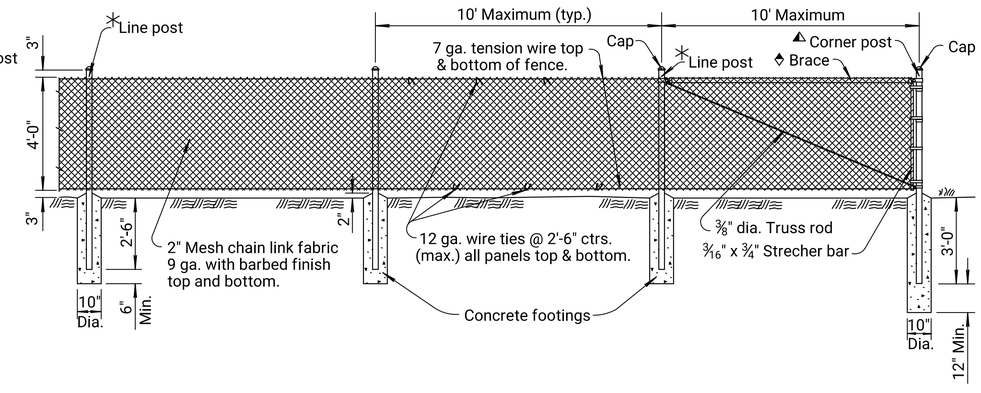
SHEET 56 OF 262

mlhoerner
2/25/2020 - 1:38:13 PM - c:\transystems\pw_local\transyscorp-pw1.mlhoerner\d0519510\C-DET-RET-501.dgn

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



DETAIL of GATE, HINGE & SPECIFICATIONS



CHAIN LINK FENCE

(STEEL)

✡ Steel line post 7'-0" length
Studded T (1.33#/lin. ft.)
U (1.33#/lin. ft.)
H (2.27#/lin. ft.)

♦ Brace
1.660" O.D., 0.111" Th. (1.84#/lin. ft.) pipe (Group 1C) or
1.660" O.D., 0.140" Th. (2.27#/lin. ft.) pipe (Group 1A) or
1⅝"x1¼" Brace rail (See Alt. Details)

✳ Line post 7'-0" length.
2.375" O.D., 0.154" Th. (3.65#/lin. ft.) pipe (Group 1A) or
2.375" O.D., 0.130" Th. (3.12#/lin. ft.) pipe (Group 1C) or
1⅝"x1⅞" C Post (2.283/lin. ft.)

▲ End, corner, gate, or pull post 7'-6" length.
(A120) 2.875" O.D., 0.203" Th. (5.79#/lin. ft.) pipe (Group 1A)
or 2.875" O.D., 0.160" Th. (4.64#/lin.ft.) pipe (Group 1C)

GENERAL NOTE

Wood posts and braces shall be given a preservative treatment as provided in the KDOT Standard Specifications.

Both ends of all wood posts shall be cut normal to the axis of the post. Pointed posts will not be permitted.

Wood corner, end, pull and approach posts shall be notched to support ends of wood braces. Wood braces shall be toenailed to the posts with 2-10d nails in each end of the brace.

When wood posts are used, both ends of all tension wires shall be wrapped around the posts twice and stapled in place.

When wood posts are used the fence shall be grounded by a ⅝" diameter galvanized or copper coated rod five feet long, driven vertically until the top is six inches below the ground surface. A #6 solid copper conductor shall be securely fastened to each element of the fence by use of clamps or other suitable device. Grounding rod shall be installed at intervals of 175' maximum.

In lieu of using the galvanized or copper coated rod as described above the contractor may, at his option, use a steel line post at intervals not to exceed each eighth post.

The galvanized or copper coated rod shall be used where power lines pass over the fence.

All steel posts, braces, fittings, and gate frames shall be galvanized and/or coated in accordance with the Standard Specifications.

Steel posts shall be provided with fasteners prevent slippage of the wire strands.

Outside diameters shown for tubular steel posts, bracing and gate frames are nominal. Weight tolerances shall be as shown in the KDOT Standard Specifications.

Posts may be set by driving or digging. If by digging, the posts shall be set in the center of the hole and the soil tamped securely on all sides.

Pull post assembly shall be used at sharp breaks in vertical grade or at approximately 330' centers (Woven & Chain link) or 1320' centers (Barbed wire) on straight runs or as directed by the Engineer.

Concrete used in fence installation shall conform to the requirements of the KDOT Standard Specifications.

Woven wire, chain link fabric, barbed wire and tension wire shall be either zinc coated (galvanized) or aluminum coated.

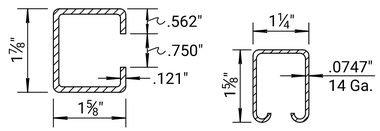
Minimum strength of barbed wire and tension wire shall be as provided in the KDOT Standard Specifications.

Use #9 gauge galvanized staples 1½" to 1¾" long, or #9 guage galvanized Ring-shank staples 1½" to 1¾" long.

Alternate gate designs may be submitted for approval. Lighter weight materials will not be approved.

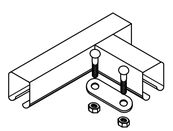
Padlocks for gates shall be furnished by the State.

No Wood Posts are allowed for new or reconstruction fence installations on the State Highway System. Shop drawings for steel gate post assembly designs are to be submitted to the State Road Office, Bureau of Design for approval prior to construction

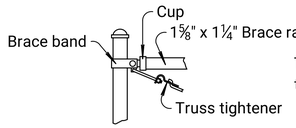


LINE POST (C)
2.28#/Lin. Ft.

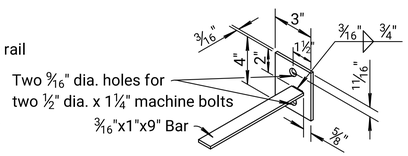
BRACE RAIL SECTION



CORNER CONNECTOR
for BRACE RAILS



BRACE & TRUSS CONNECTION
at BRACE POST



END POST TORQUE BAR

ALTERNATE CHAIN LINK DETAILS

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

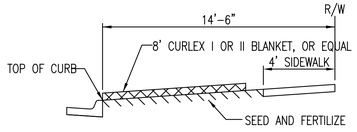
PROJ NO: 472-85296
SCALE: N.T.S.
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
CHAIN LINK FENCE DETAILS

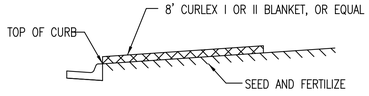
SHEET NO.
57
SHEET 57 OF 262

mhopmer
2/25/2020 - 1:38:18 PM - c:\transystems\pw_local\transyscorp.pw\1\ntoomen\d0519510\rdt670.dgn

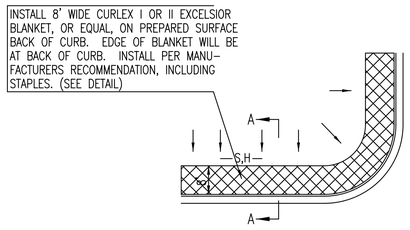
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



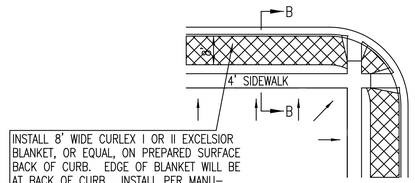
SECTION B-B



SECTION A-A



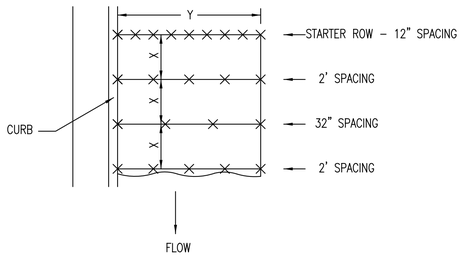
SOUTH STREET



GENERAL NOTES

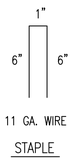
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE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

BACK OF CURB PROTECTION DETAIL



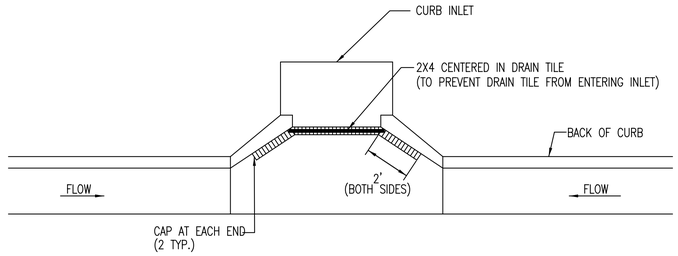
STAPLE PATTERN

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



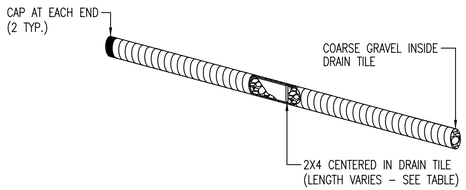
STAPLE

DETAILS FOR APPROVED EROSION CONTROL MAT



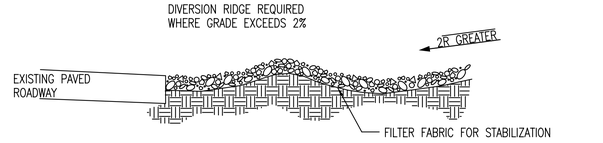
NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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

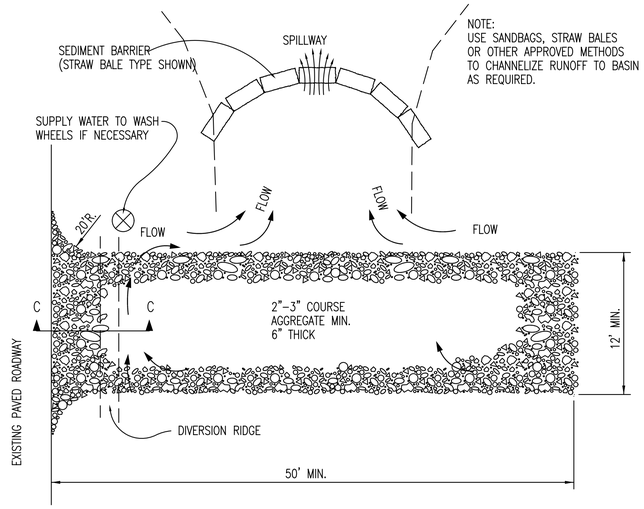


CURB INLET PROTECTION

4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

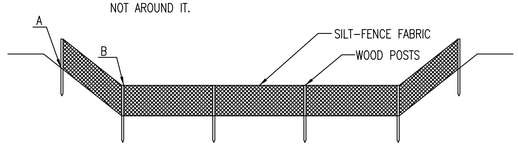
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

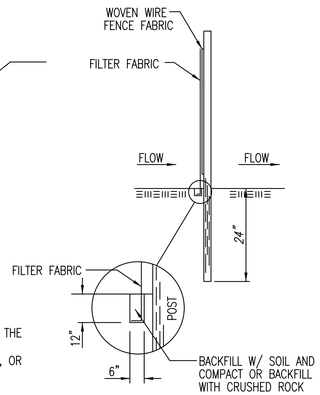
SHEET
58 of 262

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



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED.
WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED.
SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH.
THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK.
SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD.
SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6R LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

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

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

PROPER INSTALLATION METHOD:

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

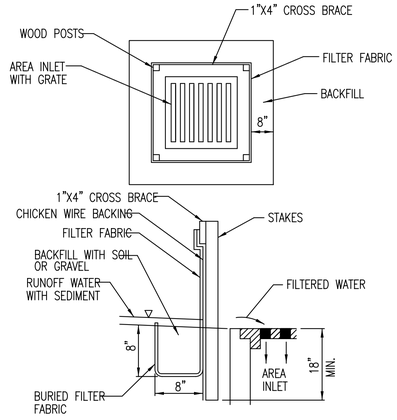
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS.
SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED.
WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME.
WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE.
DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET.
THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM.
CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING.
ATTACH THE WIRE OR POLYMERIC–MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED.
ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

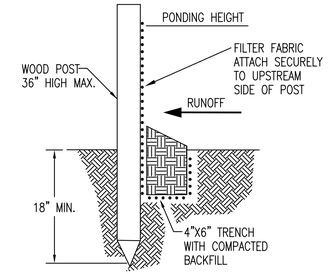
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET–NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

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

DOES WATER FLOW UNDER THE SILT FENCE?
DOES THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

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

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE.
MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH.
PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT–FENCE FABRIC SHOULD REMAIN EXPOSED.
LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18".
PLACE POSTS NO MORE THAN 4' APART.
ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES.
DO NOT PLACE SILT–FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT.
SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND–SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

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

ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
DOES WATER FLOW UNDER THE SLOPE BARRIER?
DO THE SILT FENCES SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
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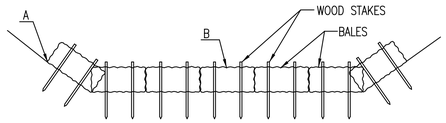
NOTE: POINT A MUST BE HIGHER THAN POINT B
SO THAT WATER FLOWS OVER THE BALES AND
NOT AROUND THEM.



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% 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".

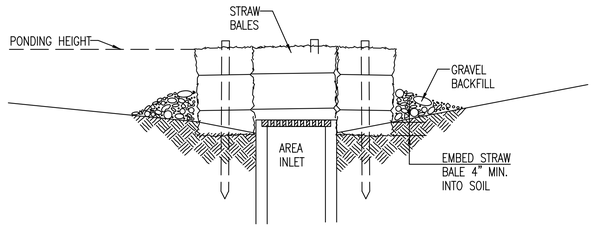
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

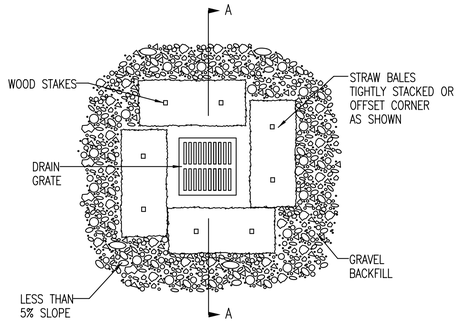
INSPECTION AND MAINTENANCE:

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.

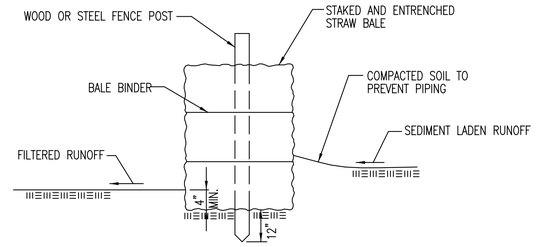
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
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GENERAL NOTES

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

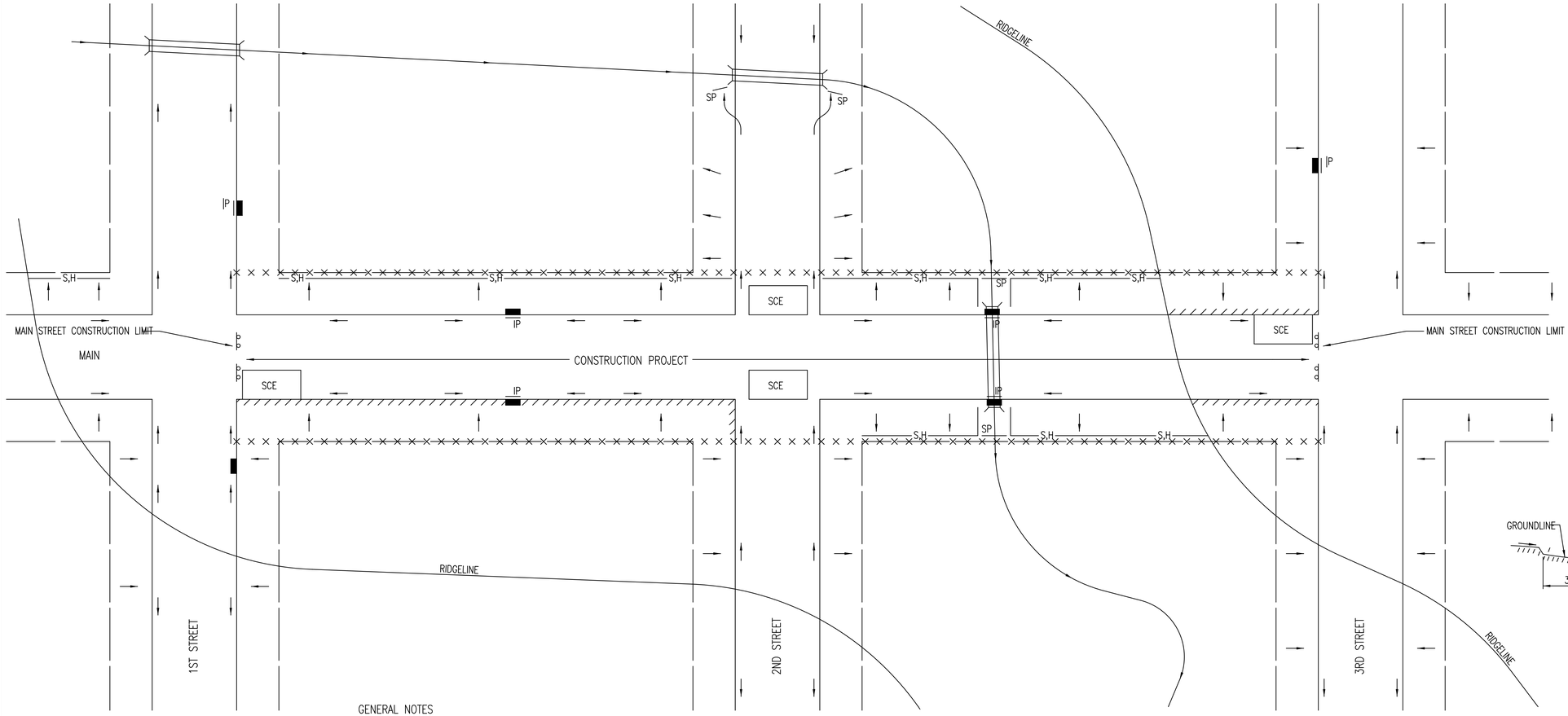
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

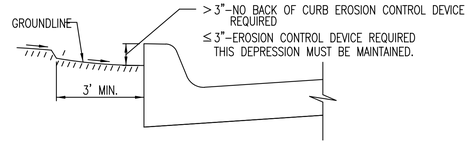
3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.

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

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

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





CURB BACKFILL DETAIL

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

REVISION: JUNE 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STREET IMPROVEMENT PROJECTS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

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VALVE BOX ADJUSTED

STATION	OFFSET	SIDE
21+95.27	25.87	Rt.
TOTALS (EA.)		1

MANHOLE ADJUSTED, SS

STATION	OFFSET	SIDE
22+03.92	37.39	Lt.
TOTALS (EA.)		1

MANHOLE ADJUSTED, TRAFFIC

STATION	OFFSET	SIDE
22+17.79	41.07	Lt.
TOTALS (EA.)		1

WATER METER ADJUSTED

STATION	OFFSET	SIDE
47+29.79	57.47'	Lt.
TOTALS (EA.)		1

MANHOLE ADJUSTED, SWS

STATION	OFFSET	SIDE
39+74.00	45.55'	Lt.
TOTALS (EA.)		1

INLET ADJUSTED

STATION	OFFSET	SIDE
38+70.99	45.35'	Lt.
TOTALS (EA.)		1

WHEELCHAIR RAMPS W/ DETECTABLE WARNINGS

STATION	OFFSET	SIDE	EA
20+99.61	43.02'	Lt.	1
21+00.47	44.00'	Rt.	1
21+08.33	46.02'	Lt.	1
21+13.23	49.43'	Rt.	1
21+96.70	49.23'	Rt.	1
21+99.38	46.03'	Lt.	1
25+23.18	47.00'	Rt.	1
25+77.65	47.00'	Rt.	1
27+71.87	47.00'	Lt.	1
28+60.73	47.00'	Lt.	1
29+80.47	47.00'	Rt.	1
30+30.95	47.00'	Rt.	1
30+91.78	47.00'	Rt.	1
31+36.27	47.00'	Rt.	1
34+25.46	47.00'	Lt.	1
34+31.90	47.00'	Rt.	1
35+24.23	47.00'	Rt.	1
35+27.58	47.00'	Lt.	1
35+34.81	44.00'	Lt.	1
35+34.82	44.00'	Rt.	1
40+98.76	47.00'	Rt.	1
41+77.92	47.00'	Rt.	1
45+70.10	64.53'	Lt.	1
46+18.21	60.19'	Rt.	1
46+39.54	64.03'	Lt.	1
48+00.50	85.02'	Lt.	1
TOTALS (EA.)			26

FENCE REMOVED

STATION to STATION		SIDE	LENGTH (FT)
28+46.10	29+26.47	Lt.	100.2
27+74.49	27+82.48	Lt.	17.6
33+07.67	34+44.44	Rt.	168.3
40+63.58	40+99.61	Rt.	54.4
38+07.39	39+10.63	Rt.	103.2
39+43.95	39+58.69	Rt.	21.0
39+58.69	40+32.26	Rt.	83.0
TOTALS (L.F.)			547.7

REMOVAL OF EXISTING STRUCTURES
(FOR INFORMATION ONLY)

STATION	LOCATION	DESCRIPTION
20+91.97 to 21+15.88	Rt.	Exist. Retaining Wall
22+21.75	Rt.	Exist. Curb Inlet
22+23.43	Lt.	Exist. Curb Inlet
22+24.36	Lt.	Exist. Reinforced Manhole
25+30.19	Lt.	Exist. Curb Inlet
25+30.57	Rt.	Exist. Grate Inlet
27+92.60	Lt.	Exist. Curb Inlet
28+40.51	Lt.	Exist. Curb Inlet
28+50.13	Rt.	Exist. Curb Inlet
28+50.57	Lt.	Exist. Curb Inlet
30+50.55	Rt.	Exist. Grate Inlet
30+51.81	Lt.	Exist. Curb Inlet
33+70.99	Lt.	Exist. Curb Inlet
33+73.27	Rt.	Exist. Curb Inlet
34+46.34	Lt.	Exist. Reinforced Manhole
34+46.49	Lt.	Exist. Reinforced Manhole
34+61.97	Rt.	Exist. Curb Inlet
34+97.24	Rt.	Exist. Curb Inlet
35+19.08	Lt.	Exist. Curb Inlet
38+71.07	Rt.	Exist. Curb Inlet
38+63.87	Lt.	Exist. Curb Inlet
39+87.19	Rt.	Exist. Area Inlet
41+16.34	Rt.	Exist. Curb Inlet
41+42.99	Rt.	Exist. Reinforced Manhole
41+64.73	Rt.	Exist. Curb Inlet
45+63.56	Lt.	Exist. Curb Inlet
46+15.64	Rt.	Exist. Drop Inlet
46+19.39	Rt.	Exist. Curb Inlet
18+49.66	Rt.	Traffic Loop Detector MH
19+75.38	Rt.	Traffic Loop Detector MH
22+92.22	Lt.	Traffic Loop Detector MH
24+26.90	Lt.	Traffic Loop Detector MH
46+45.77	Lt.	KDOT Fence Footing
47+38.65	Lt.	KDOT Fence Footing
44+73.29	Rt.	Steel Bollard
44+73.39	Rt.	Steel Bollard
Project Wide	-	Signs and Post Footings

FENCE, CHAIN LINK (4'-0")

STATION to STATION		SIDE	LENGTH (FT)
46+65.78	47+09.53	Lt.	43.7
47+09.53	47+54.62	Lt.	46.1
47+54.62	47+98.38	Lt.	51.1
TOTALS (L.F.)			140.9

CONCRETE C&G, COMB. TYPE I (6" & I-1/2")

STATION to STATION		SIDE	LENGTH (FT)
19+18.30	21+21.82	Lt.	208.8
19+25.23	21+30.46	Rt.	214.8
21+85.91	27+45.96	Lt.	565.7
21+81.17	33+96.13	Rt.	1225.0
27+95.91	27+95.73	Lt.	25.0
28+36.60	28+36.65	Lt.	25.0
28+86.64	33+96.13	Lt.	509.5
34+56.19	34+56.03	Lt.	25.0
34+62.58	34+62.53	Rt.	18.0
34+62.40	34+62.35	Rt.	60.4
34+95.80	34+93.55	Rt.	18.5
34+96.29	34+96.88	Lt.	90.7
35+53.55	40+72.86	Rt.	519.3
35+56.88	45+83.96	Lt.	1060.4
41+22.86	41+22.99	Rt.	25.0
41+53.99	41+53.82	Rt.	47.5
42+03.82	46+35.80	Rt.	500.9
46+25.41	46+75.35	Lt.	73.1
46+81.21	46+83.90	Rt.	62.8
47+96.15	48+09.08	Lt.	18.0
100+70.96	101+45.89	Lt.	126.8
TOTALS (L.F.)			5420.2

TREE REMOVED, SMALL

STATION	OFFSET	SIDE
28+43.75	80.90'	Lt.
28+43.13	74.68'	Lt.
28+42.96	66.20'	Lt.
28+43.23	55.55'	Lt.
28+47.20	41.20'	Lt.
39+72.12	92.21'	Rt.
40+01.58	36.08'	Rt.
40+19.62	33.43'	Rt.
40+78.08	33.37'	Rt.
TOTALS (EA.)		9

POSTS (CORNER) (CHAIN LINK)

STATION	OFFSET	SIDE
47+09.53	59.92'	Lt.
47+54.62	69.53'	Lt.
TOTALS (EA.)		2

POSTS (END) (CHAIN LINK)

STATION	OFFSET	SIDE
46+65.78	59.98'	Lt.
TOTALS (EA.)		2

†TEMPORARY SWS CONNECTION SUMMARY
(FOR INFORMATION ONLY)

STATION	TYPE	SIZE OR BID DESIGNATION	LENGTH OF PIPE LN. FT.	REMARKS
22+21.96	RCP	15"	5.3	Concrete Collar
33+74.25	CMP	15"	10.1	Coupling and pipe rotation
34+46.48	CMP	15"	11.2	Coupling and pipe rotation
38+70.17	RCP	18"	7.0	Concrete Collar and pipe rotation

†All pipe, material, labor, and equipment needed to connect the existing pipe to the proposed inlet shall be considered SUBSIDIARY to the bid item "Temporary SWS Connection".

CONCRETE EDGE CURB (8")

STATION to STATION		SIDE	LENGTH (FT)
20+92.58	21+15.71	Rt.	35.0
21+99.84	24+39.11	Rt.	239.7
25+35.86	26+02.99	Lt.	67.1
26+82.94	27+03.35	Lt.	20.4
37+67.40	38+66.00	Lt.	100.8
39+50.41	40+28.06	Lt.	79.2
40+92.45	41+07.61	Lt.	16.2
46+47.95	46+65.91	Lt.	25.3
46+72.32	47+63.94	Lt.	92.8
47+09.53	47+54.54	Lt.	46.0
TOTALS (L.F.)			722.5

†CONCRETE PAVEMENT (4")

STATION to STATION		WIDTH (FT)	S.Y.
45+01.35	46+05.11	Varies	54.4
TOTALS (S.Y.)			54.4

†Red Stamped Concrete between the Berry Tractor Parking Lot curb and gutter and the back of the retainining wall. The red stamped concrete shall be Charcoal Red and stamped in a Herringbone Pattern

◔FILL, FLOWABLE

STATION to STATION		WIDTH (FT)	C.Y.
45+01.35	46+05.11	Varies	12.1
TOTALS (C.Y.)			12.1

◔Flowable fill shall be placed below the 4" Red Stamped Concrete at a thickness of approx. 8".

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245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
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CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

SUMMARY OF QUANTITIES

SHEET NO.
62
SHEET 62 OF 262

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

CONCRETE PAVEMENT (VG)(8")(REINFORCED)

STATION	SIDE	WIDTH (FT)	S.Y.
28+16.30	Lt.	Varies	384.2
34+76.82	Lt.	Varies	489.4
34+78.13	Rt.	Varies	426.2
41+38.34	Rt.	Varies	327.6
TOTALS (S.Y.)			1627.4

CONCRETE DRIVEWAY 8" REINFORCED

STATION	SIDE	WIDTH (FT)	S.F.
19+94.30	Lt.	30.0	647.1
20+11.91	Rt.	40.0	816.0
24+87.97	Lt.	49.0	1319.7
25+50.42	Rt.	31.0	708.4
26+42.97	Lt.	50.0	2190.8
29+63.71	Lt.	17.0	158.0
30+05.71	Rt.	35.0	778.4
31+02.36	Lt.	30.0	571.1
31+14.00	Rt.	29.0	807.0
31+95.54	Lt.	30.0	789.4
32+35.29	Rt.	30.0	746.5
32+62.94	Lt.	30.3	1351.2
34+37.31	Rt.	31.0	818.8
35+43.04	Lt.	30.0	1439.8
35+98.75	Lt.	15.0	553.9
36+03.22	Rt.	30.0	953.4
36+47.97	Lt.	24.0	566.6
37+41.91	Rt.	30.0	628.5
37+53.39	Lt.	28.0	1019.5
38+47.82	Rt.	30.0	1052.0
39+06.24	Lt.	31.0	651.9
39+98.04	Rt.	30.0	5603.9
41+23.95	Lt.	27.0	593.0
41+74.01	Rt.	24.0	523.0
42+94.67	Rt.	33.0	686.4
43+29.53	Lt.	30.0	644.2
43+87.72	Rt.	24.7	643.2
44+88.44	Rt.	24.0	1080.7
44+92.90	Lt.	30.0	511.3
46+18.99	Rt.	18.1	310.8
46+98.96	Rt.	24.0	476.2
TOTALS (S.F.)			29640.7

CONCRETE PAVEMENT (9")(REINFORCED)

STATION to STATION		WIDTH (FT)	S.Y.
20+83.60	22+23.43	Varies	1172.0
33+96.13	35+56.88	60.0	1071.7
45+33.97	46+75.35	Varies	1871.7
100+68.39	101+45.89	Varies	79.3
TOTALS (S.Y.)			4194.7

CONCRETE PAVEMENT (9")(NRDJ)

STATION to STATION		WIDTH (FT)	S.Y.
19+38.28	20+83.60	60.0	969.3
22+23.43	33+96.13	60.0	7818.7
28+16.30	28+16.30	35.7	99.1
34+78.13	34+78.13	25.8	51.7
35+56.88	45+33.97	Varies	6631.9
46+58.21	46+58.47	40.3	113.3
TOTALS (S.Y.)			15684.0

AC PAVEMENT 7" (5" BIT. BASE)

STATION to STATION		LENGTH (FT)	WIDTH (FT)	S.Y.
19+18.29	19+38.28	20.0	Varies	133.8
TOTALS (S.Y.)				133.8

*AC PAVEMENT 5"

STATION to STATION		LENGTH (FT)	WIDTH (FT)	S.Y.
34+76.60	34+76.42	25.0	35.7	99.2
41+38.34	41+38.42	25.0	26.0	72.2
46+04.71	46+04.66	28.7	36.2	115.8
TOTALS (S.Y.)				287.2

*Sideroad Transitions

*CRUSHED ROCK BASE 5" REINFORCED

STATION to STATION		LENGTH (FT)	WIDTH (FT)	S.Y.
34+76.60	34+76.42	25.0	35.7	99.2
41+38.34	41+38.42	25.0	26.0	72.2
46+04.71	46+04.66	28.7	36.2	115.8
TOTALS (S.Y.)				287.2

*Sideroad Transitions

CRUSHED ROCK BASE 6" REINFORCED

STATION to STATION		LENGTH (FT)	WIDTH (FT)	S.Y.
19+38.28	46+75.35	2737.1	Varies	21573.7
28+16.30	28+16.30	25.0	42.7	118.9
34+63.15	34+63.10	60.4	3.5	23.5
34+78.13	34+78.13	18.0	Varies	66.2
34+96.13	34+95.43	90.7	3.5	35.3
41+23.61	41+23.65	25.0	3.5	9.7
41+53.07	41+53.21	47.5	3.5	18.5
47+09.37	47+54.38	46.0	3.5	17.9
47+96.58	48+09.80	18.7	3.5	7.1
100+68.39	101+45.89	77.5	Varies	129.1
TOTALS (S.Y.)				21999.9

CRUSHED ROCK BASE 7" REINFORCED

STATION	SIDE	LENGTH (FT)	WIDTH (FT)	S.Y.
28+16.30	Lt.	Varies	Varies	401.5
34+76.82	Lt.	Varies	Varies	510.2
34+78.13	Rt.	Varies	Varies	447.6
41+38.34	Rt.	Varies	Varies	344.9
TOTALS (S.Y.)				1704.2

CRUSHED ROCK BASE 8" REINFORCED

STATION to STATION		LENGTH (FT)	WIDTH (FT)	S.Y.
19+18.29	19+38.28	20.0	Varies	133.8
TOTALS (S.Y.)				133.8

SUMMARY OF REMOVAL

STATION to STATION		PAVEMENT REMOVED (S.Y.)	SIDEWALK REMOVED (S.Y.)	CONCRETE C&G (L.F.)
19+18.29	48+11.18	23354.4	602.4	3809.3
100+68.39	101+45.89	13.3	-	121.1
TOTALS		23367.7	602.4	3930.6

CONCRETE SIDEWALK 4"

STATION to STATION		SIDE	LENGTH (FT)	WIDTH (FT)	S.F.
19+38.28	19+79.18	Lt.	40.9	6.0	245.3
19+32.59	19+91.95	Rt.	59.4	6.0	353.3
20+09.43	21+08.33	Lt.	98.9	6.0	593.6
20+31.86	21+18.67	Rt.	86.8	6.0	845.7
21+96.70	25+23.18	Rt.	326.5	6.0	1964.5
21+99.38	24+63.48	Lt.	264.1	6.0	1584.8
25+12.46	26+17.99	Lt.	105.5	6.0	644.4
25+77.65	29+80.47	Rt.	402.8	6.0	2416.9
26+67.94	27+71.87	Lt.	103.9	6.0	629.9
28+60.73	29+55.23	Lt.	94.5	6.0	339.4
30+30.95	30+91.78	Rt.	60.8	6.0	365.0
31+17.16	31+80.61	Lt.	63.5	6.0	248.2
31+36.27	32+20.41	Rt.	84.1	6.0	504.9
32+10.46	32+47.80	Lt.	37.3	6.0	224.1
32+50.16	34+31.90	Rt.	181.7	6.0	1090.4
32+78.08	34+25.46	Lt.	147.4	6.0	884.3
35+24.23	35+88.25	Rt.	64.0	6.0	384.2
35+27.58	35+91.35	Lt.	63.8	6.0	382.6
36+06.16	36+36.05	Lt.	29.9	6.0	179.3
36+18.18	37+26.93	Rt.	108.8	6.0	652.5
36+59.88	37+39.40	Lt.	79.5	6.0	477.1
37+56.90	38+32.81	Rt.	75.9	6.0	455.4
37+67.38	38+87.18	Lt.	119.8	6.0	579.7
39+25.37	41+10.37	Lt.	185.0	6.0	997.6
38+62.81	39+82.94	Rt.	120.1	6.0	720.8
40+13.14	40+98.76	Rt.	85.6	6.0	513.7
41+37.54	43+14.56	Lt.	177.0	6.0	1062.2
41+77.92	42+78.12	Rt.	100.2	6.0	601.2
43+11.21	43+51.20	Rt.	40.0	6.0	254.7
43+44.50	44+77.90	Lt.	133.4	6.0	800.4
45+07.90	45+70.10	Lt.	62.2	6.0	417.1
TOTALS (S.F.)					21413.1

CONCRETE SIDEWALK 4" THICKENED EDGE

STATION to STATION		SIDE	LENGTH (FT)
29+13.73	31+48.39	Lt.	193.1
38+60.71	39+50.55	Lt.	55.0
43+50.35	46+12.85	Rt.	179.0
46+37.04	47+96.15	Lt.	168.3
TOTALS (L.F.)			595.4

RETAINING WALL

STATION to STATION		SIDE	S.F.F.
27+03.35	27+84.60	Lt.	163.1
28+46.64	29+14.85	Lt.	85.4
40+28.06	40+92.45	Lt.	77.7
45+13.76	45+86.92	Rt.	160.5
TOTALS (S.F.F.)			486.7

MAILBOX, REMOVED & RESET

STATION	OFFSET	SIDE
33+59.58	25.93'	Lt.
35+82.37	24.98'	Lt.
35+86.18	25.56'	Lt.
TOTALS (EA.)		3

EARTHWORK

STATION to STATION	EXCAVATION			COMPACTION
	COMMON		CONTR. FURN.	FILL, 95% DENSITY
	CU.YDS.	VMF	CU.YDS.	C.Y.
19+18.28 - 48+11.18	6167.4	0.85		126.5
100+68.39 - 101+45.89	70.5	0.85		-
TOTALS	6237.9	0.85		126.5

RECAPITULATION OF QUANTITIES

ITEM	QUANTITY	UNIT
Mobilization	1	LSUM
Site Clearing	1	LSUM
Site Restoration	1	LSUM
Field Office & Laboratory (Type A)	1	EA.
Removal of Existing Structures	1	LSUM
Pavement Removed	23368	S.Y.
Concrete Sidewalk Removed	602	S.Y.
Concrete C & G Removed	3931	L.F.
Fence Removed	548	L.F.
Excavation, Common	6238	C.Y.
Fill, Compacted (95% Density)	127	C.Y.
AC Pavement 5"	287	S.Y.
AC Pavement 7" (5" Bit. Base)	134	S.Y.
Concrete Driveway 8"	29641	S.F.
Crushed Rock Base 5", Reinforced	287	S.Y.
Crushed Rock Base 6", Reinforced	22000	S.Y.
Crushed Rock Base 7", Reinforced	1704	S.Y.
Crushed Rock Base 8", Reinforced	134	S.Y.
Retaining Wall	486	S.F.F.
Concrete Pavement (VG) 8" (Reinf)	1627	S.Y.
Concrete Pavement 9" (NRDJ)	15684	S.Y.
Concrete Pavement 9" (Reinforced)	4195	S.Y.
Concrete Pavement 4"	54	S.Y.
Fill, Flowable	12	C.Y.
Concrete Sidewalk 4"	21413	S.F.
Concrete Sidewalk 4" - Thickened Edge	595	L.F.
Concrete C & G, Type I (6" & 1 1/2")	5420	L.F.
Wheelchair Ramp w/ Detectable Warnings	26	EA.
AC Pavement 6" (4" Bit. Base)(w/ 5" Crushed Rock Base), Temporary Widening	200	S.Y.
AC Pavement 6", Temporary (Utility Patch)	300	S.Y.
AC Pavement 6", Temporary (Phase Shifts)	200	TON
Fence (Temporary Construction)	200	L.F.
Temporary Surfacing Material (Aggregate)	1200	TON
Concrete Edge Curb (8")	723	L.F.
MH Adjusted (Traffic)	1	EA.
MH Adjusted (SS)	1	EA.
Valve Box Adjusted	1	EA.
Water Meter Adjusted	1	EA.
Mailbox, Removed and Reset	3	EA.
Fence, Chain Link (4'-0")	141	L.F.
Posts (Corner) (Chain Link)	2	EA.
Posts (End) (Chain Link)	1	EA.
Abandoned Gas Pipeline Removal	1500	L.F.
Pipe, Removed	685	L.F.
Pipe, Abandon in Place	188	L.F.
Pipe, SWS 15"	62	L.F.
Pipe, SWS 18"	1316	L.F.
Pipe, SWS 24"	473	L.F.
Pipe, SWS 36"	7	L.F.
Pipe, SWS 42"	7	L.F.
Pipe, SWS 54"	14	L.F.
Pipe, SWS 60"	70	L.F.
Pipe, SWS HERCP (14"x23")(18)	839	L.F.
Pipe, SWS HERCP (19"x30")(24)	237	L.F.
Pipe, SWS HERCP (24"x38")(30)	53	L.F.
Inlet, Curb (Type 2)(Special)(L=6.2')(W=7.5')	4	EA.
Inlet, Curb (Type 2)(Special)(L=6.2')(W=9.5')	4	EA.
Inlet, Curb (Type 2)(Double)(L=6.3')(W=3.3')	8	EA.
MH, Reinforced Concrete (L=4.0')(W=4.0')	2	EA.
MH, Reinforced Concrete (L=5.0')(W=3.0')	1	EA.
MH, Reinforced Concrete (L=5.5')(W=5.0')	2	EA.
MH, Reinforced Concrete (L=5.0')(W=5.0')	1	EA.
MH, Reinforced Concrete (L=8.0')(W=5.0')	1	EA.
MH, Reinforced Concrete (L=7.0')(W=4.0')	1	EA.
MH, Reinforced Concrete (L=5.0')(W=7.0')	1	EA.
MH, Reinforced Concrete (L=8.0')(W=6.0')	1	EA.
MH, Reinforced Concrete (L=11.0')(W=6.0')	1	EA.
MH, Reinforced Concrete (L=8.5')(W=7.5')	1	EA.
MH, Reinforced Concrete (L=9.0')(W=7.0')	1	EA.
MH, Reinforced Concrete (L=9.0')(W=7.5')	1	EA.
Inlet, Curb (Type I)(L=10.0' W=3.0')	5	EA.
Inlet, Curb (Type I)(L=10.0' W=4.0')	9	EA.
Inlet, Curb (Type I)(L=10.0' W=6.0')	1	EA.
Inlet, Curb (Type IA)(L=10.0' W=3.0')	2	EA.
Inlet, Curb (Type IA)(L=10.0' W=4.0')	7	EA.
Inlet, Curb (Type IA)(L=15.0' W=4.0')	2	EA.
Inlet, Grated Driveway, Double	2	EA.
Inlet, Drop (Single)	1	EA.
Inlet, Area (Back Yard)	2	EA.
Fill, Sand (Flushed & Vibrated)(SWS)	3078	L.F.
Fill, Sand (Flushed & Vibrated)(SWS Removal)	685	L.F.
Inlet Hookup	31	EA.
Inlet Underdrain	670	L.F.
MH Adjusted, SWS	1	EA.
Inlet Adjusted	1	EA.
Temporary SWS Connections	1	LSUM

See Sheet 210 for Communication Duct Bank Quantities
See Sheet 216 for Sanitary Sewer Quantities
See Sheet 221 for Water Line Quantities

RECAPITULATION OF QUANTITIES (CONT.)

ITEM	QUANTITY	UNIT
Traffic Control	1	LSUM
Pavement Markings	1	LSUM
Traffic Signalization (Walker Street)	1	LSUM
Traffic Signalization (Harry Street)	1	LSUM
Traffic Signalization, Temporary (Walker Street)	1	LSUM
Traffic Signalization, Temporary (Harry Street)	1	LSUM
Signing	1	LSUM
Sign, Electric Portable Message	100	DAY
Seeding	1	LSUM
Seeding, Temporary	1	LSUM
Sodding	1	LSUM
Tree Removed - Small	9	EA.
BMP, Back of Curb Protection	3759	L.F.
BMP, Curb Inlet Protection	28	EA.
BMP, Drop Inlet Protection	2	EA.
BMP, Storm Water Quality Device	2	EA.
Transportation of Salvaged Material	1	LSUM

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
		DATE	DESCRIPTION
MARK			

PROJ NO: 472-85296
SCALE: N/A
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

SUMMARY OF QUANTITIES

SHEET NO.

63

SHEET 63 OF 262

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LEGEND

PHASE 1
PHASE 2a
PHASE 2b
PHASE 2c
PHASE 3a
PHASE 3b
PHASE 3c
PHASE 4a
PHASE 4b

Phase 1

Phase 1 construction shall close the inside lanes of both north and south bound West Street to install the proposed water main and the connections crossing West Street. This phase shall also construct the corner widening improvements on the northwest corner of Walker Street and McComas Street and remove the existing curb and gutter and construct temporary pavement for truck turning movements on the southeast and northeast corners of Walker Street and Irving Street. Major items of work include but are not limited to water line installation and removal, sanitary sewer installation, concrete pavement, curb and gutter, temporary asphalt pavement, grading, and seeding.

Phase 2a

Phase 2a construction shall close the west side of West Street from the centerline of Harry Street to approx. 180' south of the east leg of Irving Street. Head to head traffic shall be maintained through construction on the existing northbound lanes of West Street. Construction at the Walker Street and West Street intersection shall be completed prior to starting construction at the Harry Street and West Street intersection. During the construction of Walker Street, Harry Street shall remain open to full traffic. The Contractor shall minimize the time of construction within Harry Street and upon completion shall open the road up to full movements. Major items of work include but are not limited to concrete pavement, curb and gutter, sidewalk construction, storm sewer, pavement marking and signing, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

Phase 2b

Phase 2b construction shall close the south bound lanes of West Street from Harry Street to the south end of the project. Head to head traffic shall be maintained through construction on the existing northbound lanes on West Street. Eastbound traffic on Harry Street will be closed during construction through the intersection. Major items of work include but are not limited to ashpalt pavement, concrete pavement, curb and gutter, sidewalk construction, driveway construction, storm sewer, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

Phase 2c

Phase 2c construction shall construct the west side of West Street from the north project limits to approx. 180' south of Irving Street. Head to head traffic shall be maintained throughout the duration of construction on the existing northbound lanes of West Street. Two way traffic shall be maintained through construction on the existing northbound lanes on West Street. Major items of work include but are not limited to concrete pavement, curb and gutter, sidewalk construction, storm sewer, pavement marking and signing, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

Phase 3a

Phase 3a construction shall construct the intersection of Irving Street and approx. 190' south to a transverse joint and north to the project limits. This phase will also construct the intersection of West Street and McCormick Street. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at both Walker Street and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

Phase 3b

Phase 3b construction shall construct the intersection of Walker Street and approx. 190' north to a transverse joint that was constructed in Phase 3a and south to the intersection of Harry Street. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at both Walker Street and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

Phase 3c

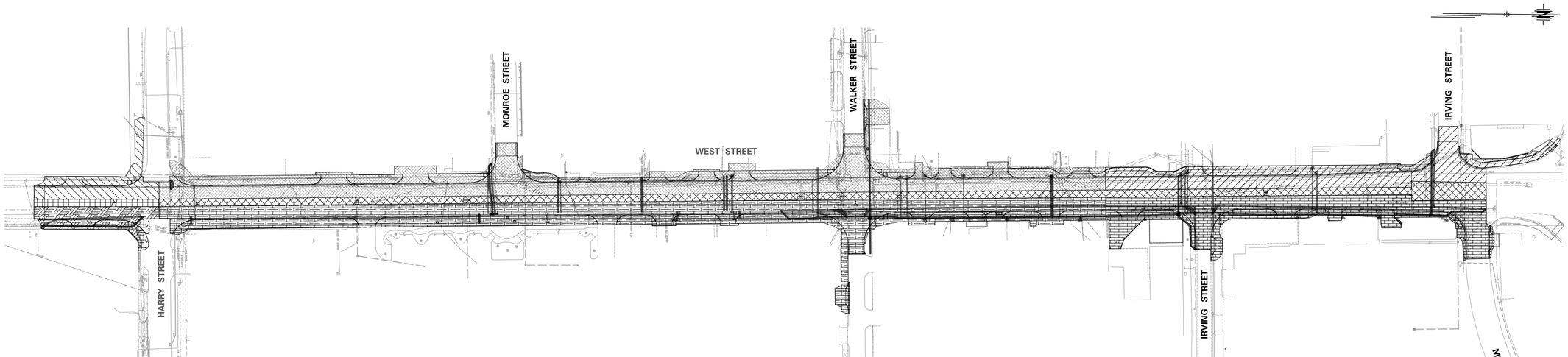
Phase 3c construction shall construct from the center line of Harry Street south to the south project limits. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

Phase 4a

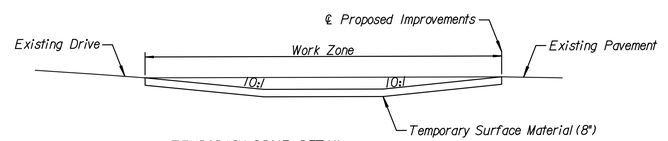
Phase 4a construction shall close the inside lanes of West Street from south of Harry Street to north project limits. Two way traffic shall be maintained through construction on the outside lanes paved in Phase 2 and 3. Construction at the Walker Street and West Street Intersection shall be completed and opened to traffic before starting construction at the Irving Street and West Street Intersection. Major items of work include but are not limited to concrete pavement and permanent signal installation.

Phase 4b

Phase 4b construction shall close the inside lanes of West Street from south of Harry Street to north project limits. Two way traffic shall be maintained through construction on the outside lanes paved in Phase 2 and 3. Construction at the Walker Street and West Street Intersection shall be completed and opened to traffic before starting construction at the Irving Street and West Street Intersection. Major items of work include but are not limited to concrete pavement and permanent signal installation.



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



TEMPORARY DRIVE DETAIL

The Contractor shall provide temporary access during construction and only close drives/entrances to businesses, residences, and sideroads during the time improvements are being made.

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SUITE 222
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
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SHEET TITLE:

CONSTRUCTION PHASING OVERVIEW

SHEET NO.

64

SHEET 64 OF 262

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

LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

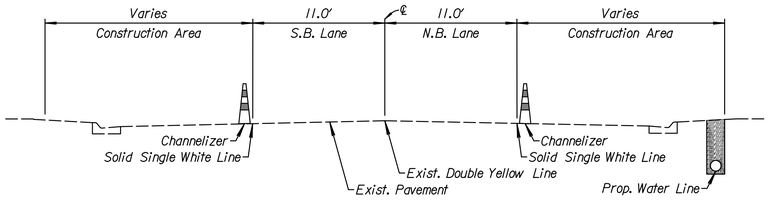
One (1) week prior to construction, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that construction will be commencing on specified date and lanes will be reduced during construction.

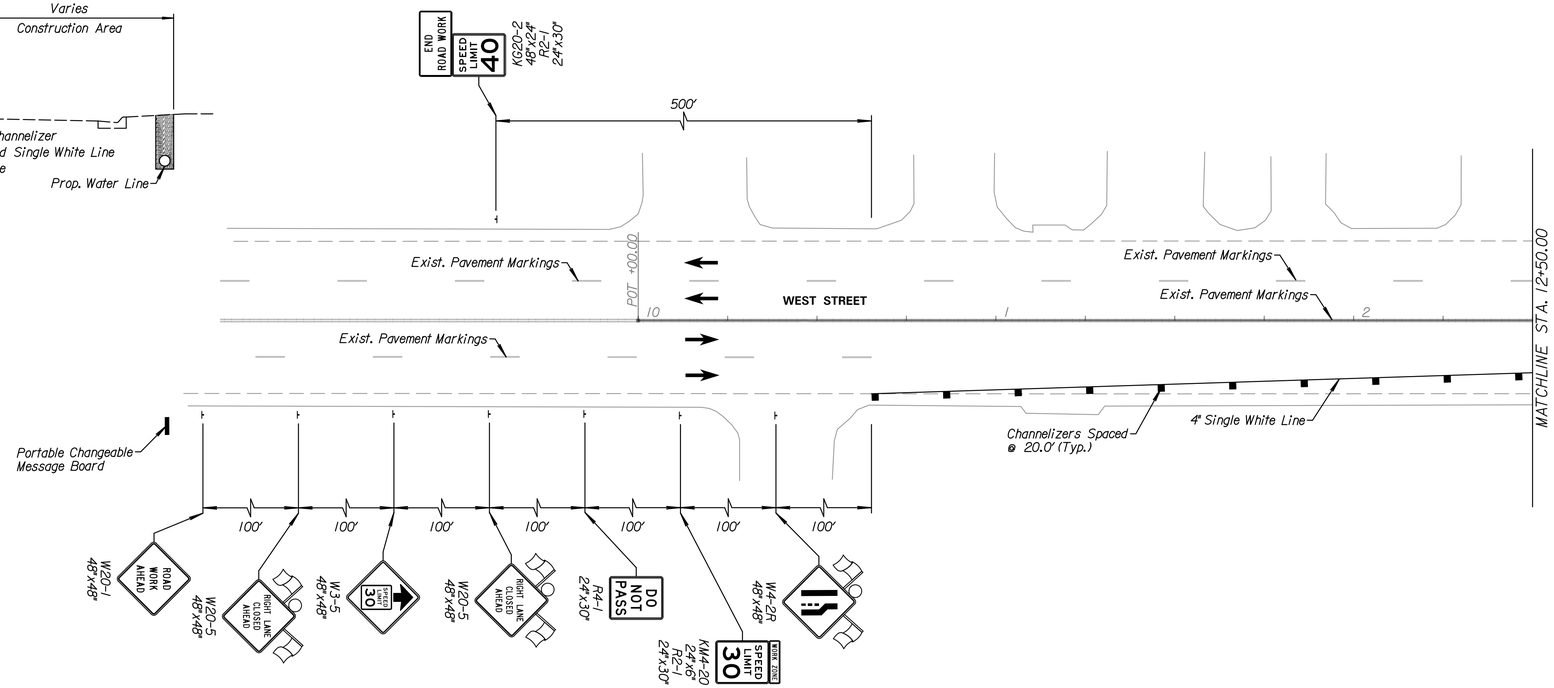
Phase I

Phase I construction shall close the inside lanes of both north and south bound West Street to install the proposed water main and the connections crossing West Street. This phase shall also construct the corner widening improvements on the northwest corner of Walker Street and McComas Street and remove the existing curb and gutter and construct temporary pavement for truck turning movements on the southeast and northeast corners of Walker Street and Irving Street. Major items of work include but are not limited to water line installation and removal, concrete pavement, curb and gutter, temporary asphalt pavement, grading, and seeding.

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

Typical Section Phase I





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FAX: 316-462-5629

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FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.
65
SHEET 65 OF 262

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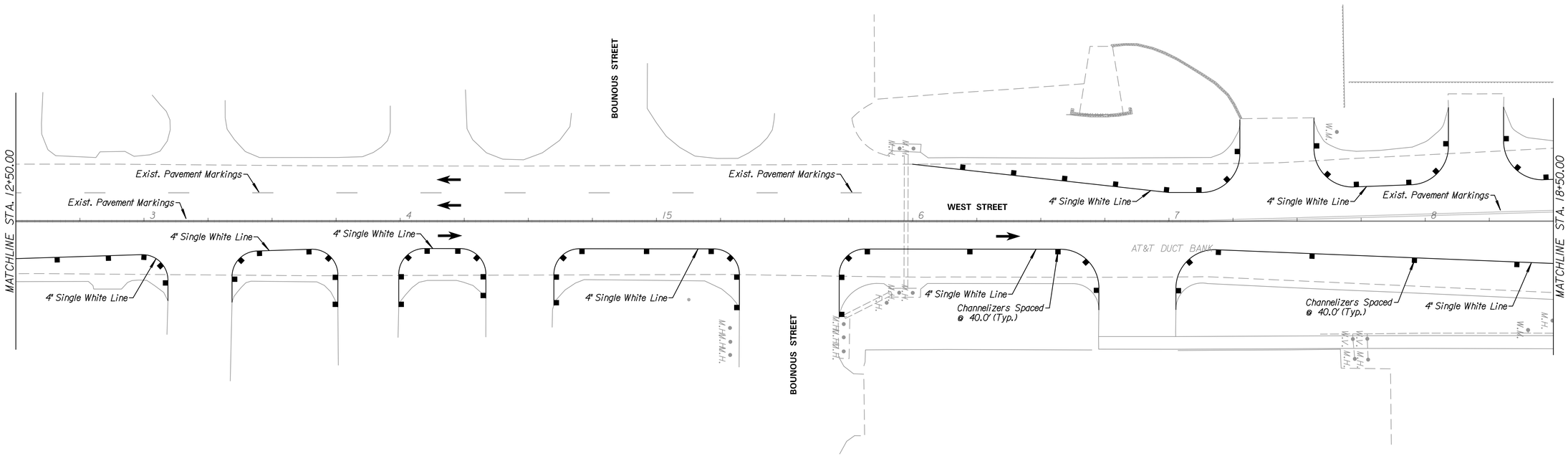
LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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FROM HARRY TO KELLOGG

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SHEET NO.

66

SHEET 66 OF 262

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LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

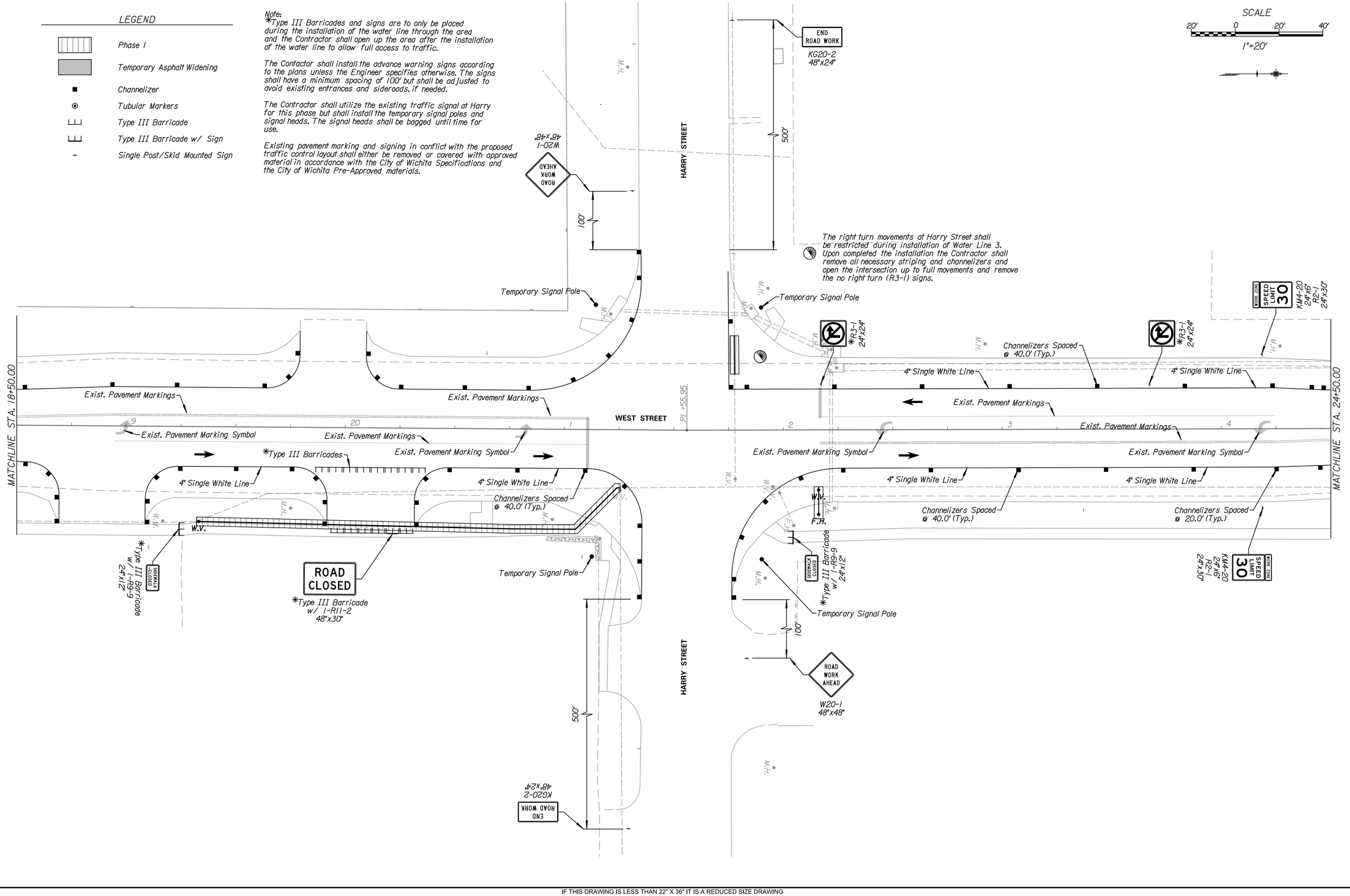
Note:

*Type III Barricades and signs are to only be placed during the installation of the water line through the area and the Contractor shall open up the area after the installation of the water line to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

The Contractor shall utilize the existing traffic signal at Harry for this phase but shall install the temporary signal poles and signal heads. The signal heads shall be bagged until time for use.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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SHEET NO.

67

SHEET 67 OF 262

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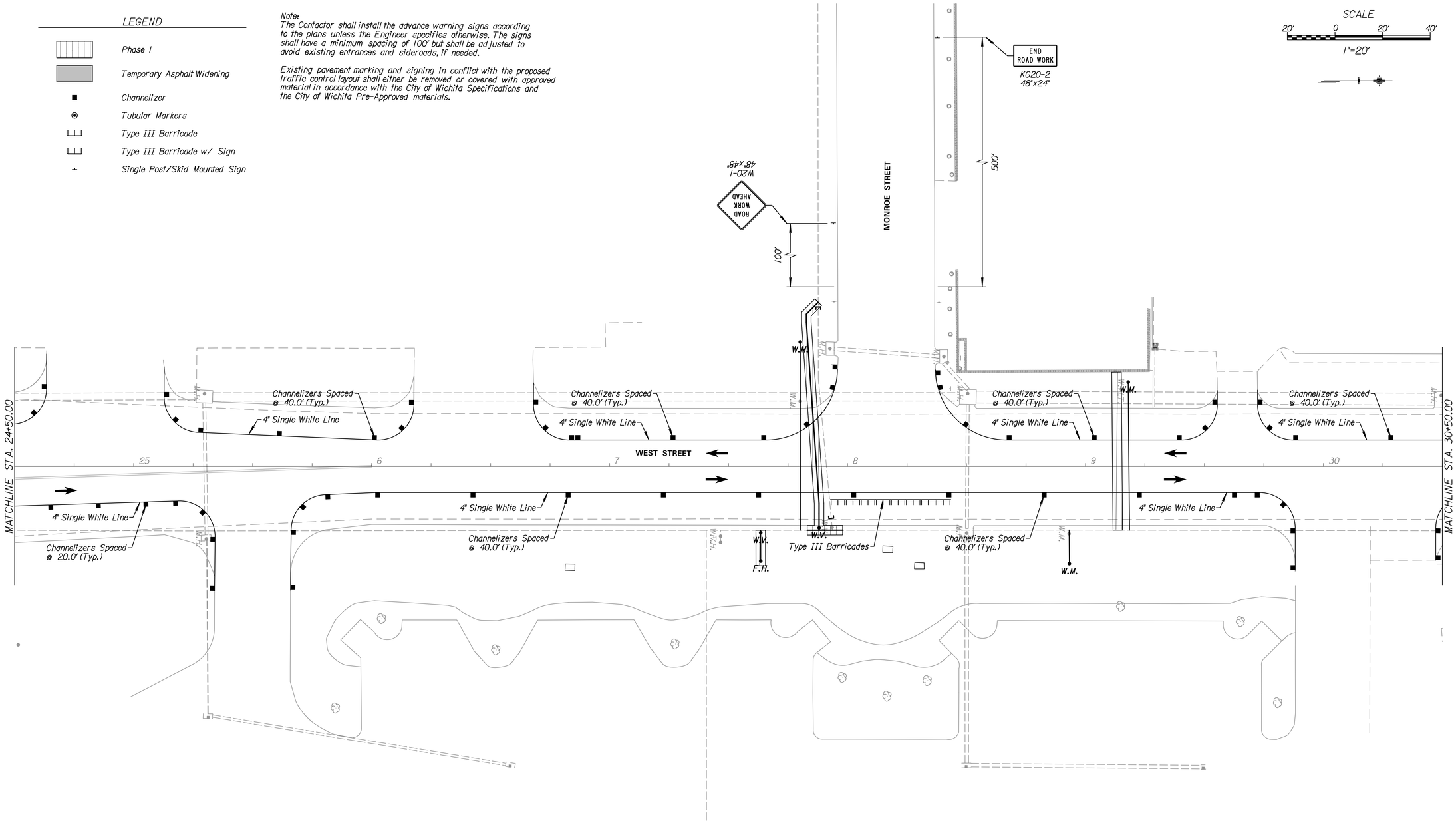
LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.

68

SHEET 68 OF 262

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LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the installation of the water line through the area and the Contractor shall open up the area after the installation of the water line to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 161

The Contractor shall maximize the southeast and northeast corners of Walker Street and Harry Street to account for truck turning movements, while construction is not in the immediate area.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

MATCHLINE STA. 30+50.00

Channelizers Spaced @ 40.0' (Typ.)
4" Single White Line
Type III Barricades
*Type III Barricades
ROAD CLOSED
Type III Barricade w/ I-R11-2 48"x30"
*Type III Barricade w/ I-R11-2 48"x30"
W.M.
W.V.
F.H.

WEST STREET

Temporary Signal Pole
W20-1 48"x48" ROAD WORK AHEAD
100'
END ROAD WORK KG20-2 48"x24"
500'
WALKER STREET
Remove 47.0 L.F. of Curb and Gutter
Const. 24.6 S.Y. of Temporary Asphalt Widening
The Contractor shall close Walker Street to install the water line across Walker Street. At no time shall the Contractor have Walker Street and Irving Street closed at the same time. Only one (1) street shall be closed at a time to allow full access to trucks and deliveries.
Remove 29.2 L.F. of Curb and Gutter
Const. 10.3 S.Y. of Temporary Asphalt Widening
ROAD WORK AHEAD W20-1 48"x48"
END ROAD WORK KG20-2 48"x24"
Pl +76.85
MATCHLINE STA. 36+50.00

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WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 1

SHEET NO.
69
SHEET 69 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the installation of the water line through the area and the Contractor shall open up the area after the installation of the water line to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

The Contractor shall maximize the southeast and northeast corners of Walker Street and Harry Street to account for truck turning movements, while construction is not in the immediate area.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

SCALE
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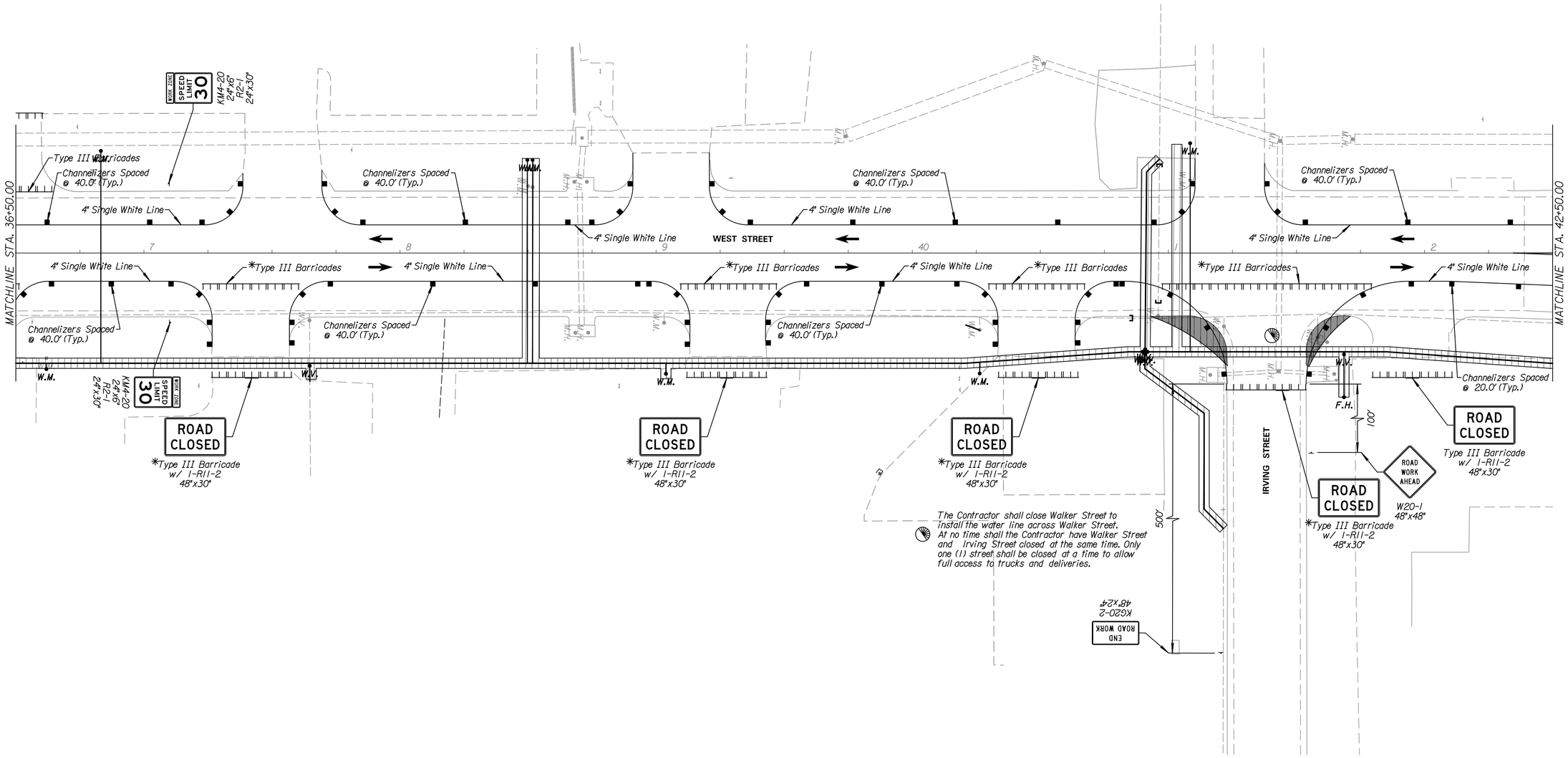
1"=20'



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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

City of WICHITA

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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.
70
SHEET 70 OF 262

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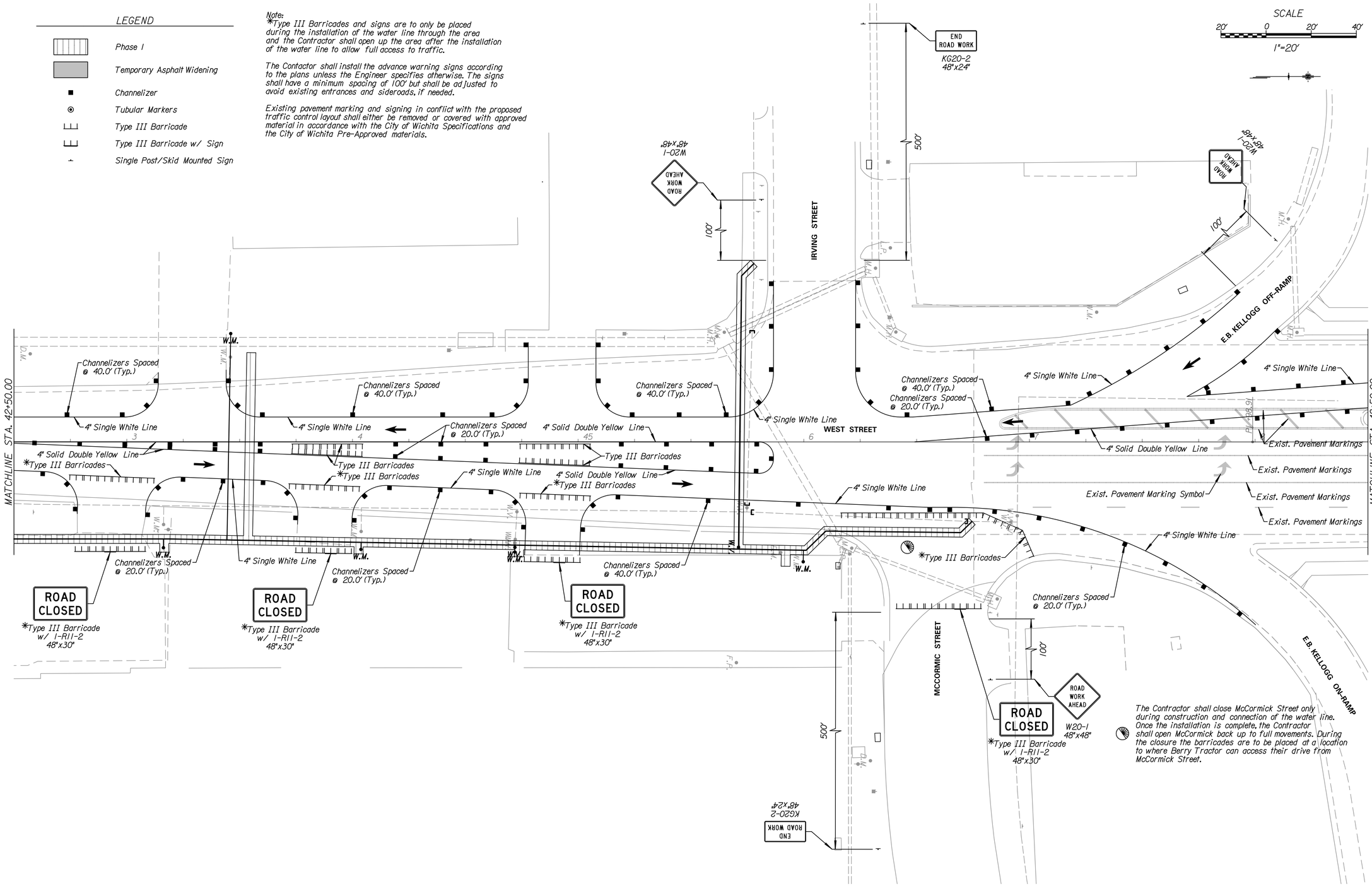
LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the installation of the water line through the area and the Contractor shall open up the area after the installation of the water line to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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WICHITA, KANSAS

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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.

71

SHEET 71 OF 262

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LEGEND

- Phase I
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- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

SCALE
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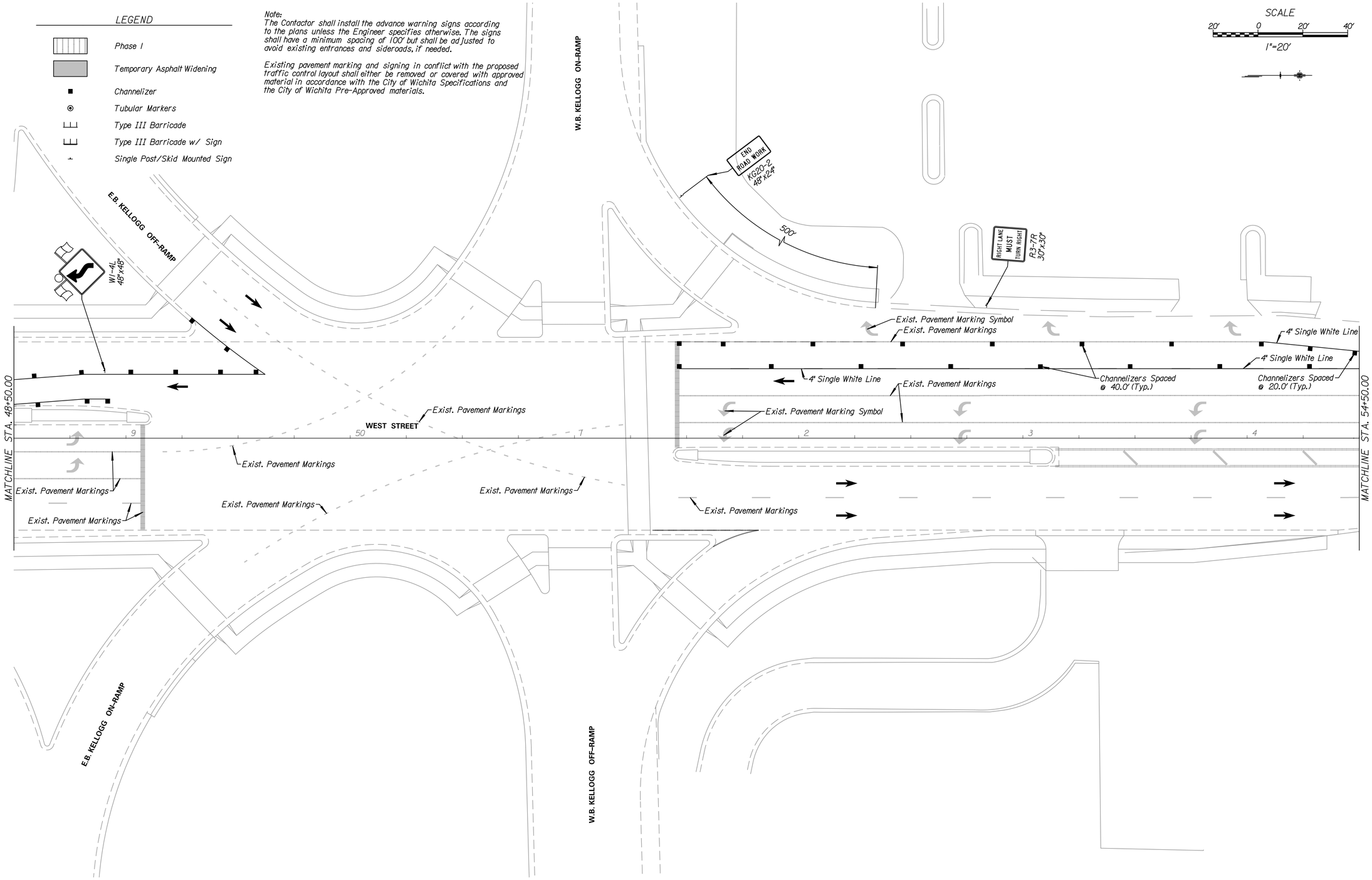
1"=20'



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WEST STREET IMPROVEMENTS
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CITY OF WICHITA

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72
SHEET 72 OF 262

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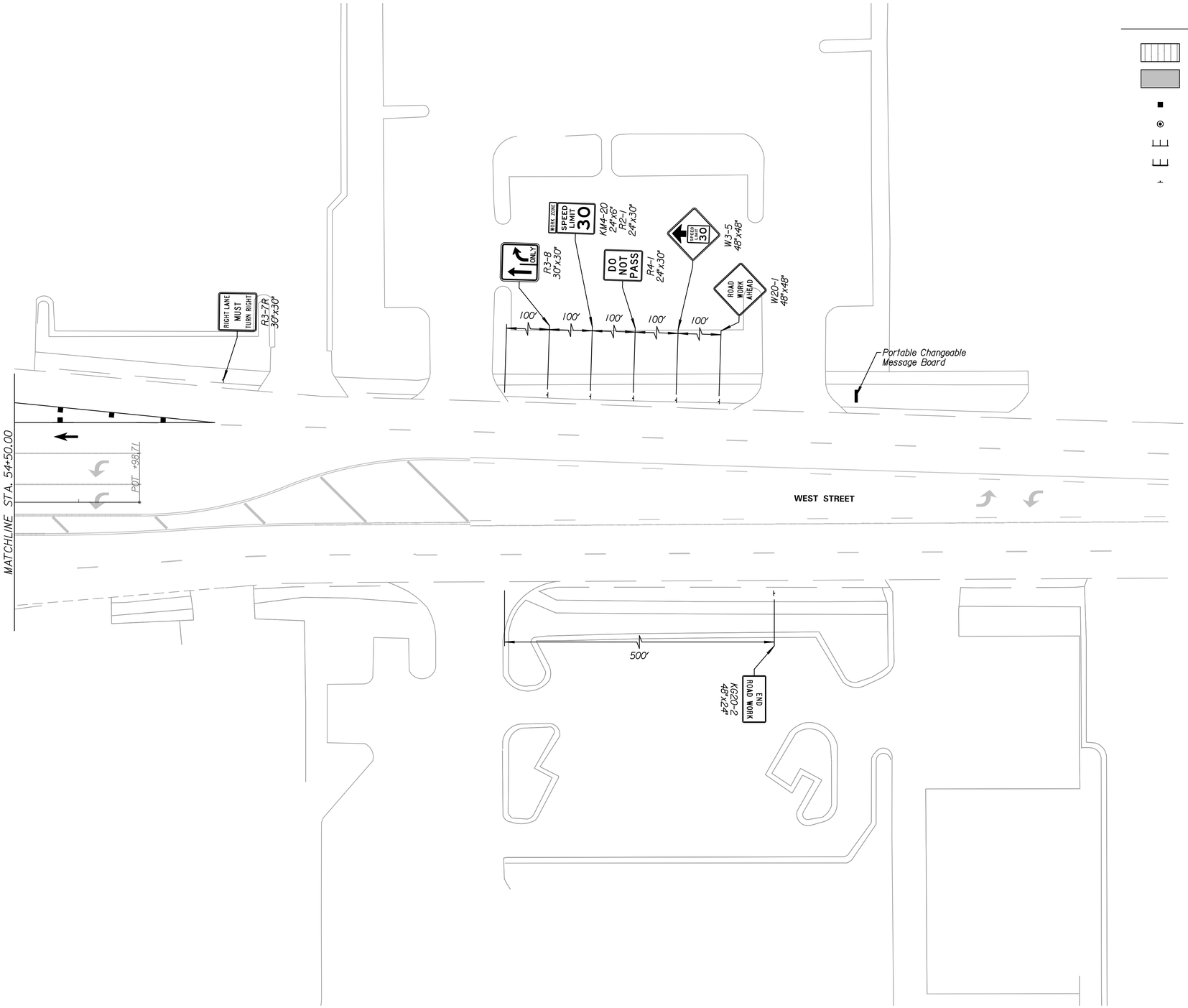

LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to construction, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that construction will be commencing on specified date and lanes will be reduced during construction.

When construction commences the portable changeable message board shall warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.

73

SHEET 73 OF 262

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

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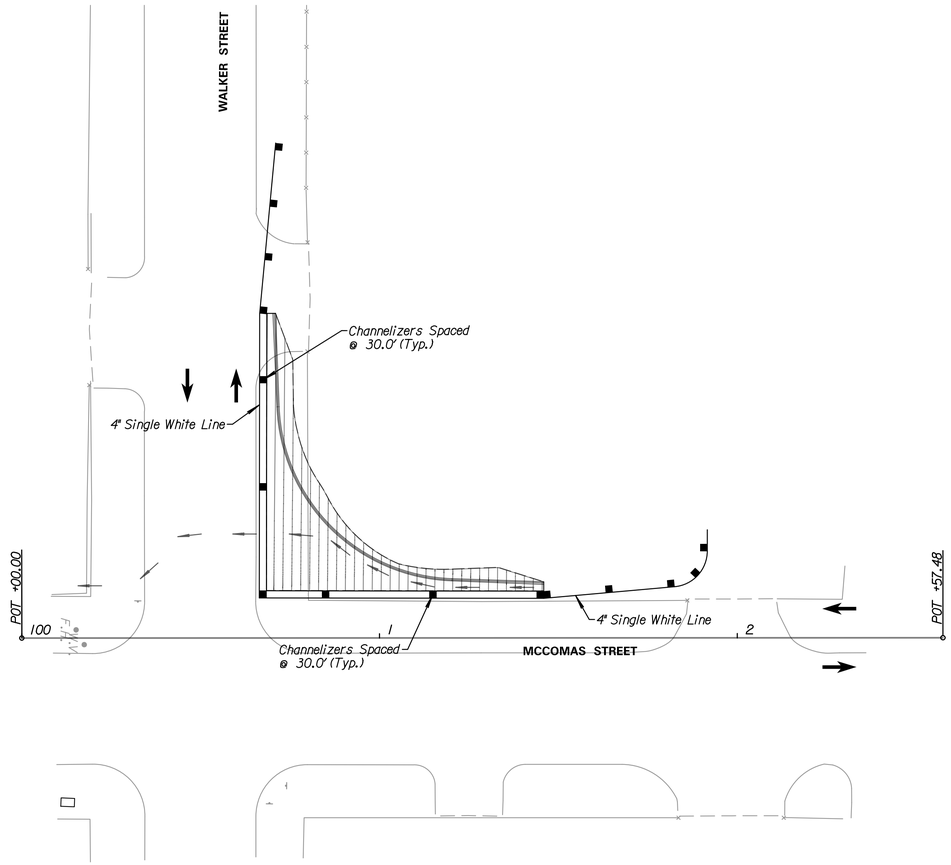
LEGEND

- Phase I
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 1

SHEET NO.
74
SHEET 74 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

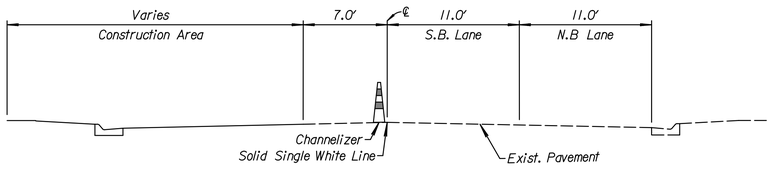
One (1) week prior to construction, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that a lane change will be commencing on specified date and the left lane will be closed

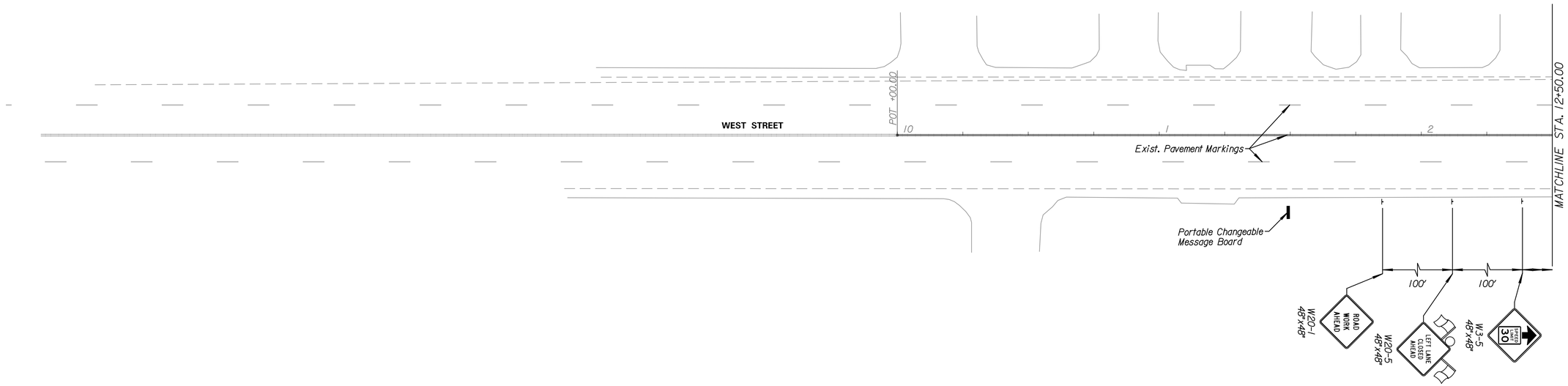
Phase 2a

Phase 2a construction shall close the west side of West Street from the centerline of Harry Street to approx. 180' south of the east leg of Irving Street. Head to head traffic shall be maintained through construction on the existing northbound lanes of West Street. Construction at the Walker Street and West Street Intersection shall be completed prior to starting construction at the Harry Street and West Street Intersection. During the construction of Walker Street, Harry Street shall remain open to full traffic. The Contractor shall minimize the time of construction within Harry Street and upon completion shall open the road up to full movements. Major items of work include but are not limited to concrete pavement, curb and gutter, sidewalk construction, storm sewer, pavement marking and signing, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

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

Typical Section Phase 2a





TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
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PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2a

SHEET NO.
75
SHEET 75 OF 262

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

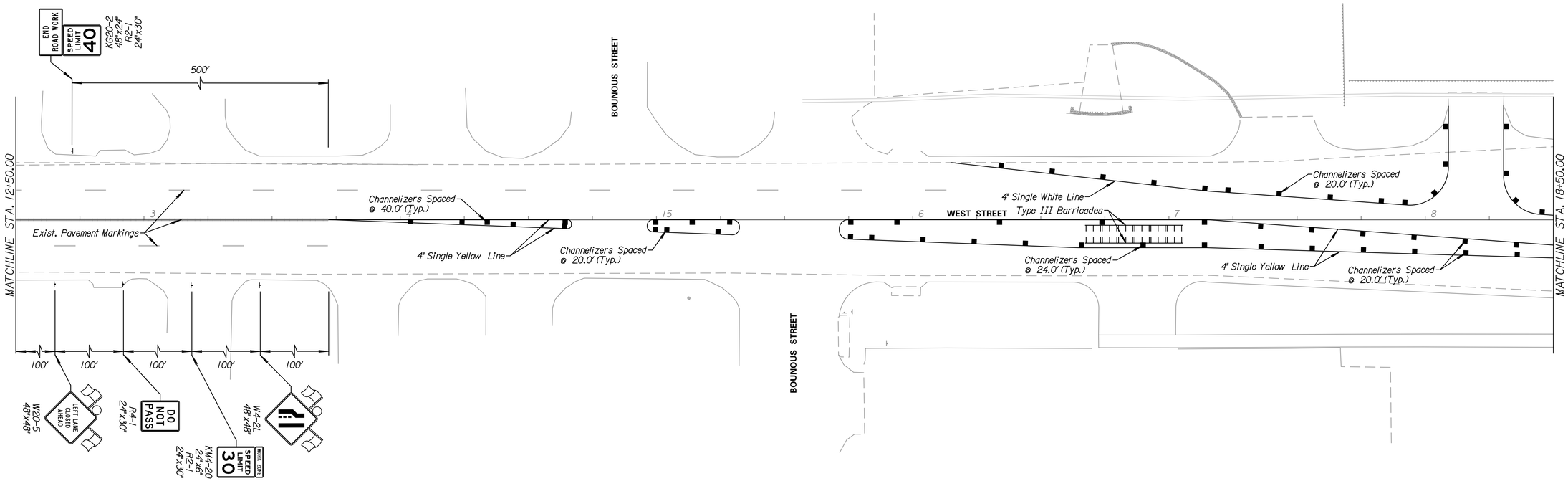
LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2a

SHEET NO.
76
SHEET 76 OF 262

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

mhoemer
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LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

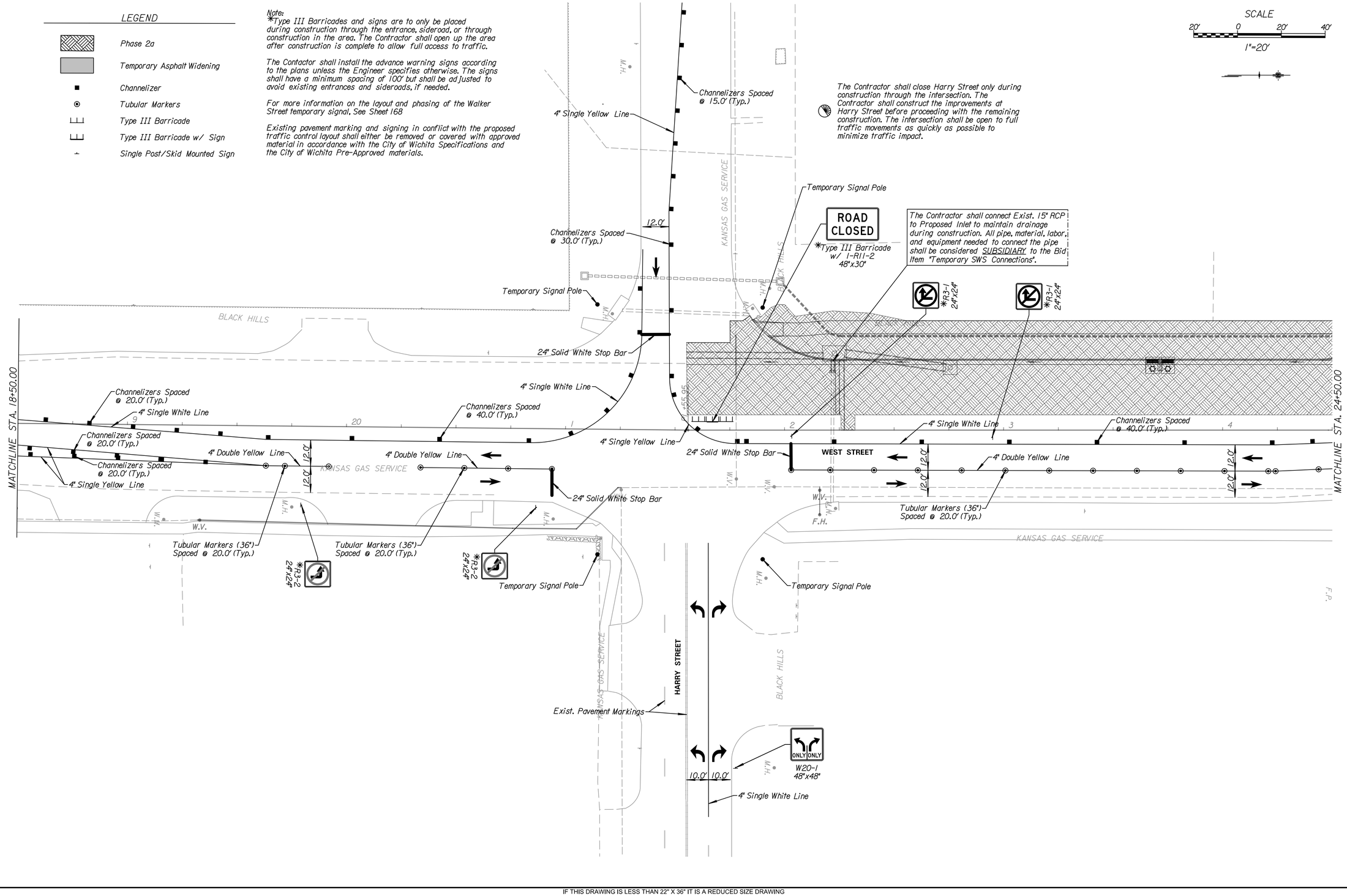
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 168

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

The Contractor shall close Harry Street only during construction through the intersection. The Contractor shall construct the improvements at Harry Street before proceeding with the remaining construction. The intersection shall be open to full traffic movements as quickly as possible to minimize traffic impact.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5829

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS
CITY OF WICHITA

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
77
SHEET 77 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

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

*Type III Barricade w/ I-R11-2 48"x30"
ROAD CLOSED
W20-1 48"x48"
ROAD WORK AHEAD
100'
MONROE STREET
END ROAD WORK
KG20-2 48"x24"
500'
The Contractor shall connect Exist. 15" CMP to Proposed Inlet to maintain drainage during construction. All pipe, material, labor, and equipment needed to connect the pipe shall be considered SUBSIDIARY to the Bid Item "Temporary SWS Connections".
R1-1 36"x36"
STOP
MATCHLINE STA. 24+50.00
MATCHLINE STA. 30+50.00
Channelizers Spaced @ 20.0' (Typ.)
4" Single White Line
4" Double Yellow Line
*Type III Barricades
Tubular Markers (36") Spaced @ 20.0' (Typ.)
Channelizers Spaced @ 40.0' (Typ.)
WEST STREET
W.V.
F.H.
W.M.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 1"=20'
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
78
SHEET 78 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 162

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

One (1) week prior to the Walker Street closure, the Contractor shall position a portable changeable message board at a location determined by the Engineer on Walker Street to warn travellers that the road will be closed on specified date and traffic shall use the Harry Street intersection for access.

Upon the closure of Walker Street, the Contractor shall adjust the message in accordance with the Engineer, to let traffic know they shall use the Harry Street intersection during construction.

The entrance to 1035 S. West Street off of Walker Street shall be constructed prior to closing and removing the existing entrance to the property off of West Street per property negotiations.

MATCHLINE: SEE DETAILS THIS SHEET

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

WALKER STREET

*Type III Barricade w/ 1-R11-2 48"x30"
ROAD CLOSED

The Contractor shall connect Exist. 15" CMP to Proposed Inlet to maintain drainage during construction. All pipe, material, labor, and equipment needed to connect the pipe shall be considered SUBSIDIARY to the Bid Item "Temporary SWS Connections".

MATCHLINE STA. 30+50.00

4" Single White Line
Type III Barricades
*Type III Barricades
Channelizers Spaced @ 40.0' (Typ.)
Tubular Markers (36") Spaced @ 20.0' (Typ.)
4" Double Yellow Line
24" Solid White Stop Bar
W.V.
W.M.

WEST STREET

MATCHLINE STA. 36+50.00

The Contractor shall connect Exist. 15" CMP to Proposed Inlet to maintain drainage during construction. All pipe, material, labor, and equipment needed to connect the pipe shall be considered SUBSIDIARY to the Bid Item "Temporary SWS Connections".

WALKER STREET

500'
KG20-2 48"x24"
END ROAD WORK

F.H.
100'
ROAD WORK AHEAD
W20-1 48"x48"

Portable Changeable Message Board

UPSTREAM SIGNING MATCHLINE

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
79
SHEET 79 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

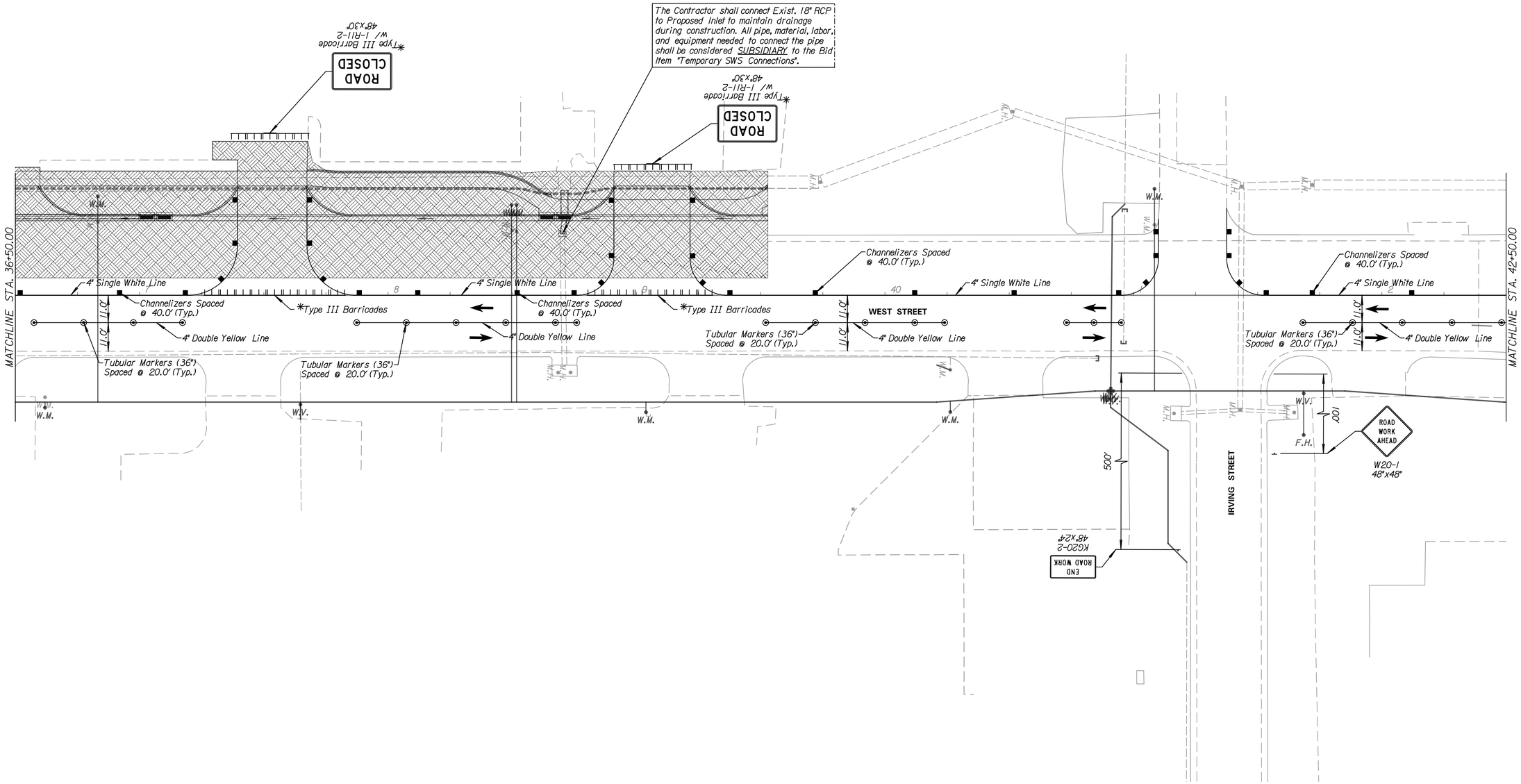
Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

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



TranSystems
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
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DESIGNED BY:	TAU
DRAWN BY:	TAU
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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
80
SHEET 80 OF 262

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

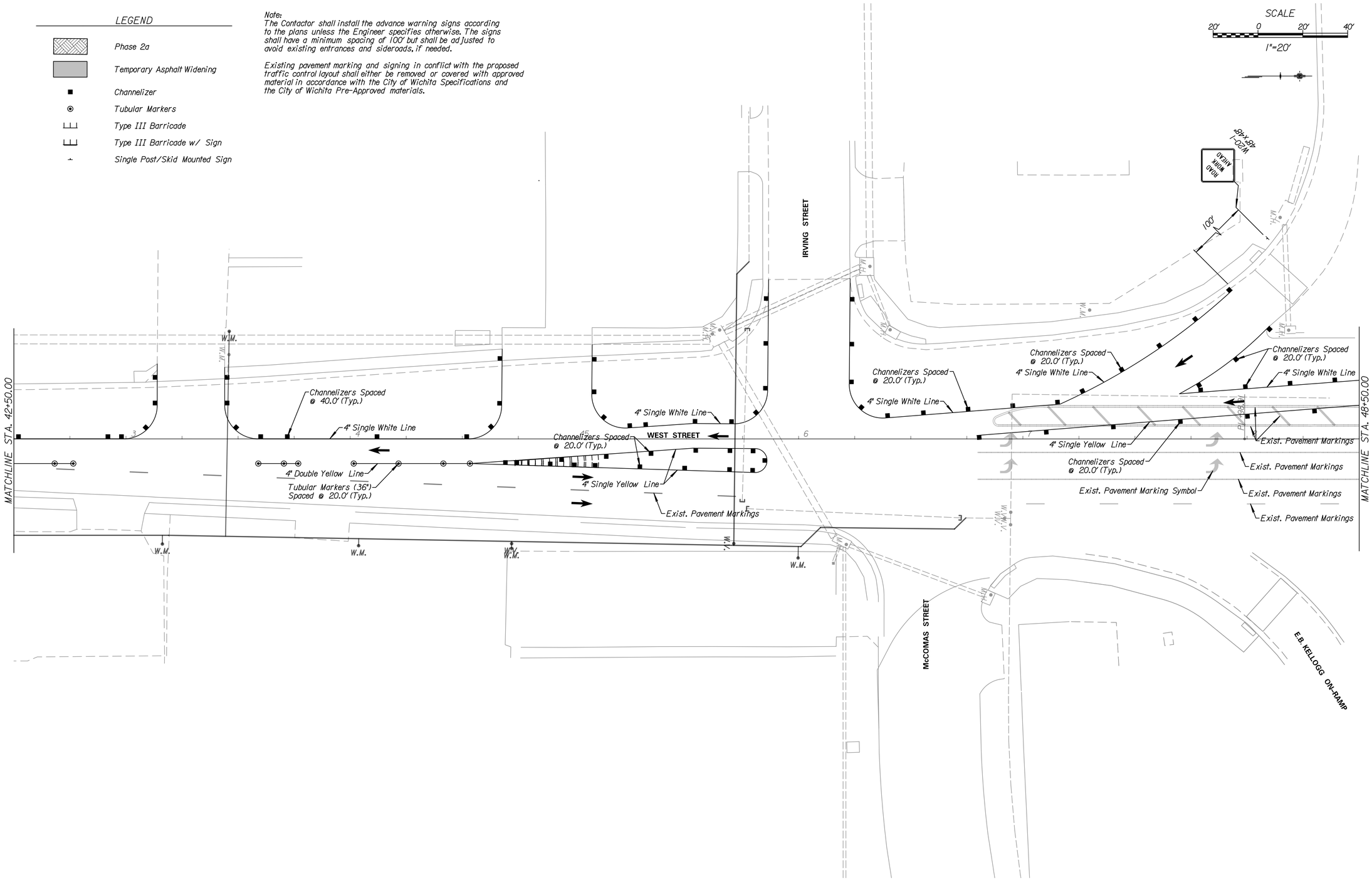
LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
81

SHEET 81 OF 262

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LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

W.B. KELLOGG ON-RAMP

E.B. KELLOGG OFF-RAMP

W1-4L 48"x48"

END ROAD WORK
KG20-2 48"x24"

500'

RIGHT LANE MUST TURN RIGHT
R3-7R 30"x30"

Channelizers Spaced @ 20.0' (Typ.)

11'-0"

4" Single White Line

Exist. Pavement Markings

WEST STREET

Exist. Pavement Marking Symbol

Channelizers Spaced @ 40.0' (Typ.)

MATCHLINE STA. 48+50.00

MATCHLINE STA. 54+50.00

E.B. KELLOGG ON-RAMP

W.B. KELLOGG OFF-RAMP

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
82
SHEET 82 OF 262

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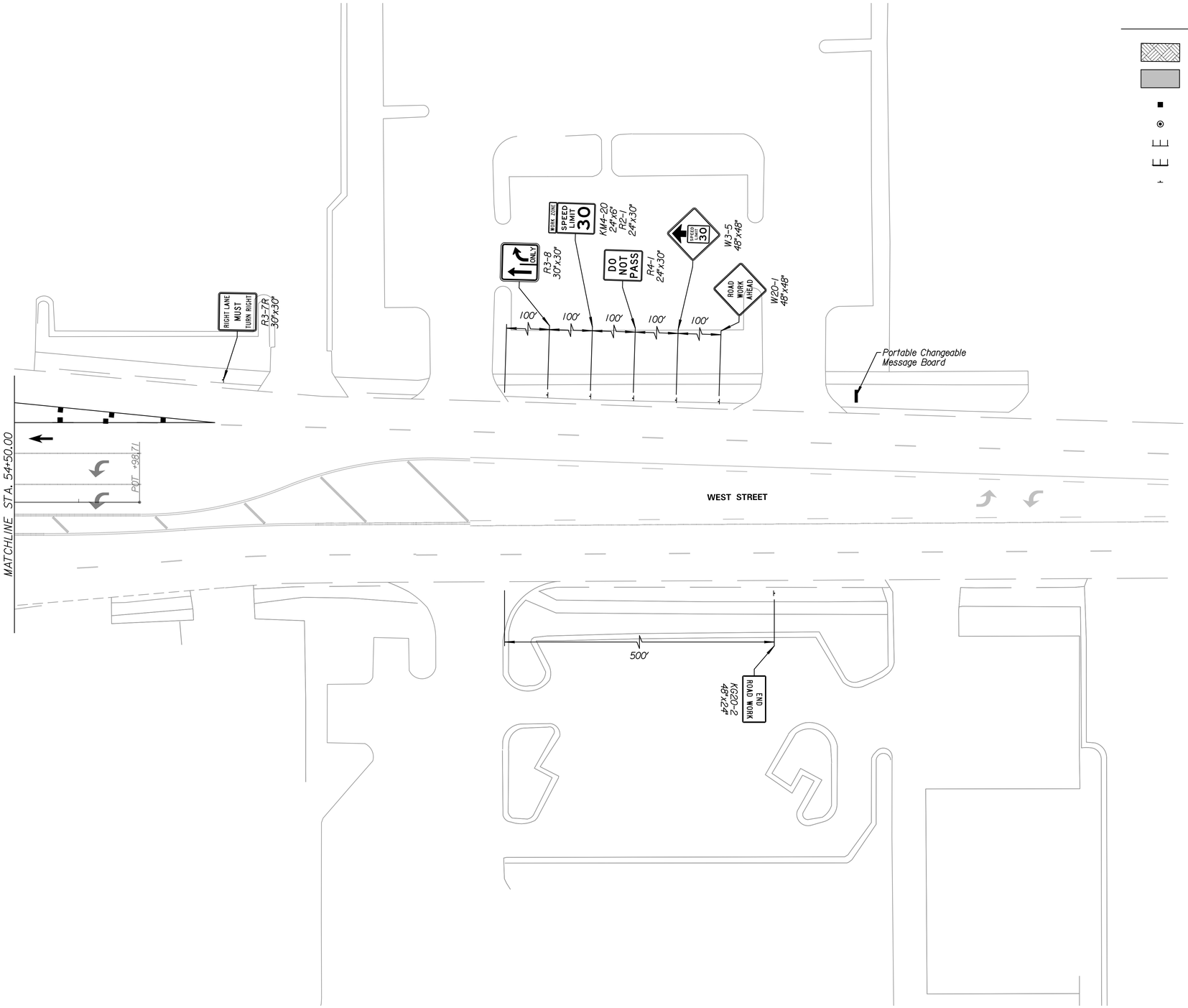
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2a

SHEET NO.

83

SHEET 83 OF 262

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

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LEGEND

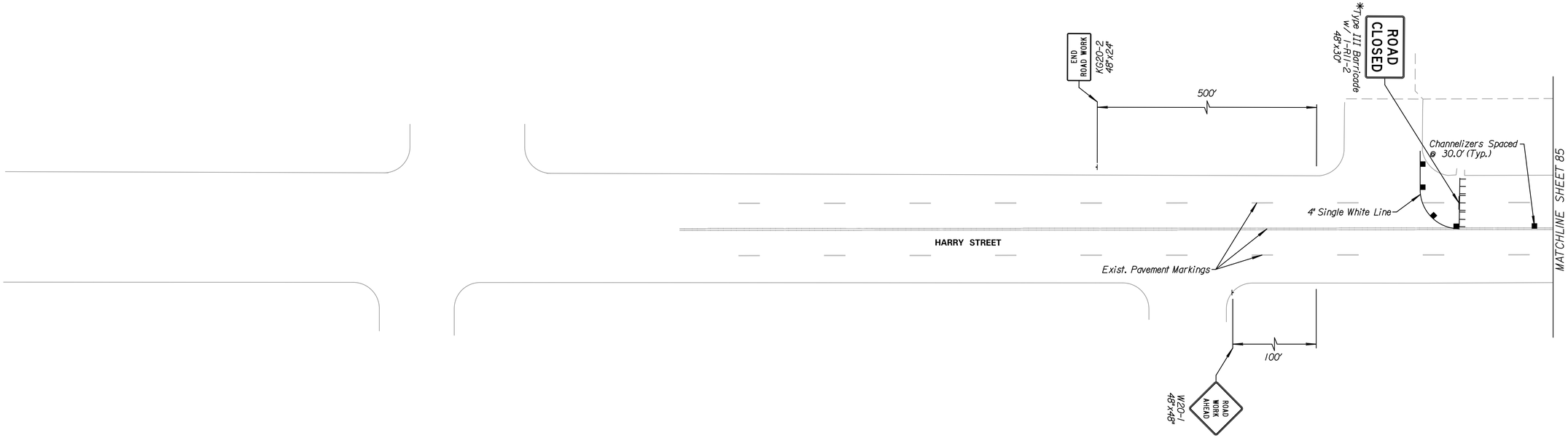
- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
84
SHEET 84 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 168

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

The Contractor shall close Harry Street only during construction through the intersection. The Contractor shall construct the improvements at Harry Street before proceeding with the remaining construction. The intersection shall be open to full traffic movements as quickly as possible to minimize impact.

*R3-1 24"x24"
*R3-1 24"x24"
ROAD CLOSED
*Type III Barricade w/ I-RII-2 48"x30"
4" Single Yellow Line
Tubular Markers (36") Spaced @ 20.0' (Typ.)
12.0' 12.0'
24" Solid White Stop Bar
AT&T DUCT BANK
KANSAS GAS SERVICE
BLACK HILLS
W.V.
F.H.
M.H.
W20-1 48"x48" ONLY
W20-1 48"x48" ONLY
ROAD WORK AHEAD W20-1 48"x48"
100' 100'
4" Single White Line
10.0' 10.0'
HARRY STREET
Exist. Pavement Markings
MATCHLINE SHEET 85
Channelizers Spaced @ 15.0' (Typ.)
Channelizers Spaced @ 30.0' (Typ.)
4" Single Yellow Line
4" Single Yellow Line
4" Single Yellow Line
24" Solid White Stop Bar
4" Single White Line
12.0'
AT&T TELEPHONE
W.M.
500'
END ROAD WORK K620-2 48"x24"
24" Solid White Stop Bar
*R3-2 24"x24"
4" Single Yellow Line
Tubular Markers (36") Spaced @ 20.0' (Typ.)
4" Single White Line
Channelizers Spaced @ 40.0' (Typ.)
20'
AT&T TELEPHONE
*R3-2 24"x24"

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2a

SHEET NO.
85
SHEET 85 OF 262

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

LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

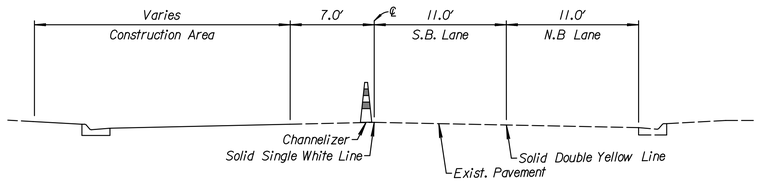
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

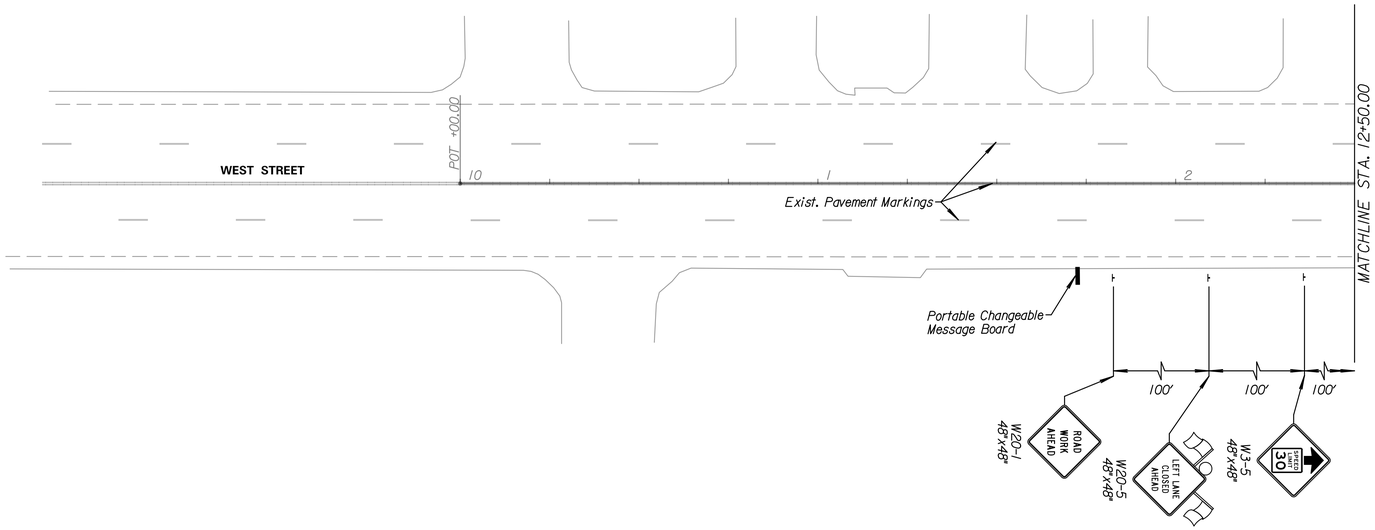
Phase 2b

Phase 2b construction shall close the south bound lanes of West Street from Harry Street to the south end of the project. Two way traffic shall be maintained through construction on the existing northbound lanes on West Street. Eastbound traffic on Harry Street will be closed during construction through the intersection. Major items of work include but are not limited to ashpalt pavement, concrete pavement, curb and gutter, sidewalk construction, driveway construction, storm sewer, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

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

Typical Section Phase II





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SUITE 222
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
86
SHEET 86 OF 262

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

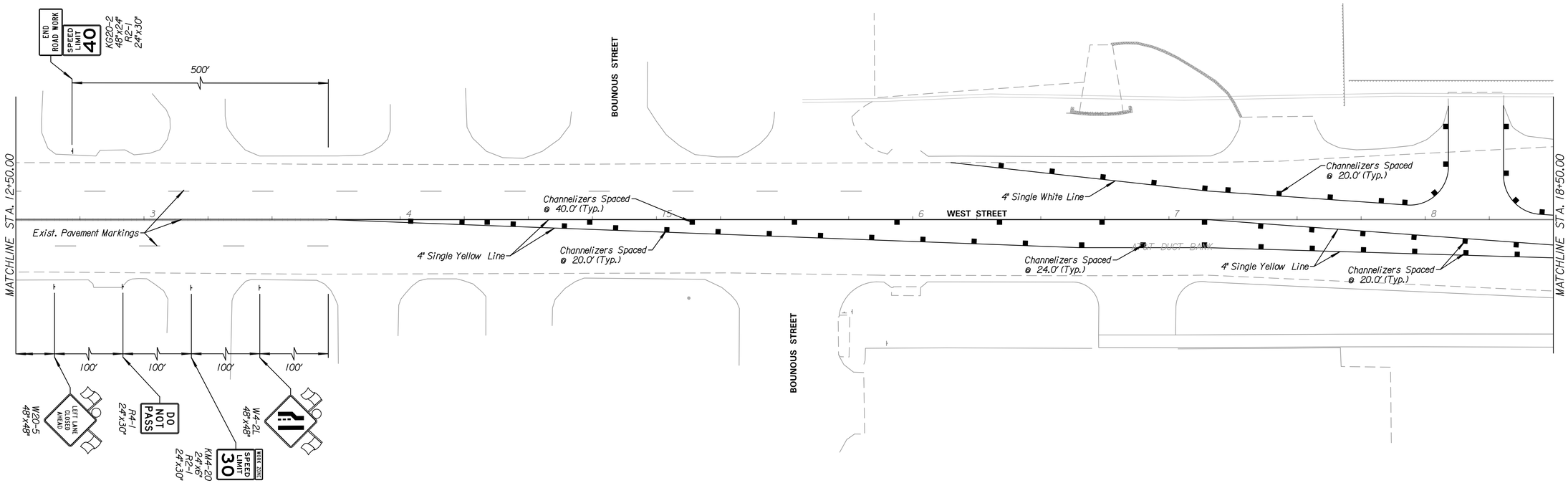
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
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SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2b

SHEET NO.

87

SHEET 87 OF 262

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

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LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

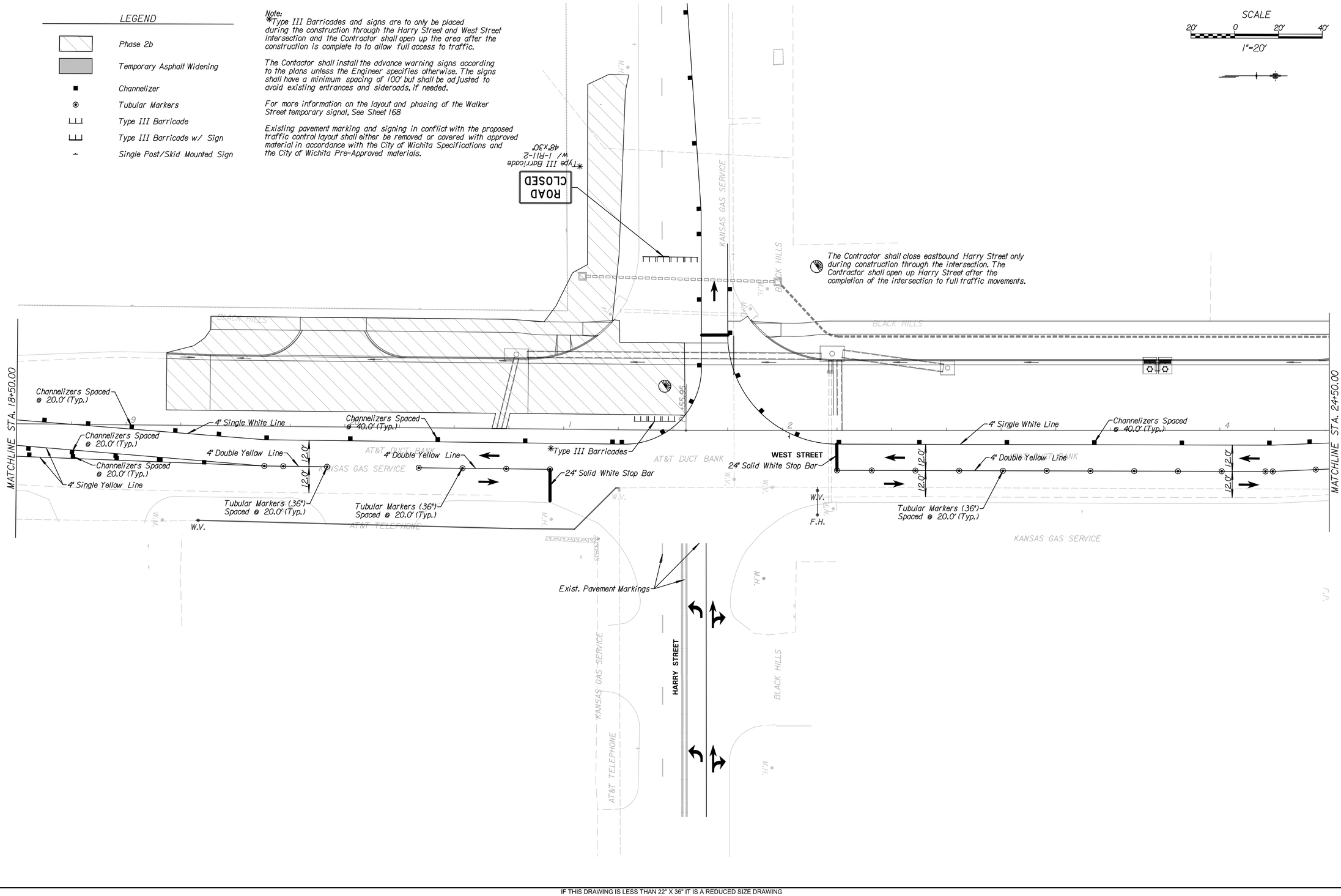
Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 168

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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

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245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
88
SHEET 88 OF 262

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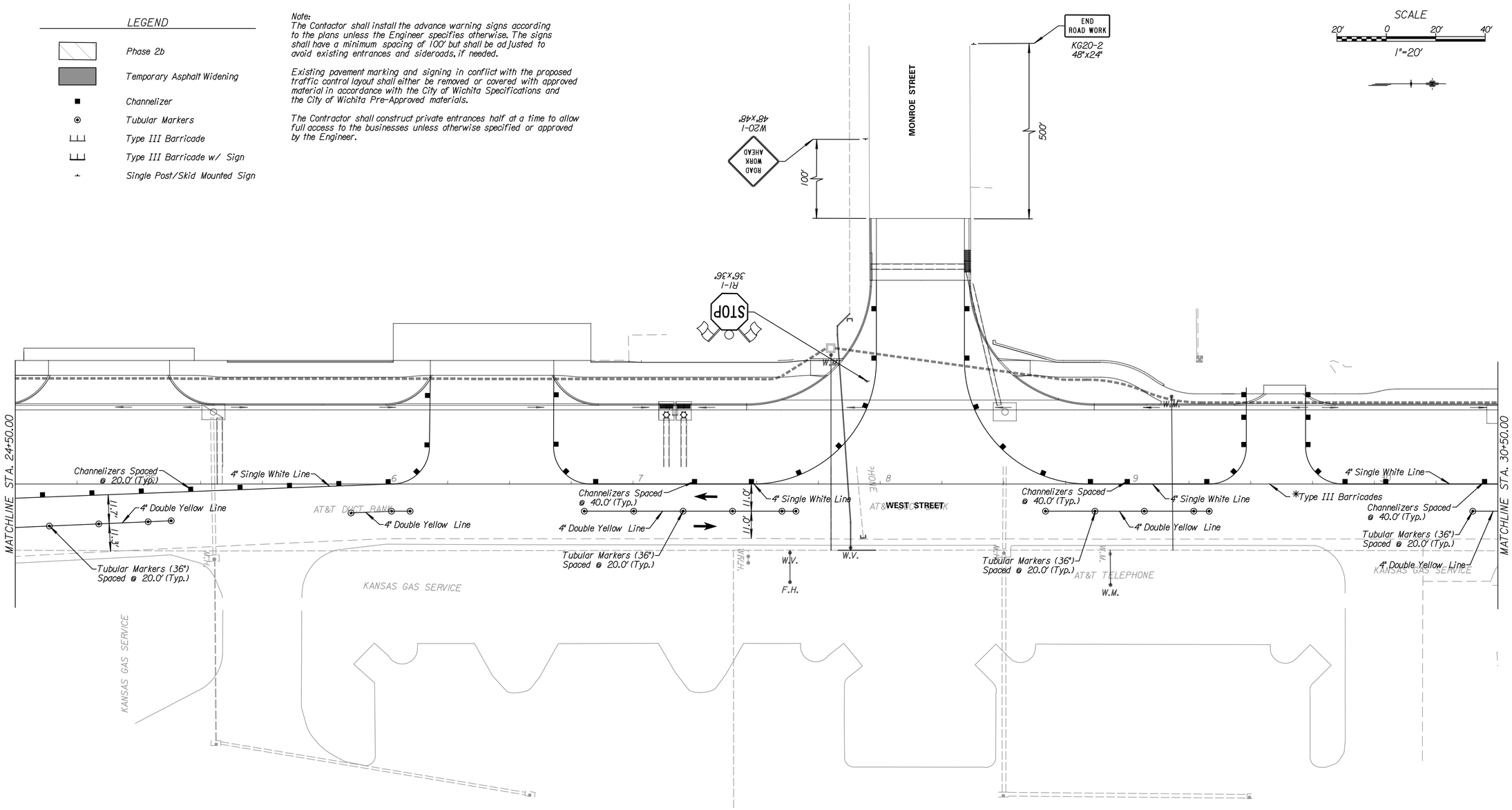
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.

89

SHEET 89 OF 262

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

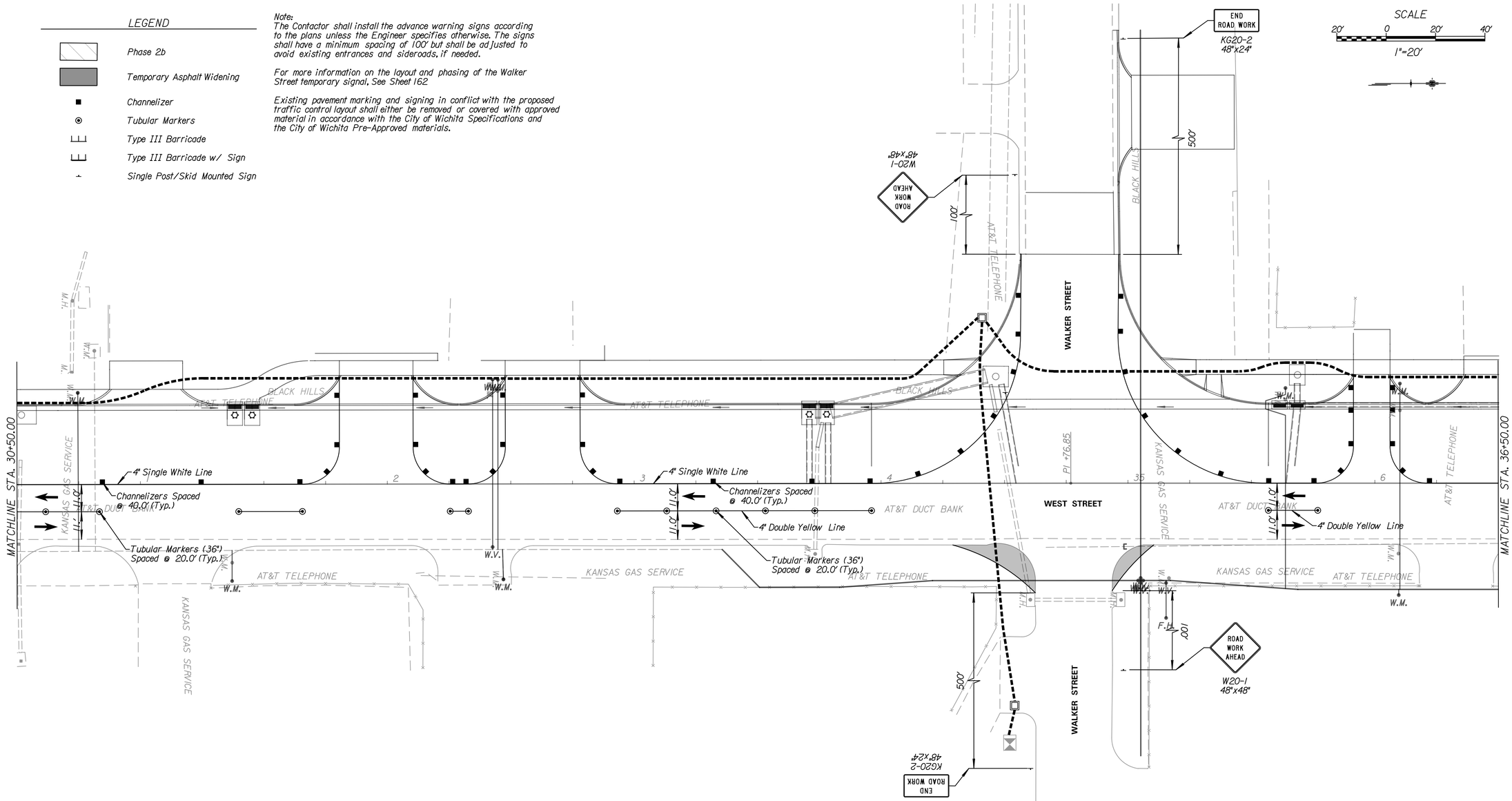
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 162

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2b

SHEET NO.

90

SHEET 90 OF 262

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

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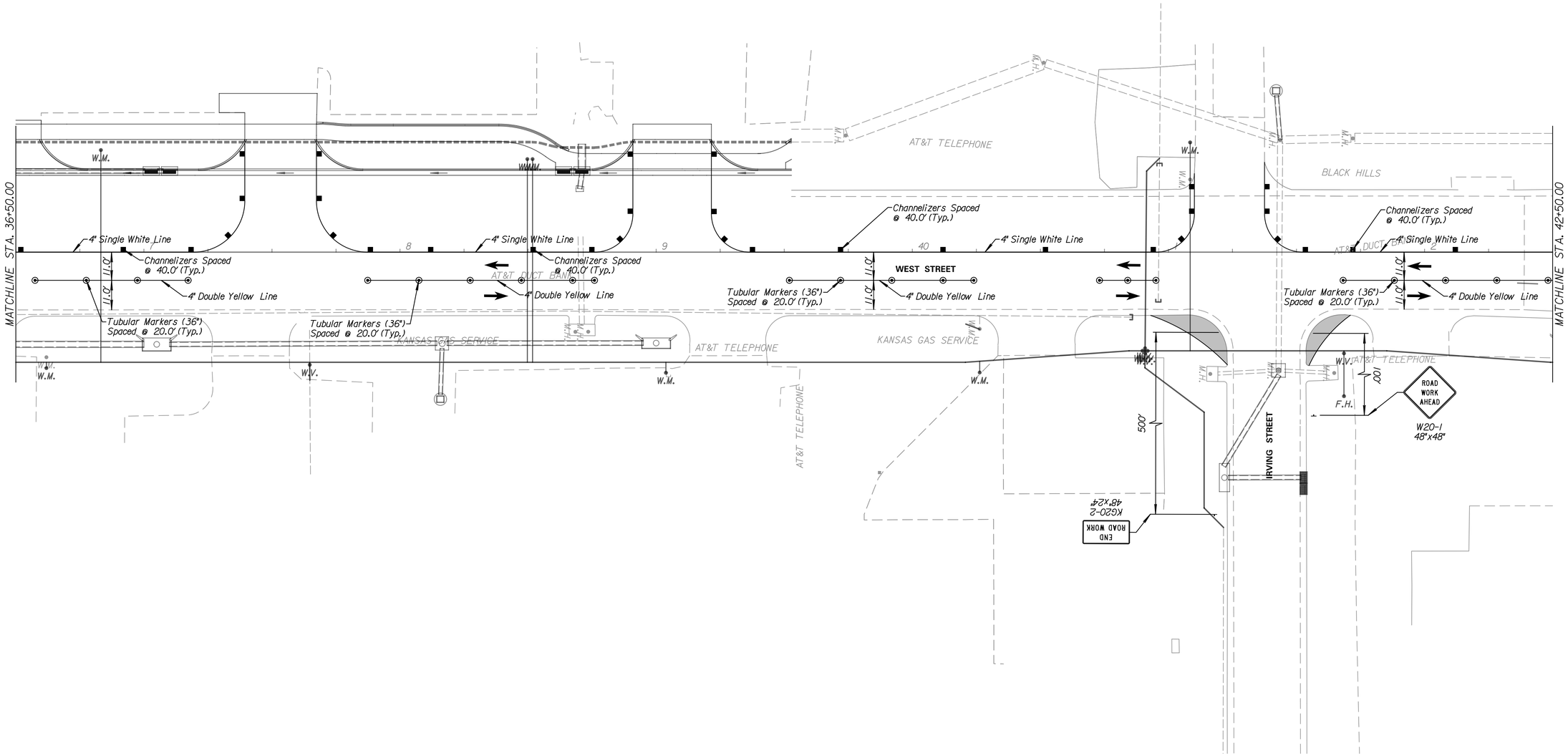
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
91
SHEET 91 OF 262

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

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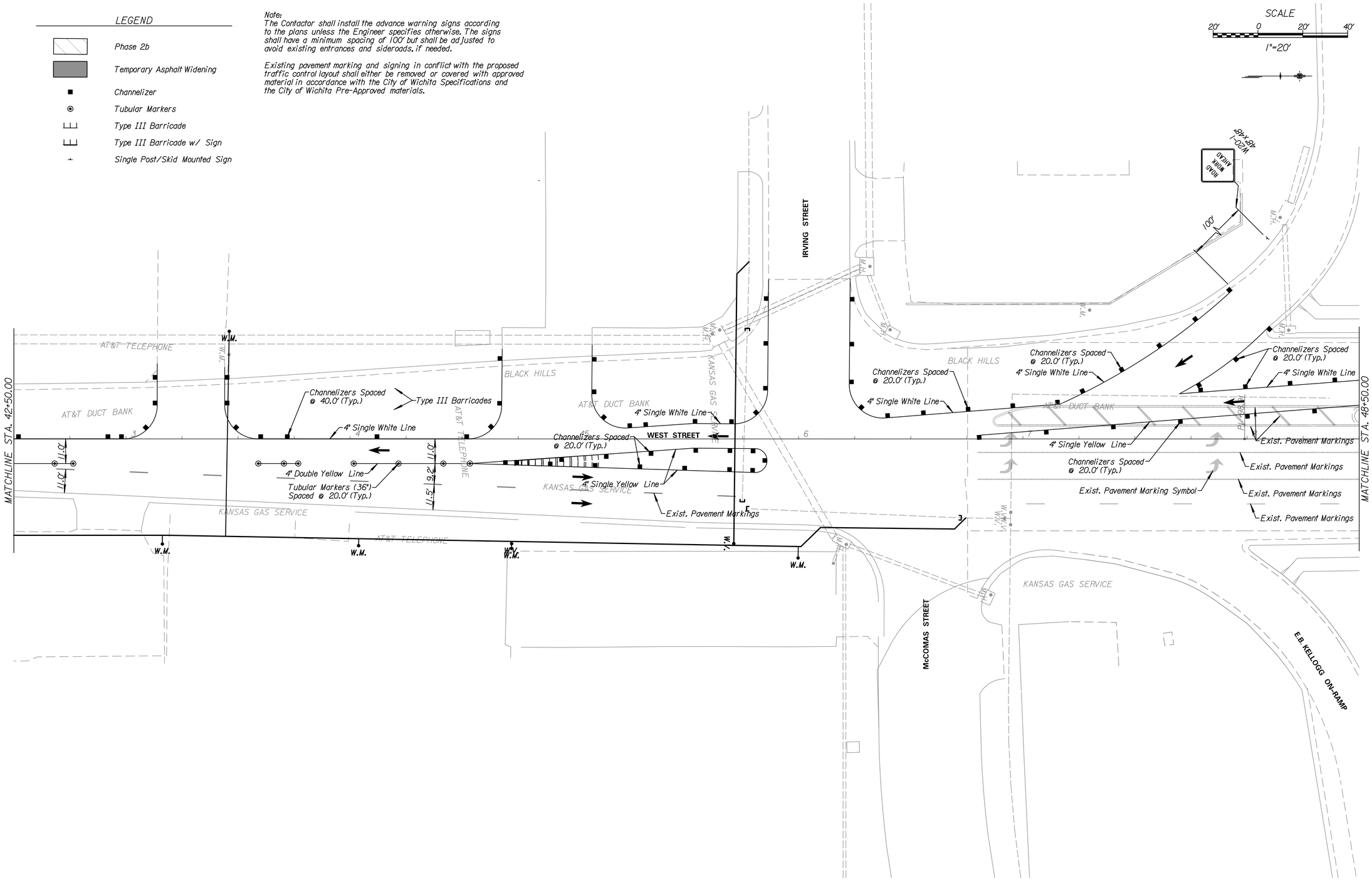
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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

TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
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DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.

92

SHEET 92 OF 262

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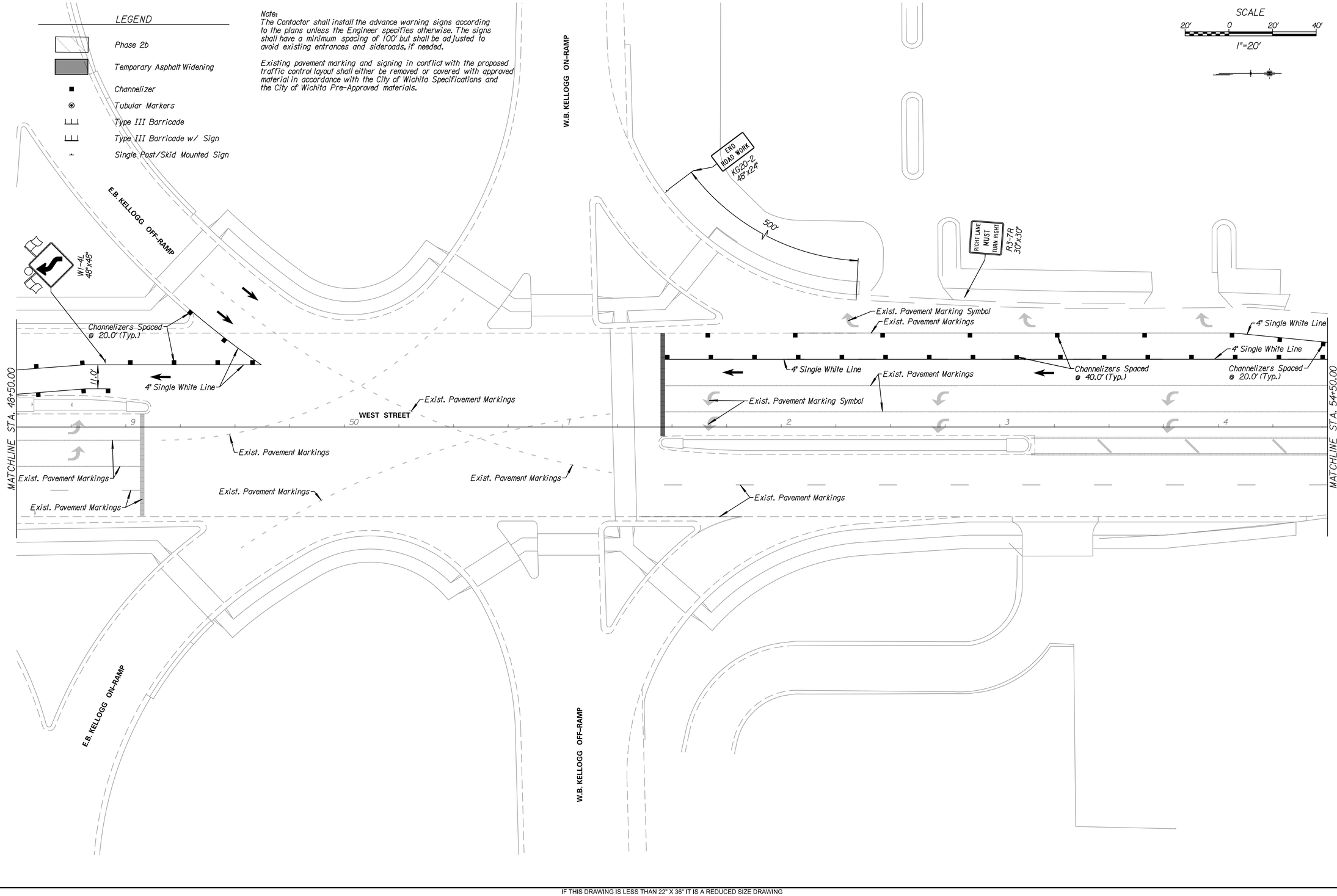
LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
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PHONE: 316-303-3000
FAX: 316-462-5629

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
93
SHEET 93 OF 262

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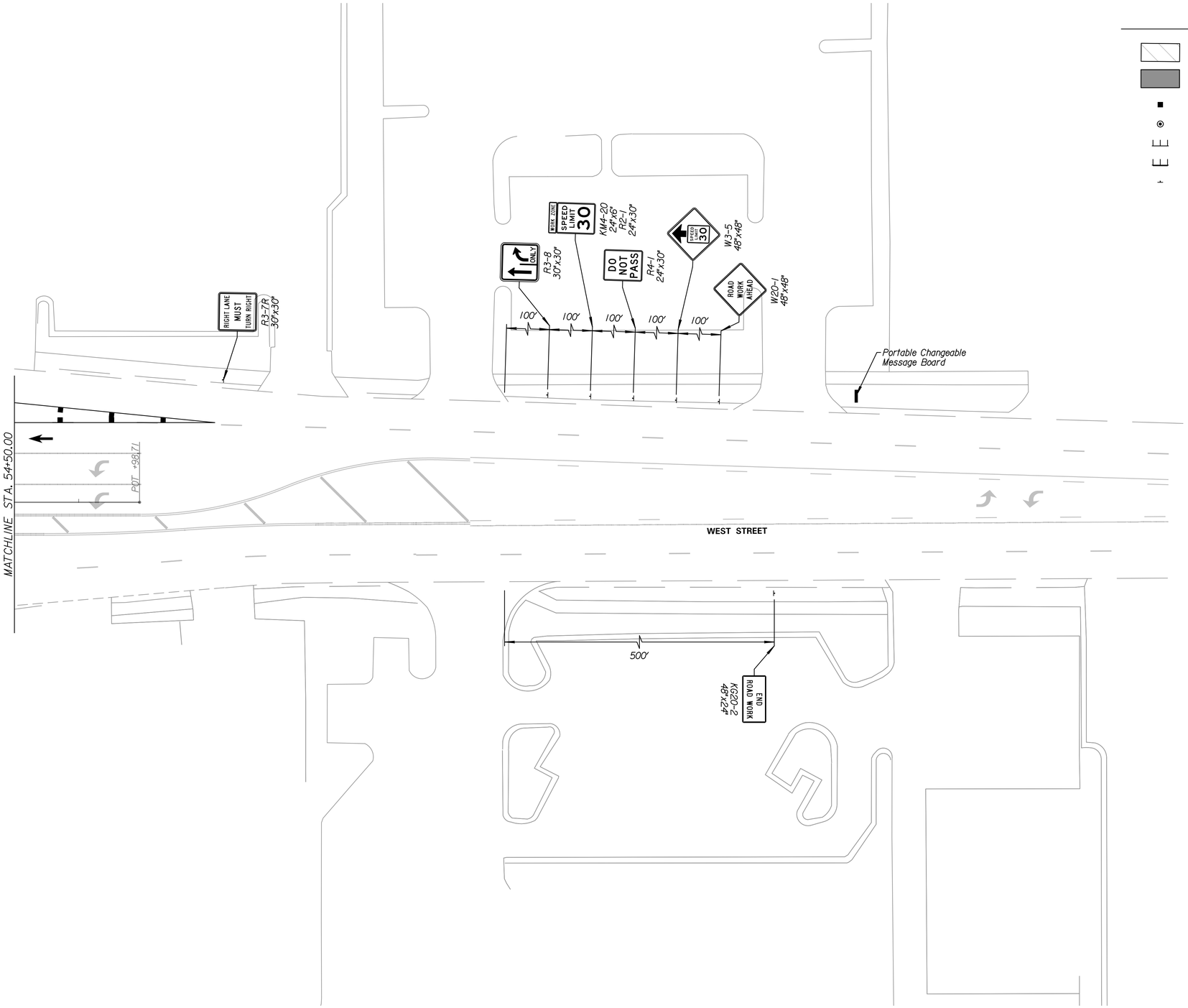
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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PROJ NO:	472-85296
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DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2b

SHEET NO.

94

SHEET 94 OF 262

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

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LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

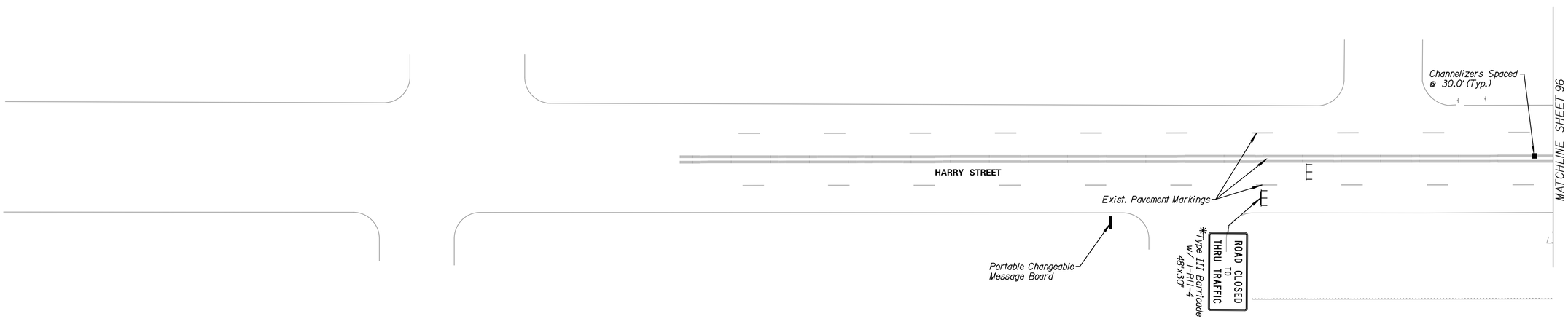
Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic. The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to construction, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that construction will be commencing on specified date and Harry Street will be closed for a short period of time.

When Harry Street is closed and construction commences the portable changeable message board shall warn traffic that the Harry Street intersection is closed use alternate route. The message shall be determined by the Engineer unless otherwise noted on the plans.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
95
SHEET 95 OF 262

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

LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

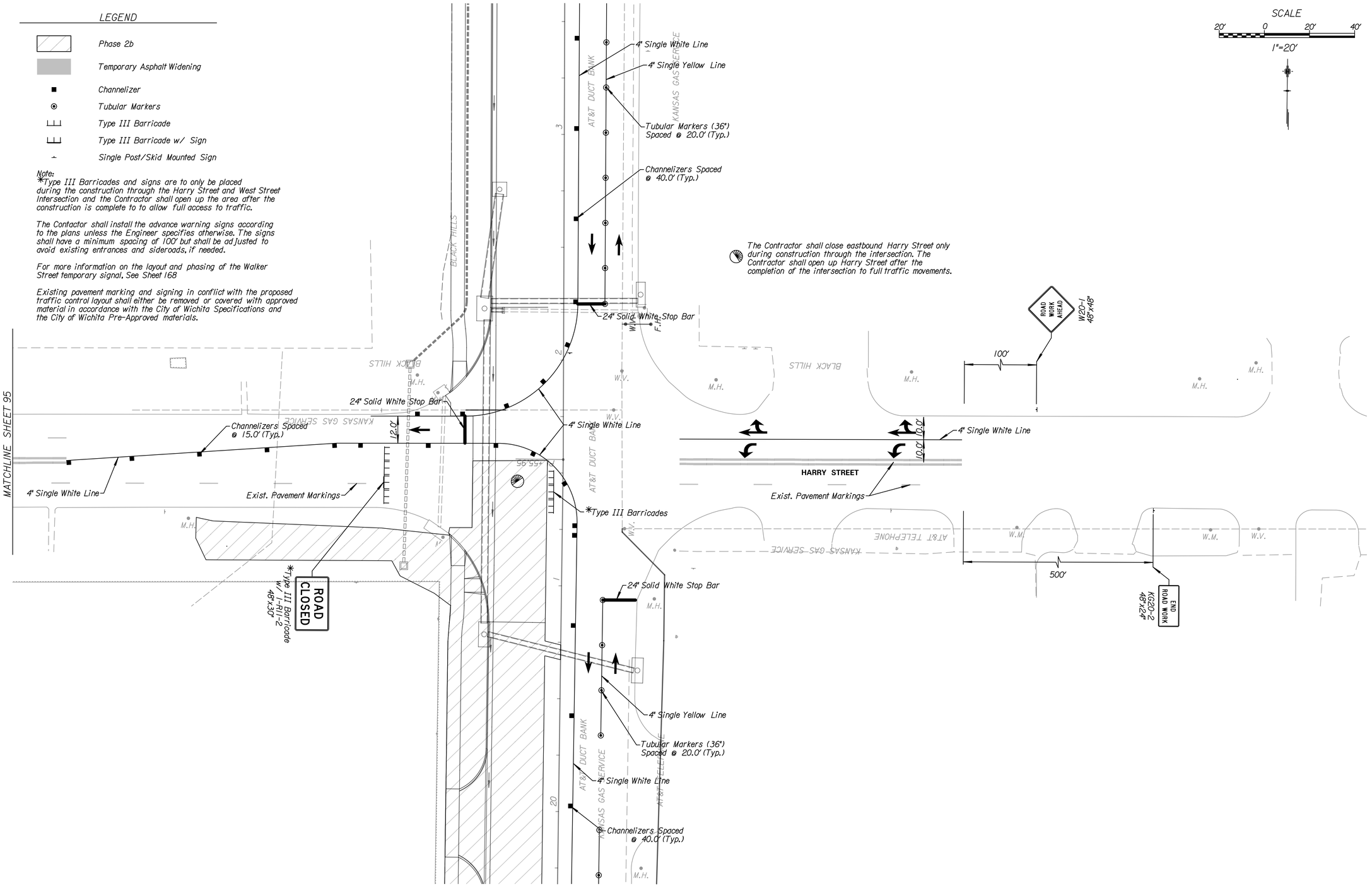
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 168

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

The Contractor shall close eastbound Harry Street only during construction through the intersection. The Contractor shall open up Harry Street after the completion of the intersection to full traffic movements.



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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
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DRAWN BY:	TAU
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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.

96

SHEET 96 OF 262

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

LEGEND

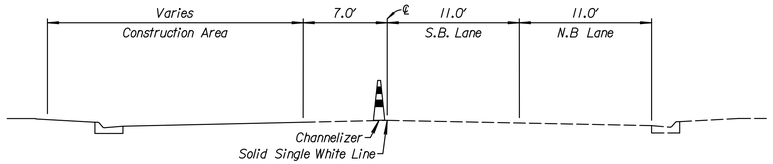
- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall leave the portable changeable message board and adjust the message in accordance with the Engineer to continue warning the travelling public that the left lane is closed through construction.

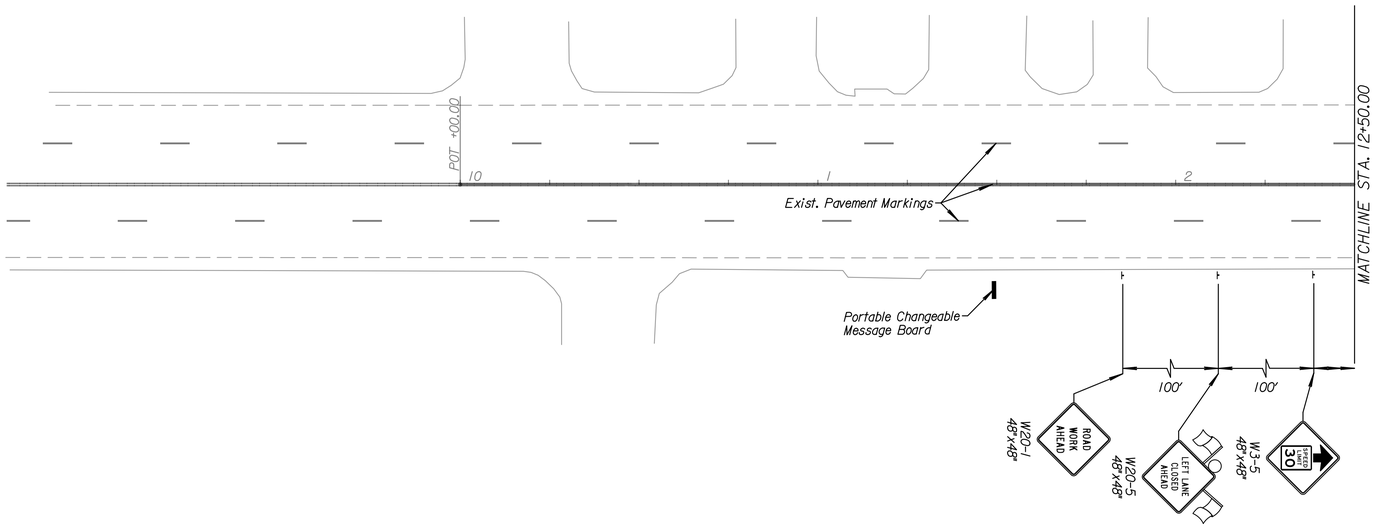
Typical Section Phase 2c



Phase 2c

Phase 2c construction shall construct the west side of West Street from the north project limits to approx. 180' south of Irving Street. Head to head traffic shall be maintained throughout the duration of construction on the existing northbound lanes of West Street. Two way traffic shall be maintained through construction on the existing northbound lanes on West Street. Major items of work include but are not limited to concrete pavement, curb and gutter, sidewalk construction, storm sewer, pavement marking and signing, temporary traffic signal installation, ITS conduit installation, grading, and seeding.

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



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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.
97
SHEET 97 OF 262

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

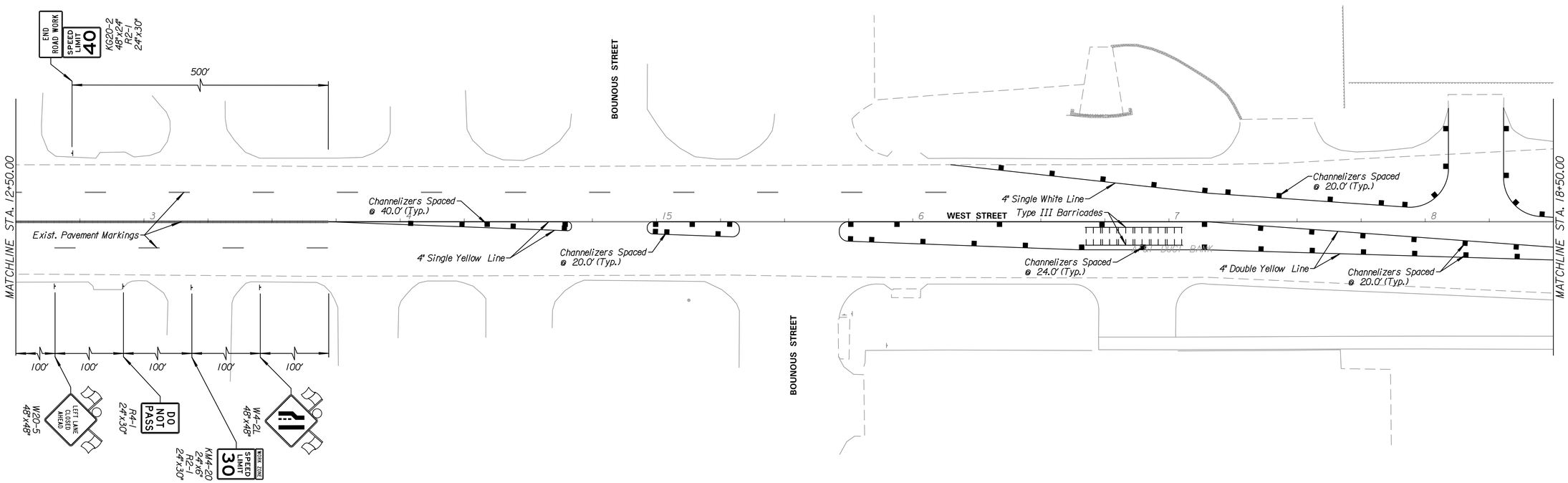
LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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FAX: 316-462-5629

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2c

SHEET NO.

98

SHEET 98 OF 262

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

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LEGEND

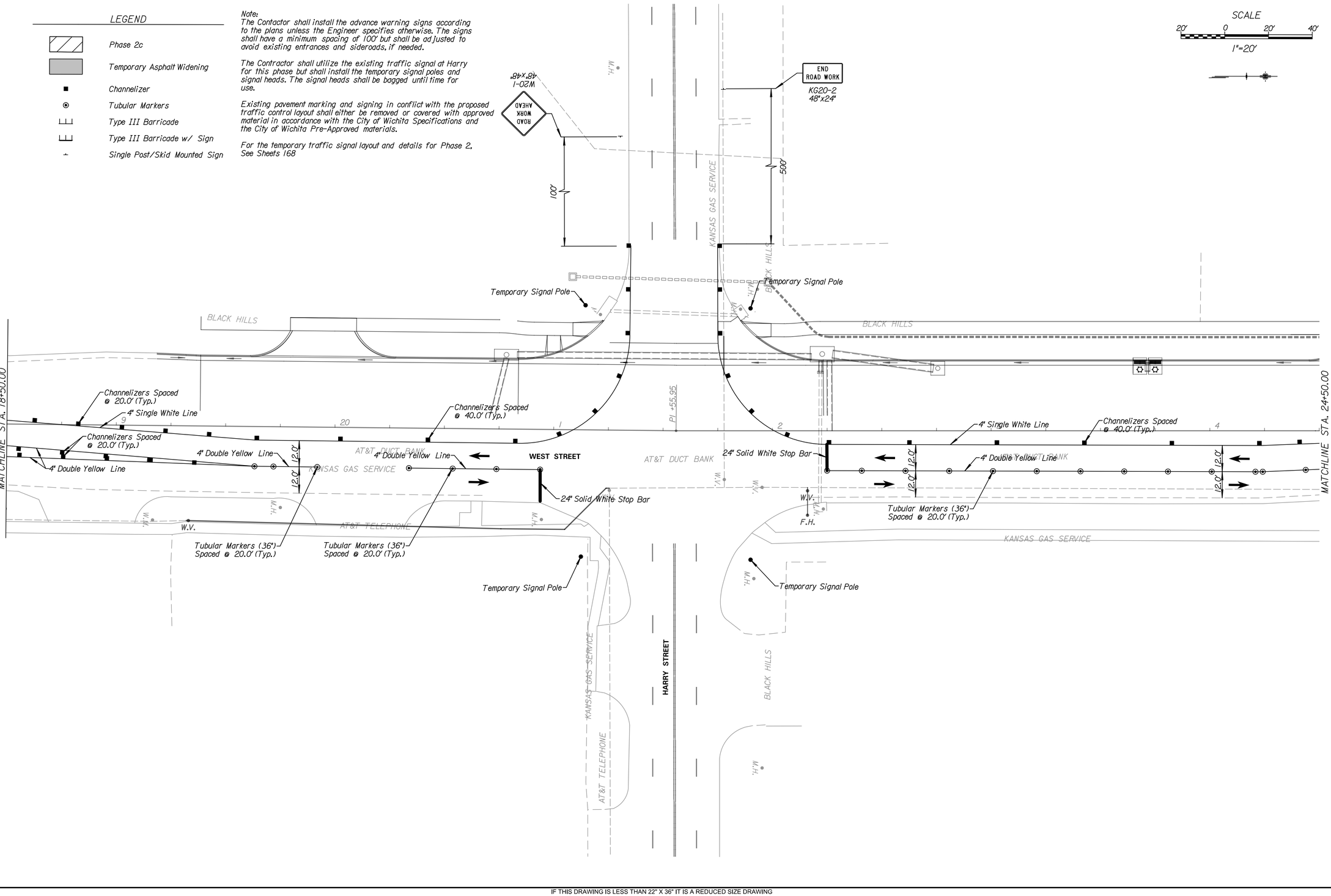
- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

The Contractor shall utilize the existing traffic signal at Harry for this phase but shall install the temporary signal poles and signal heads. The signal heads shall be bagged until time for use.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

For the temporary traffic signal layout and details for Phase 2, See Sheets 168



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SUITE 222
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FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.
99
SHEET 99 OF 262

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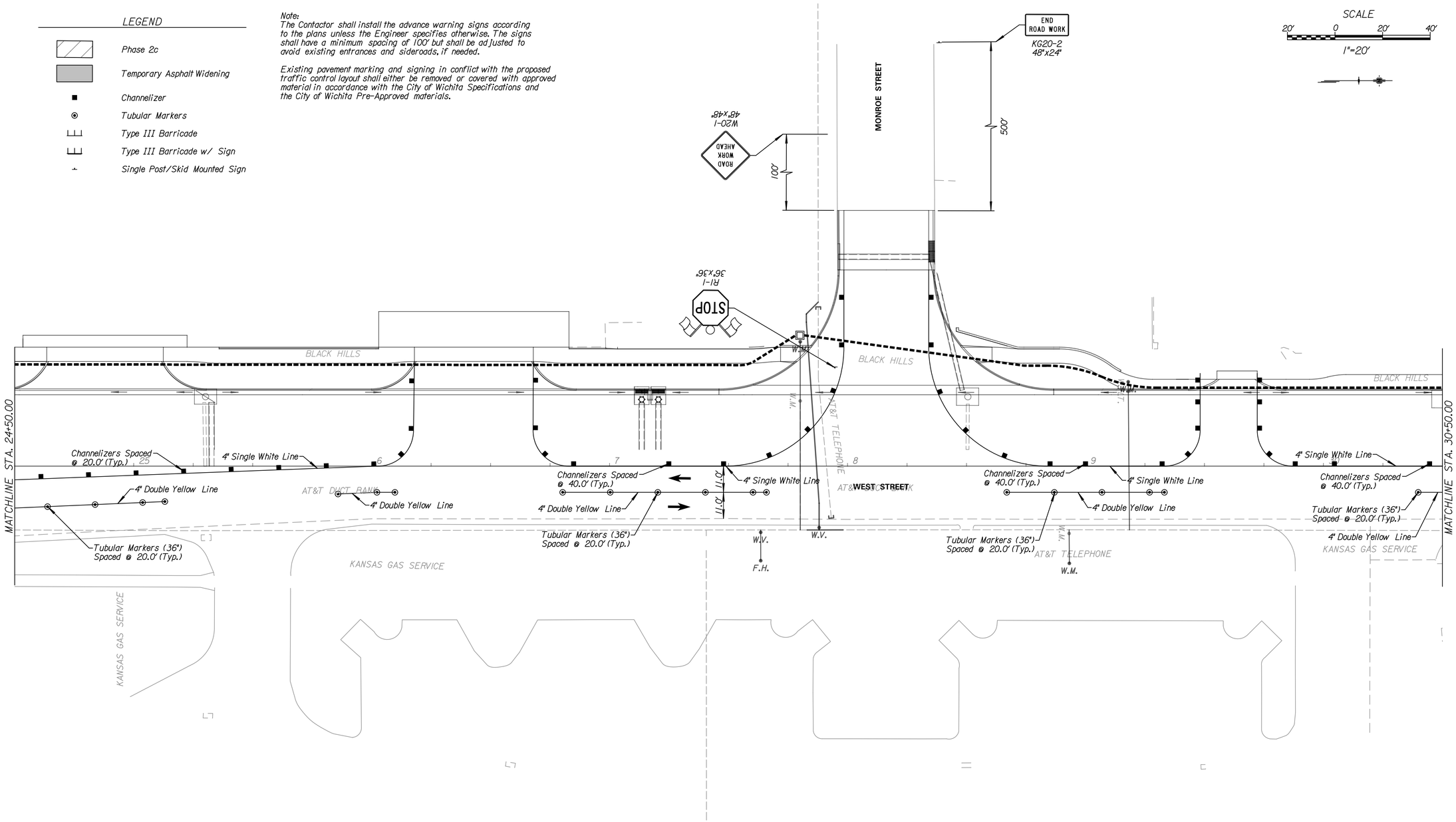
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.

100

SHEET 100 OF 262

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

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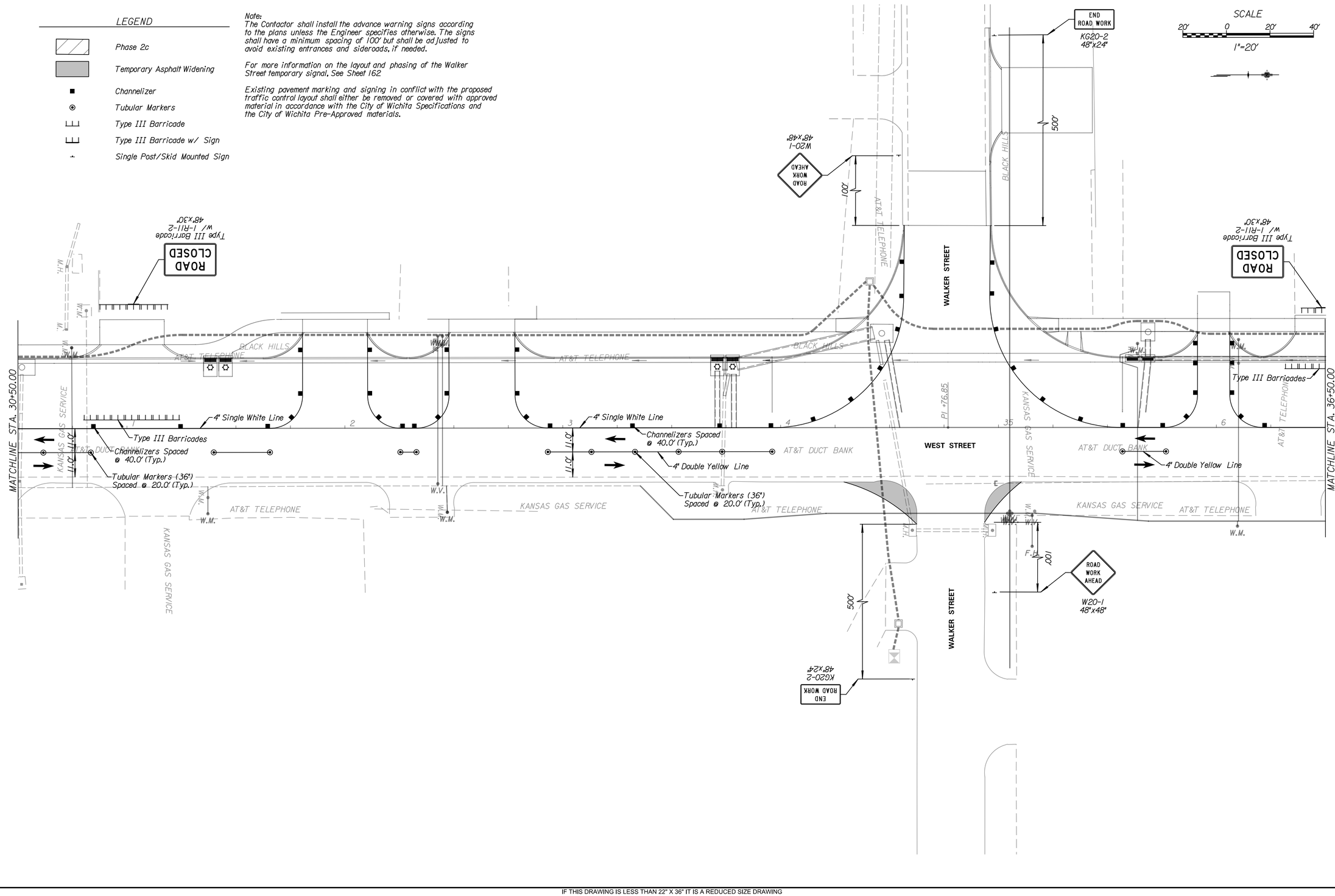
LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 162

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



TranSystems
245 NORTH WACO
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

City of WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.

101

SHEET 101 OF 262

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

LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

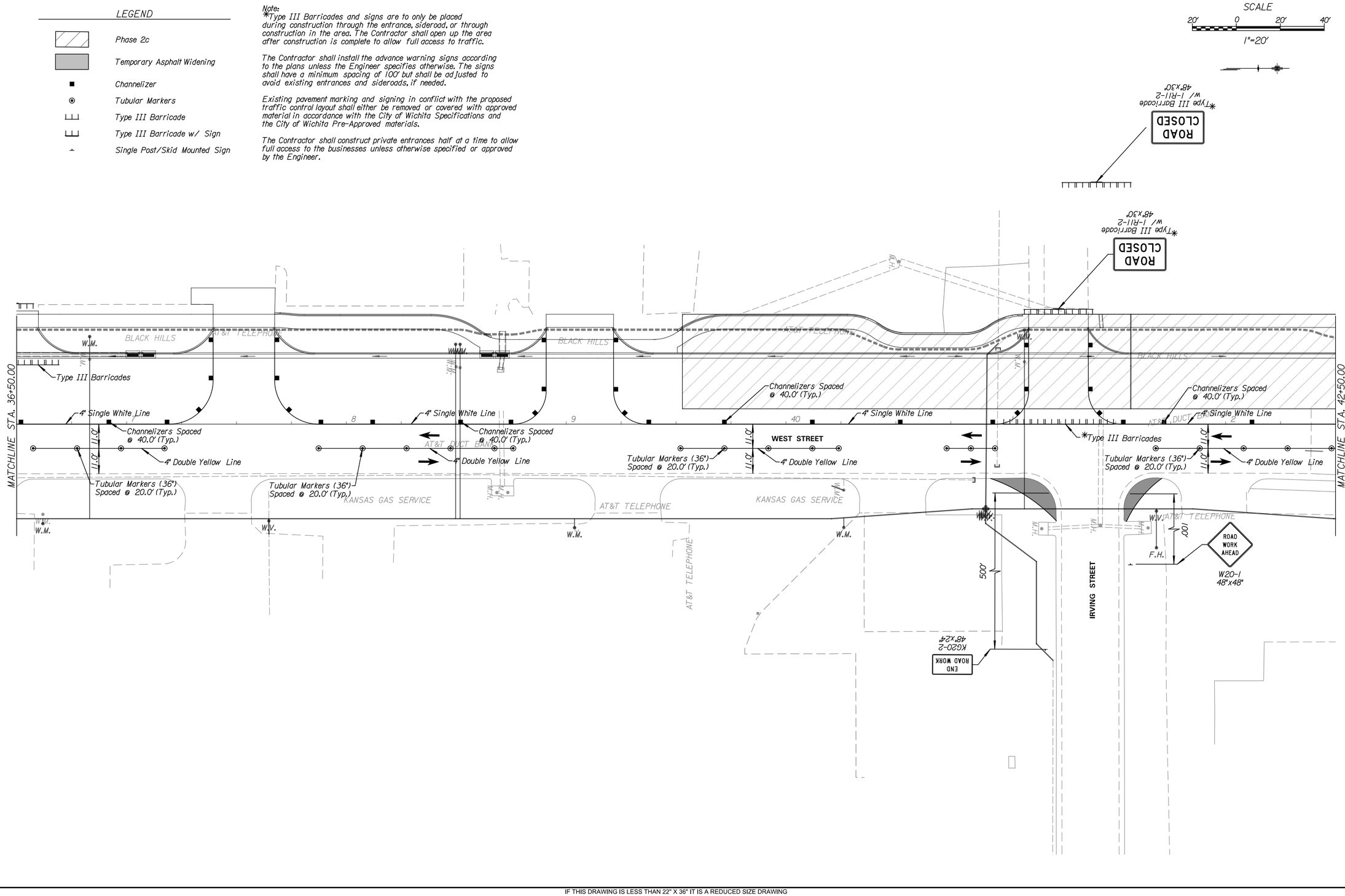
Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.

102

SHEET 102 OF 262

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

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2/25/2020 - 1:42:43 PM - c:\transystems\ow_local\transyscorp-pw1\mlonemet\d5\519510C-CPP-M01-13B.DGN

LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

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

MATCHLINE STA. 42+50.00

*Type III Barricade w/ I-R11-2 48"x30"
ROAD CLOSED

*Type III Barricade w/ I-R11-2 48"x30"
ROAD CLOSED

IRVING STREET

The Contractor shall close Irving Street only during construction through the intersection. The Contractor shall open up McCormick Street after the completionof the intersection to full traffic movements.

W20-1 48"x48"
ROAD WORK AHEAD

100'

AT&T TELEPHONE
W.M.
AT&T DUCT BANK
BLACK HILLS
KANSAS GAS SERVICE

Channelizers Spaced @ 40.0' (Typ.)
Type III Barricades
4" Single White Line
*Type III Barricades
4" Double Yellow Line
Tubular Markers (36") Spaced @ 20.0' (Typ.)

WEST STREET

Channelizers Spaced @ 20.0' (Typ.)
*Type III Barricades
4" Single Yellow Line
Exist. Pavement Markings

ROAD CLOSED
*Type III Barricade w/ I-R11-2 48"x30"

Channelizers Spaced @ 20.0' (Typ.)
4" Single White Line
4" Single Yellow Line
Exist. Pavement Markings
Exist. Pavement Marking Symbol

McCOMAS STREET
E.B. KELLOGG ON-RAMP

MATCHLINE STA. 48+50.00

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

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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS
CITY OF WICHITA

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PROJ NO:	472-85296
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DRAWN BY:	TAU
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SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.
103
SHEET 103 OF 262

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LEGEND

- Phase 2b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

W.B. KELLOGG ON-RAMP

E.B. KELLOGG OFF-RAMP

END ROAD WORK
KG20-2
48"x24"

500'

RIGHT LANE MUST TURN RIGHT
R3-7R
30"x30"

W1-4L
48"x48"

Channelizers Spaced @ 20.0' (Typ.)

11'-0"

4" Single White Line

Exist. Pavement Marking Symbol

Exist. Pavement Markings

Channelizers Spaced @ 40.0' (Typ.)

WEST STREET

MATCHLINE STA. 48+50.00

MATCHLINE STA. 54+50.00

E.B. KELLOGG ON-RAMP

W.B. KELLOGG OFF-RAMP

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FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2c

SHEET NO.
104
SHEET 104 OF 262

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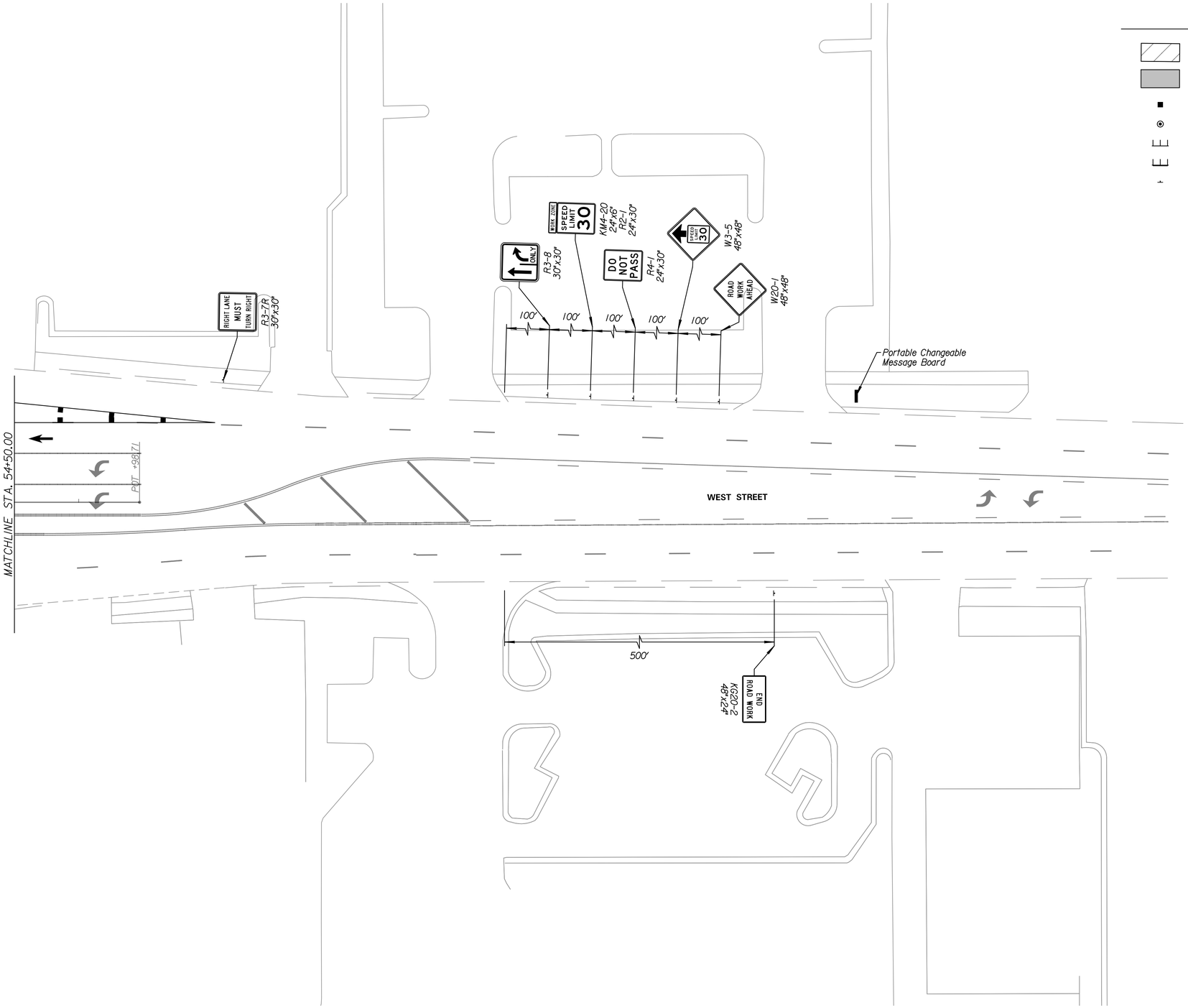
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2c

SHEET NO.

105

SHEET 105 OF 262

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

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LEGEND

- Phase 2c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

The Contractor shall utilize the existing traffic signal at Harry for this phase but shall install the temporary signal poles and signal heads. The signal heads shall be bagged until time for use.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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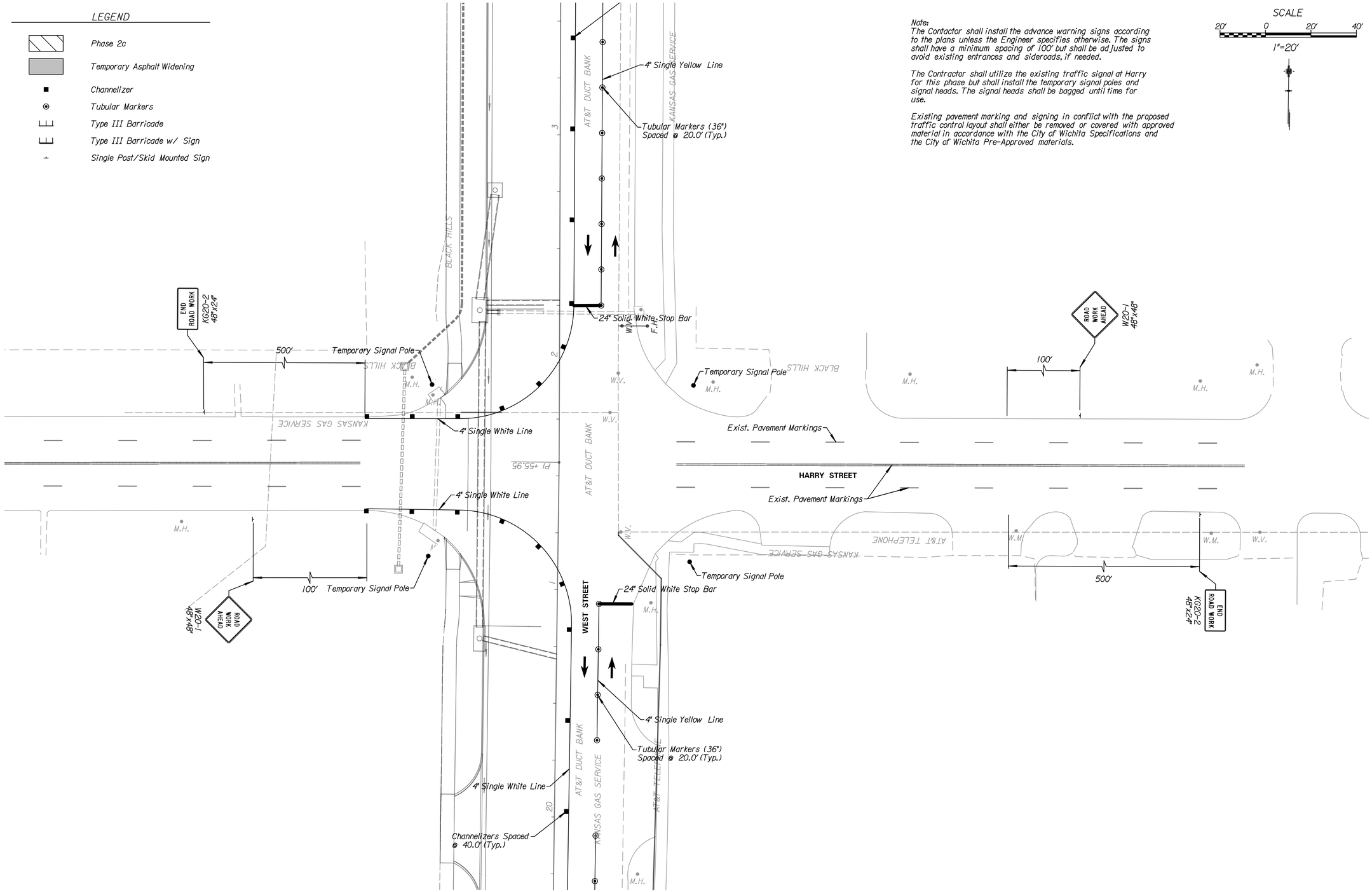

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

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CITY OF WICHITA

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SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 2c

SHEET NO.
106
SHEET 106 OF 262

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

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to the lane shift, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that a shift in traffic is expected on by a specified date letting them know the right lane will be closed.

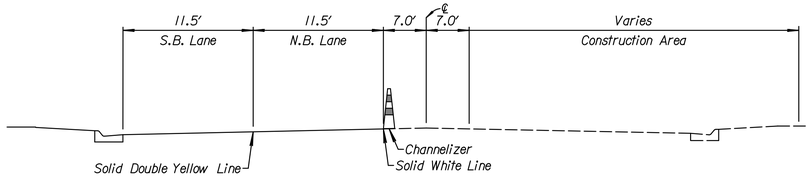
Upong the lane shift change, the Contactor shall adjust to message in accordance with the Engineer to warn travellers that the right lane is closed ahead merge right.

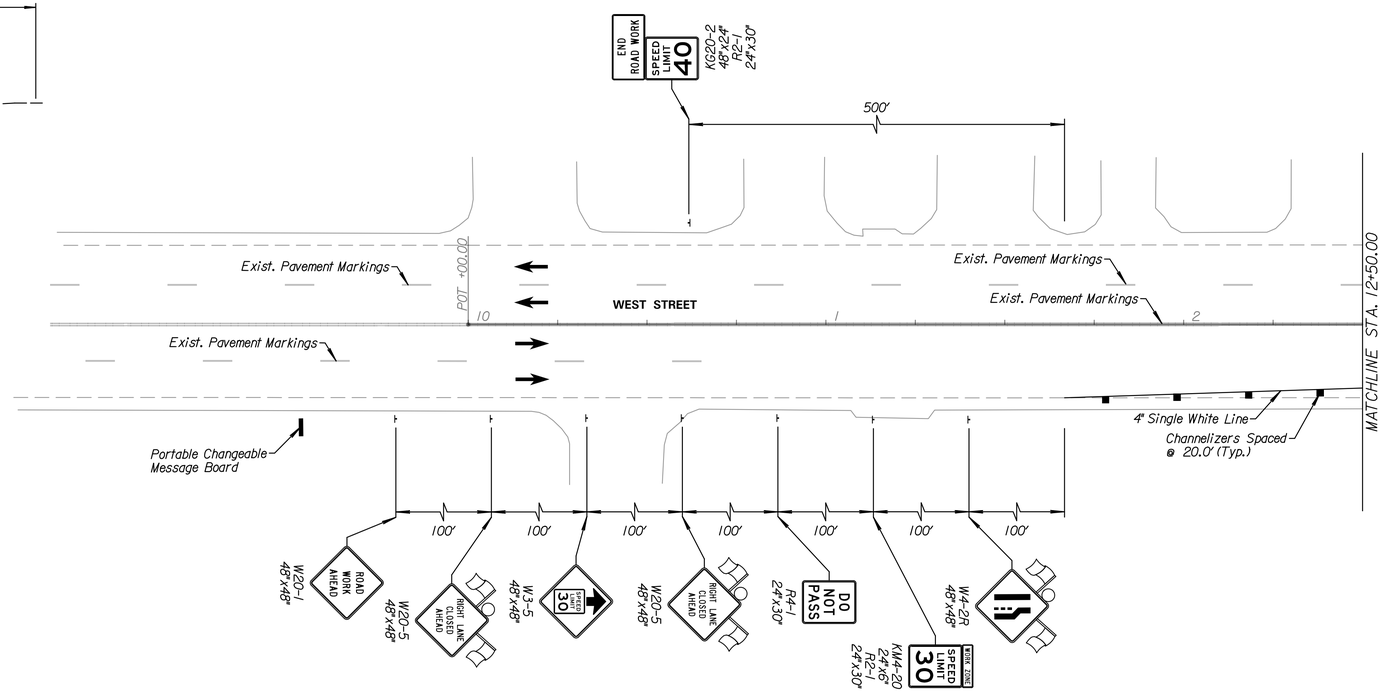
Phase 3a

Phase 3a construction shall construct the intersection of Irving Street and approx. 190' south to a transverse joint and north to the project limits. This phase will also construct the intersection of West Street and McCormick Street. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at both Walker Street and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

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

Typical Section Phase 3a





TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.
107
SHEET 107 OF 262

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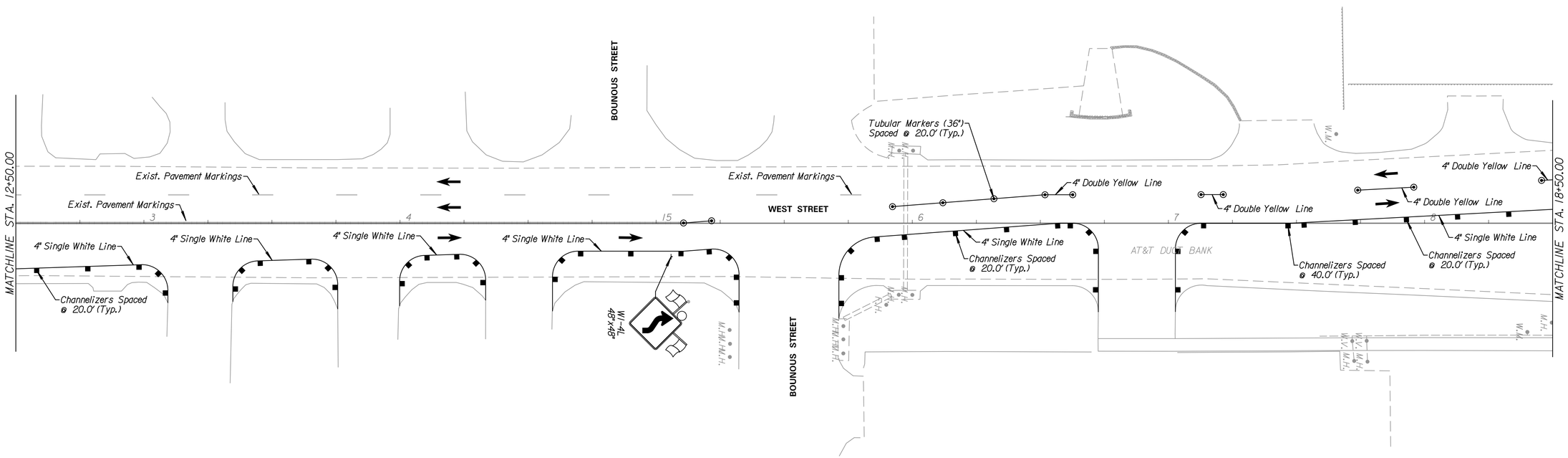
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.
108
SHEET 108 OF 262

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

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

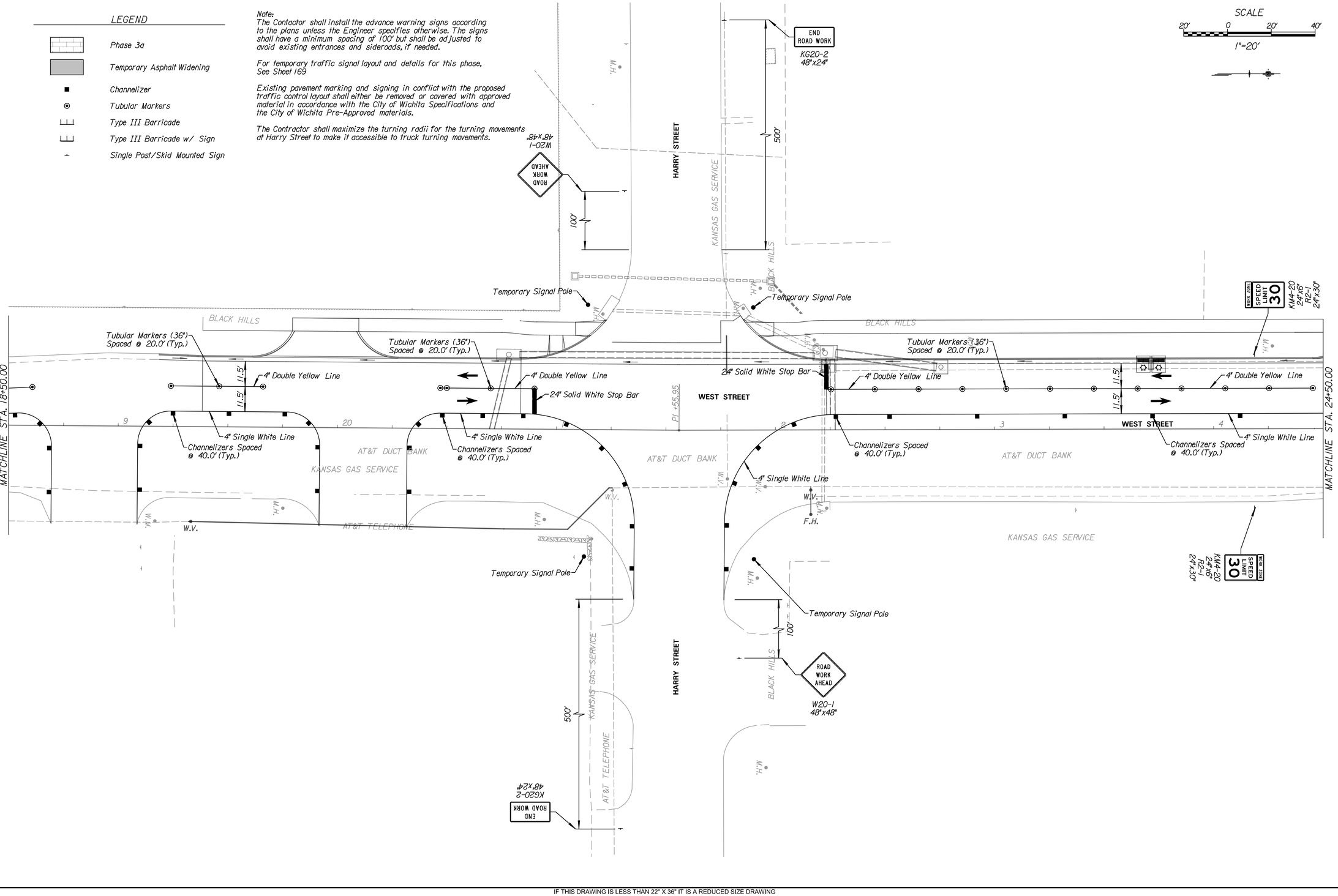
Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For temporary traffic signal layout and details for this phase, See Sheet 169

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall maximize the turning radii for the turning movements at Harry Street to make it accessible to truck turning movements.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5829

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3a

SHEET NO.
109

SHEET 109 OF 262

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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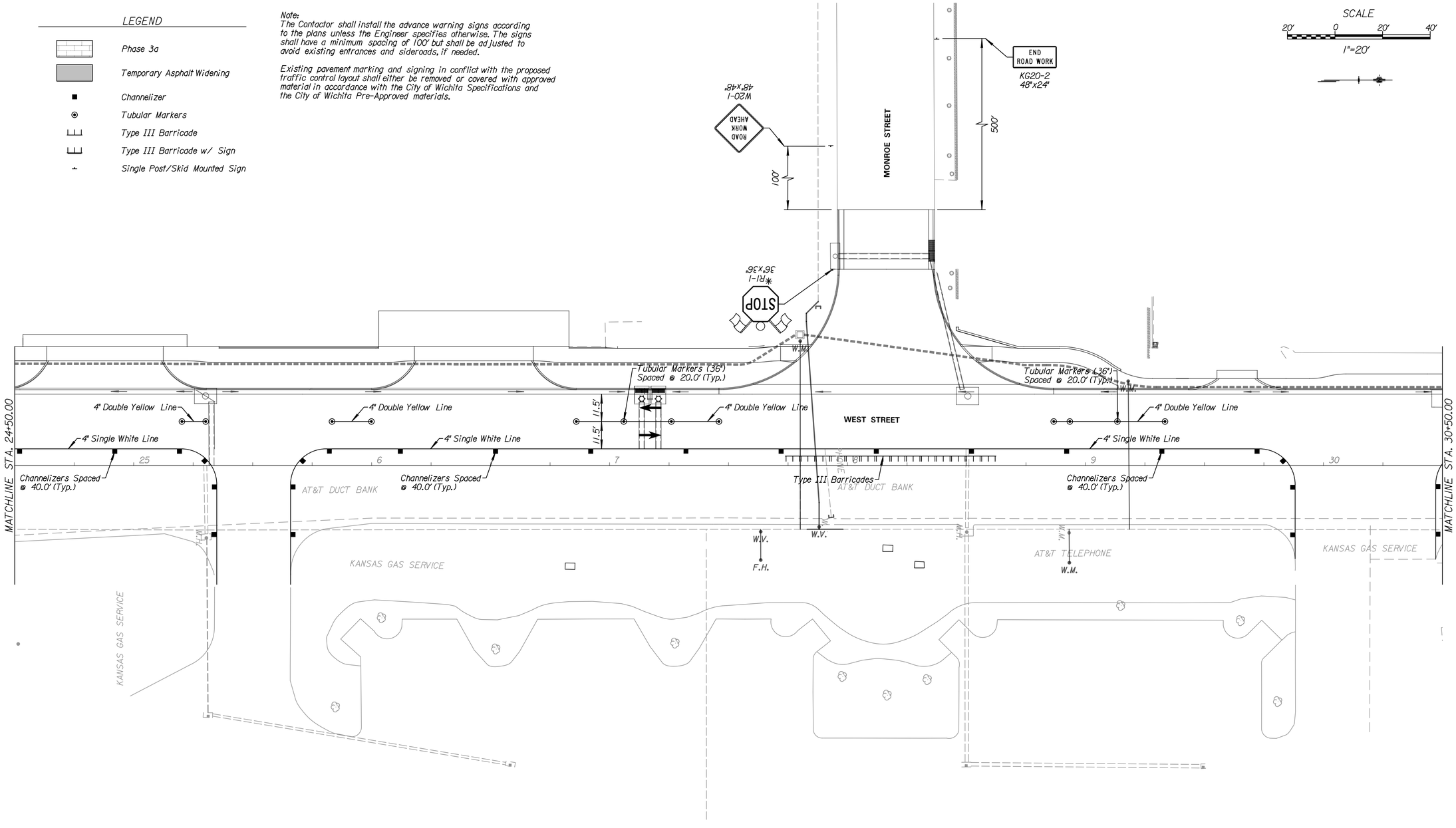
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.

110

SHEET 110 OF 262

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

LEGEND

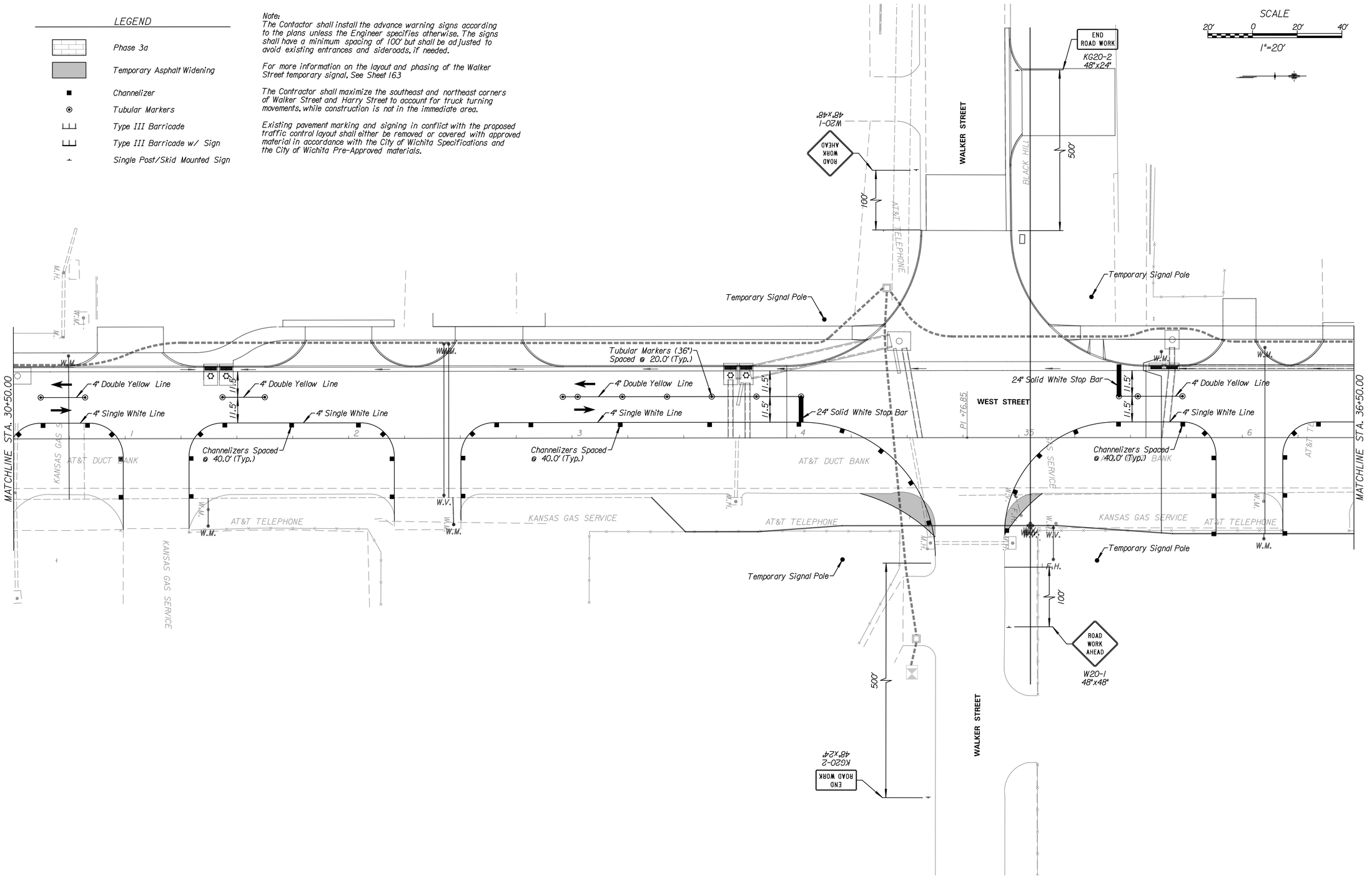
- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 163

The Contractor shall maximize the southeast and northeast corners of Walker Street and Harry Street to account for truck turning movements, while construction is not in the immediate area.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.

111

SHEET 111 OF 262

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

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

One (1) week prior to the closure of Irving Street, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn traffic that Irving Street will be closed and they shall use Walker Street as a detour.

When construction commences the portable changeable message board shall inform traffic to use the Walker Street intersection as a detour. The message shall be determined by the Engineer unless otherwise noted on the plans.

SCALE
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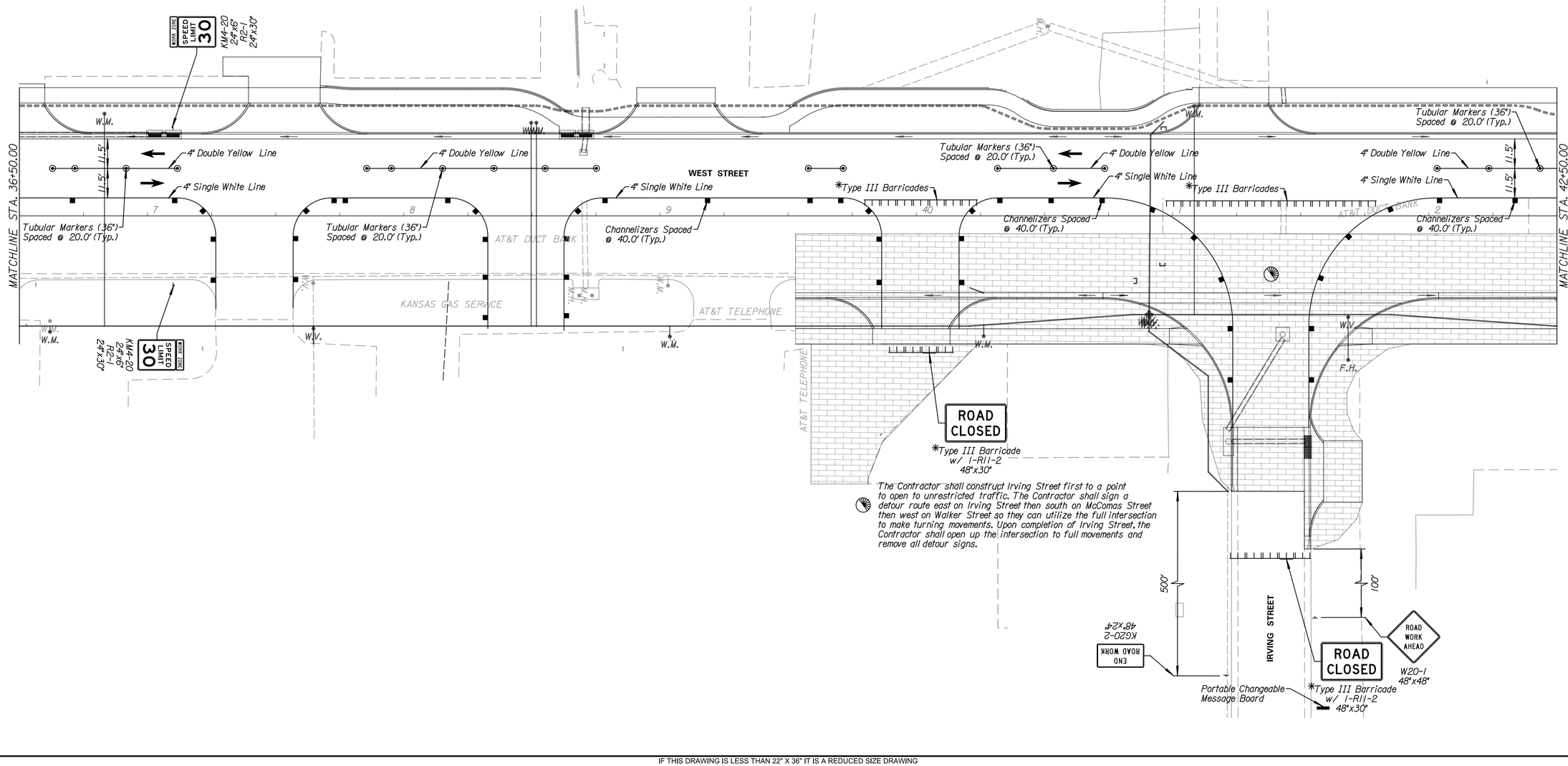
1"=20'



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245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

City of WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.
112
SHEET 112 OF 262

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

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

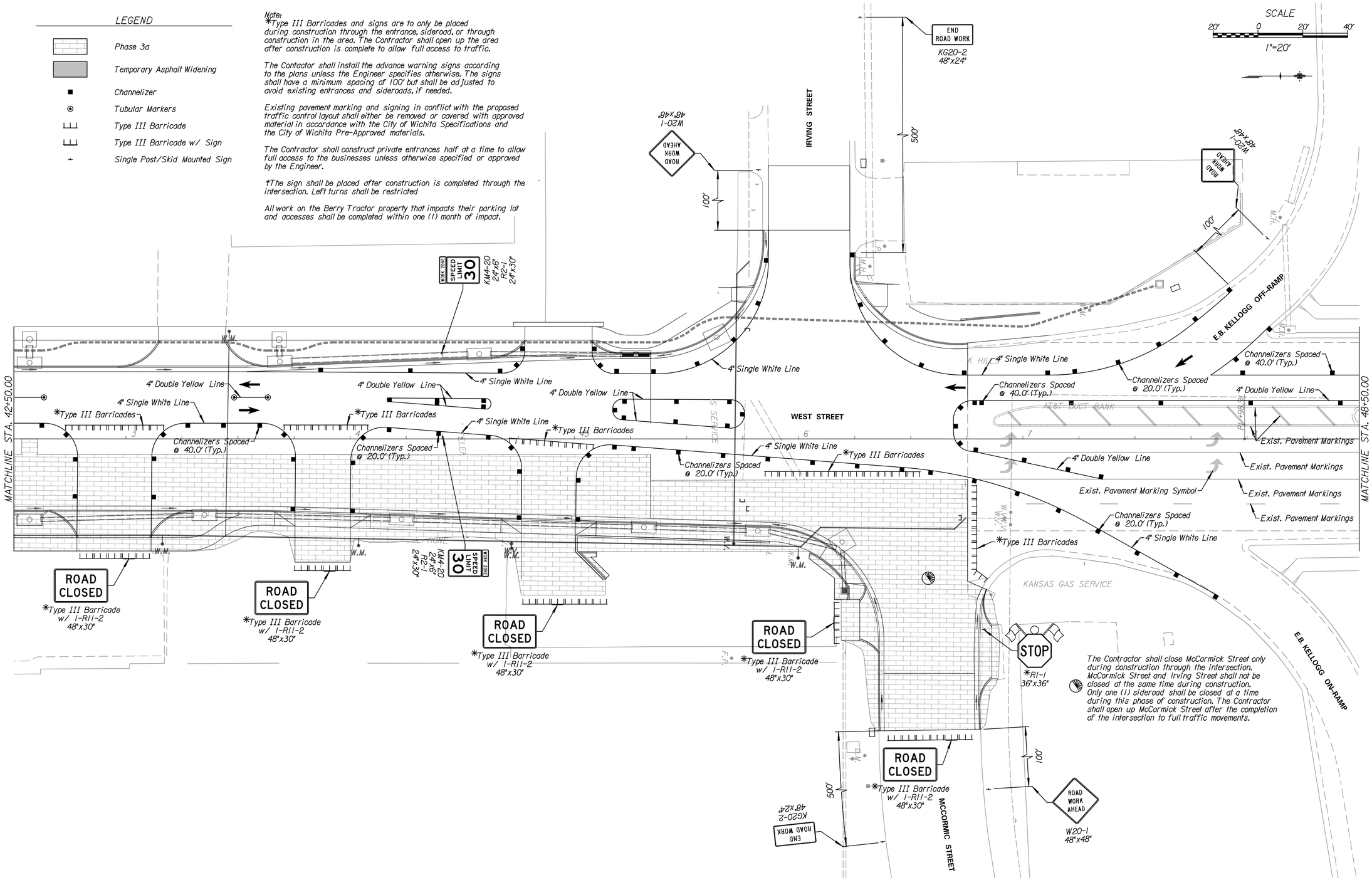
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

†The sign shall be placed after construction is completed through the intersection. Left turns shall be restricted

All work on the Berry Tractor property that impacts their parking lot and accesses shall be completed within one (1) month of impact.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.

113

SHEET 113 OF 262

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

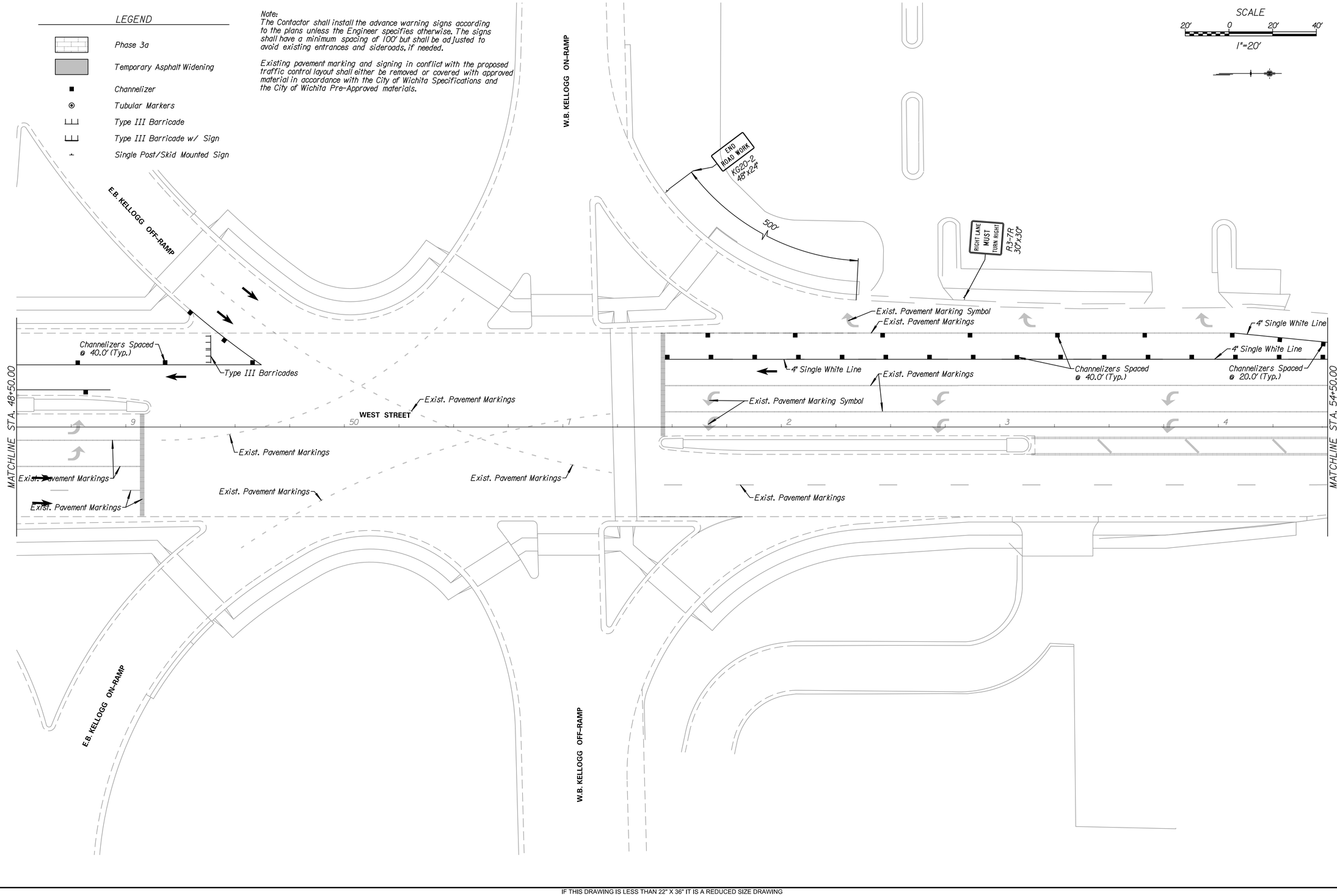
LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.
114
SHEET 114 OF 262

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

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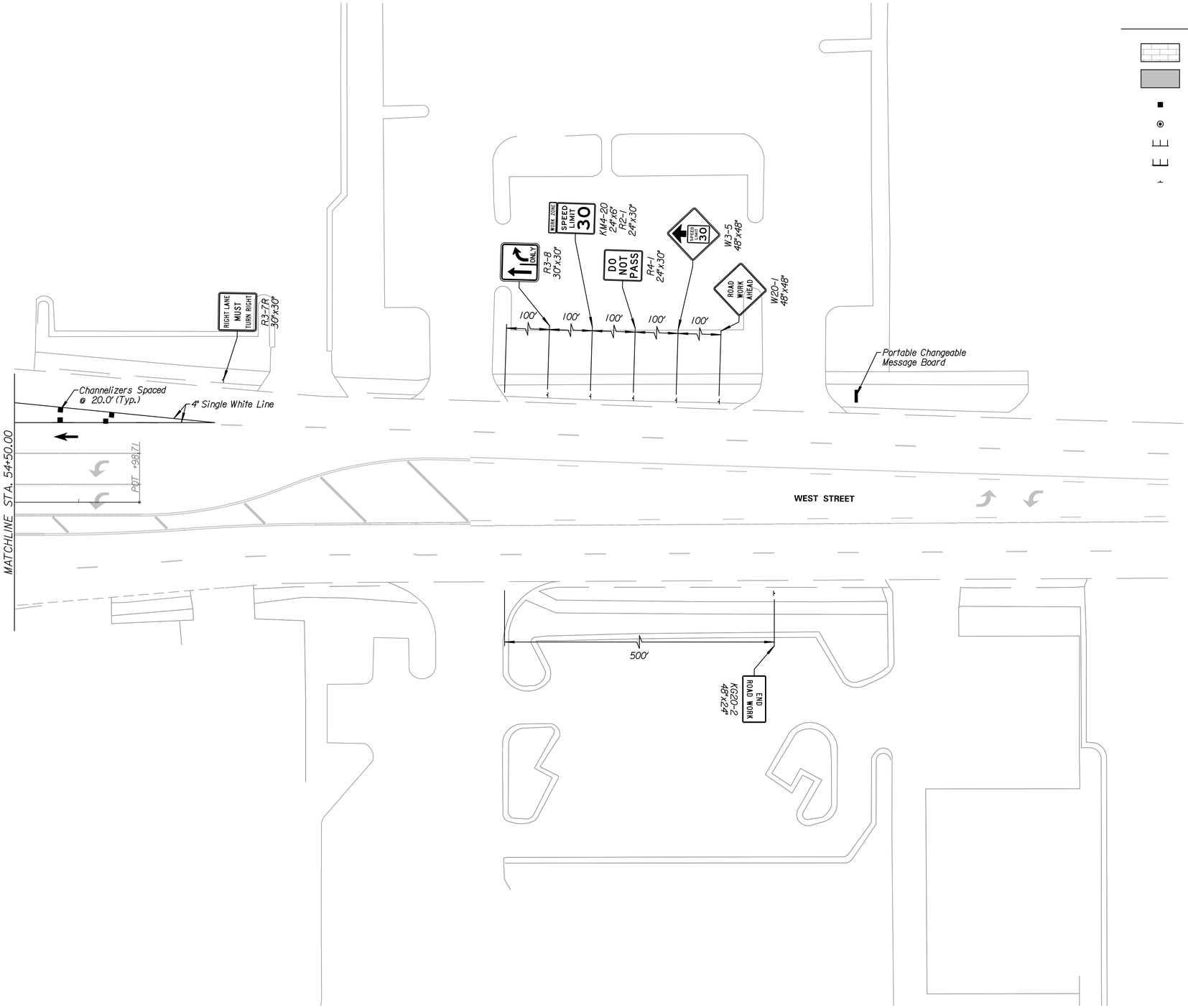

LEGEND

- Phase 3a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

When construction commences the portable changeable message board shall warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3a

SHEET NO.

115

SHEET 115 OF 262

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

LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

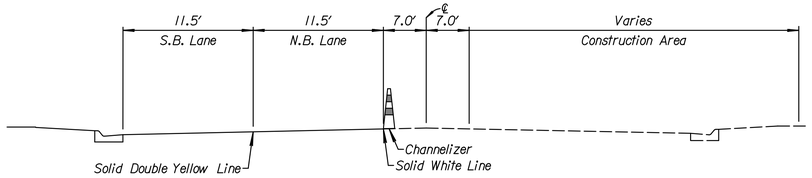
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

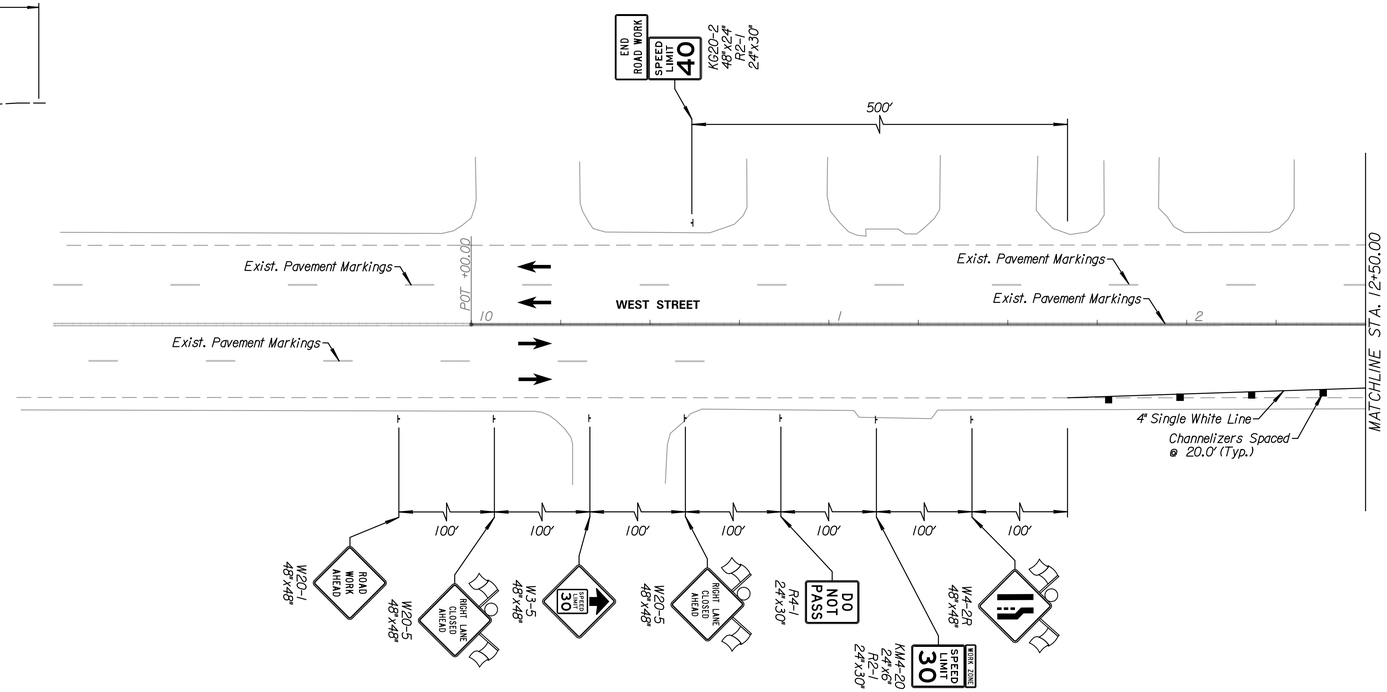
Phase 3b

Phase 3b construction shall construct the intersection of Walker Street and approx. 190' north to a transverse joint that was constructed in Phase 3a and south to the intersection of Harry Street. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at both Walker Street and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

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

Typical Section Phase 3b





TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5829

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.
116
SHEET 116 OF 262

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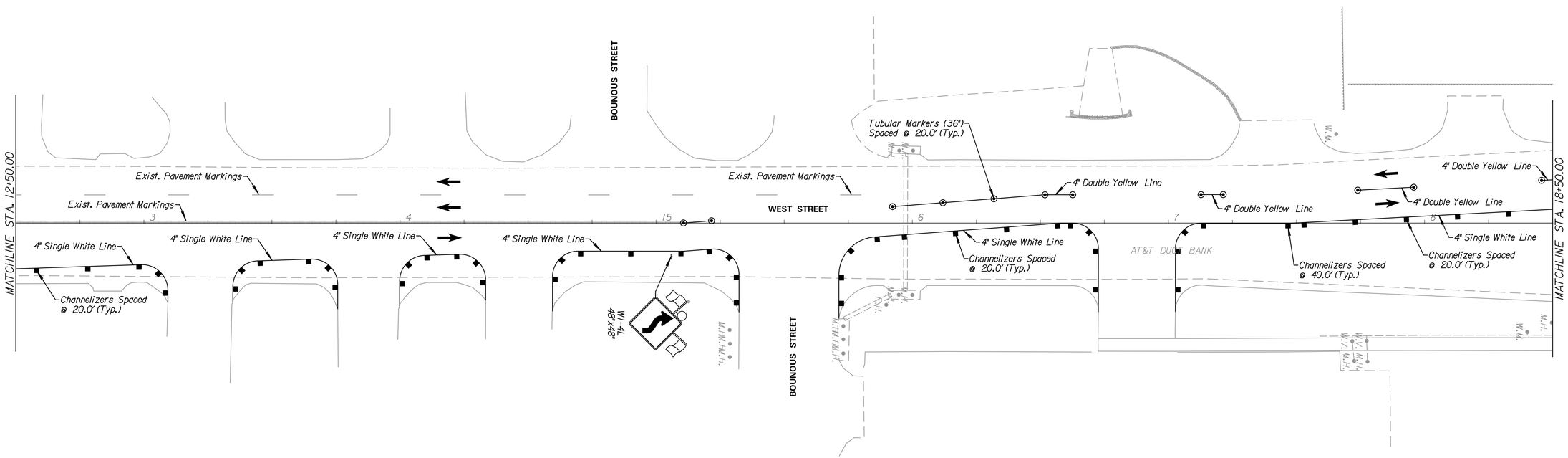
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3b

SHEET NO.
117
SHEET 117 OF 262

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

Phase 3b

Temporary Asphalt Widening

Channelizer

Tubular Markers

Type III Barricade

Type III Barricade w/ Sign

Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For temporary traffic signal location and phasing for this phase, See Sheet 169

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall maximize the turning radii for the turning movements at Harry Street to make it accessible to truck turning movements.

For Harry Street advance warning sign placement detail, See Sheet 125

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

Exist. Pavement Markings
4" Double Yellow Line
HARRY STREET
KANSAS GAS SERVICE
BLACK HILLS
24" Solid White Stop Bar
Temporary Signal Pole
WORK ZONE SPEED LIMIT 30
KM4-20 24"x16" R2-1 24"x30"
Tubular Markers (36") Spaced @ 20.0' (Typ.)
11.5'
4" Double Yellow Line
24" Solid White Stop Bar
WEST STREET
PI =55.95
4" Single White Line
Channelizers Spaced @ 40.0' (Typ.)
AT&T DUCT BANK
KANSAS GAS SERVICE
AT&T TELEPHONE
W.V.
F.H.
MATCHLINE STA. 18+50.00
MATCHLINE STA. 24+50.00
9
20
2
3
4
ROAD CLOSED
*Type III Barricade w/ 1-R11-2 48"x30"
The Contractor shall construct the improvements at Harry Street to the full depth concrete line before proceeding with the remaining construction. Harry Street shall be opened to full traffic movements as quickly as possible to minimize the impact.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.
118
SHEET 118 OF 262

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

LEGEND

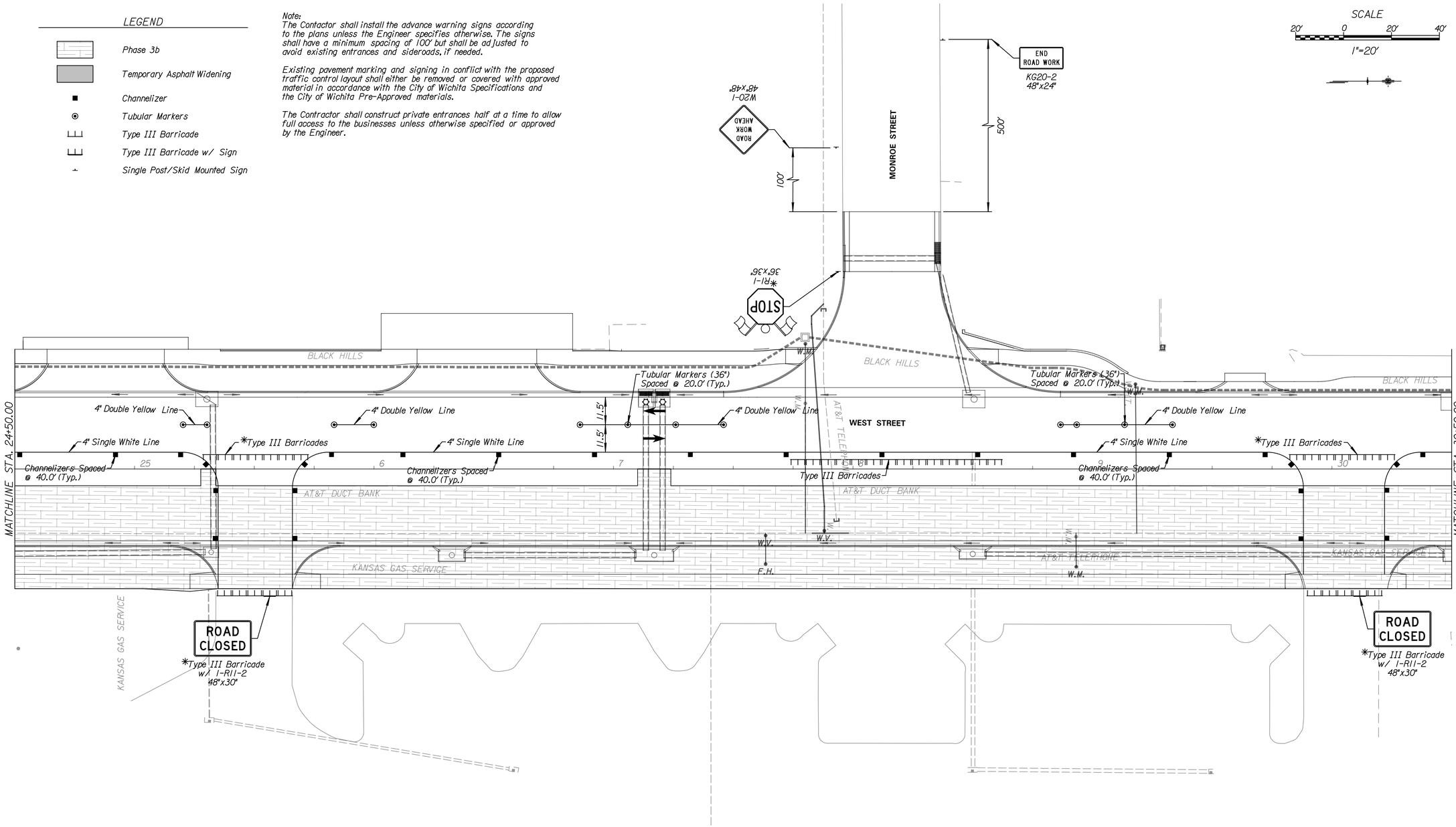
- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

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



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245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.
119
SHEET 119 OF 262

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

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LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 163

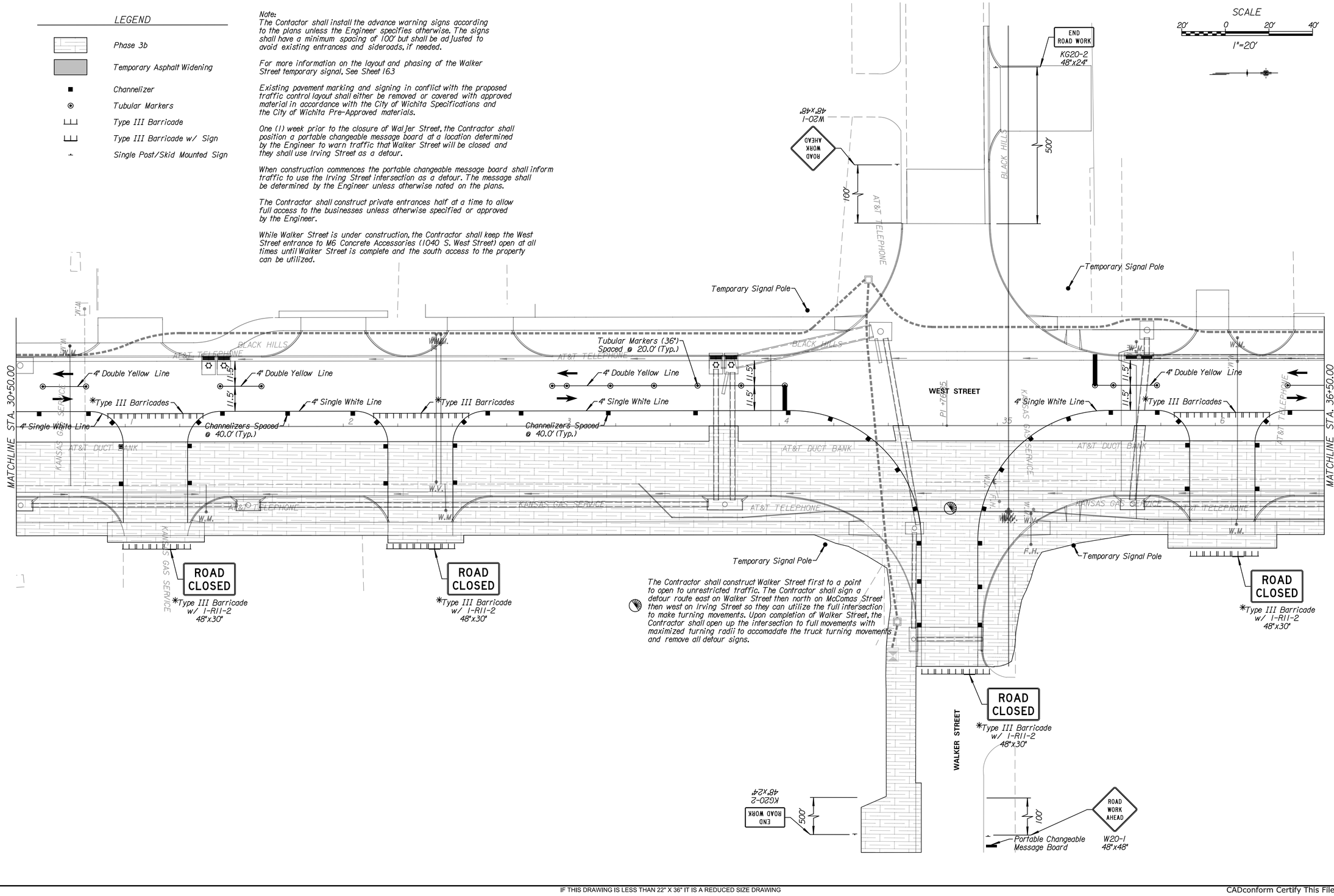
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to the closure of Walker Street, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn traffic that Walker Street will be closed and they shall use Irving Street as a detour.

When construction commences the portable changeable message board shall inform traffic to use the Irving Street intersection as a detour. The message shall be determined by the Engineer unless otherwise noted on the plans.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

While Walker Street is under construction, the Contractor shall keep the West Street entrance to M6 Concrete Accessories (1040 S. West Street) open at all times until Walker Street is complete and the south access to the property can be utilized.



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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3b

SHEET NO.

120

SHEET 120 OF 262

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LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

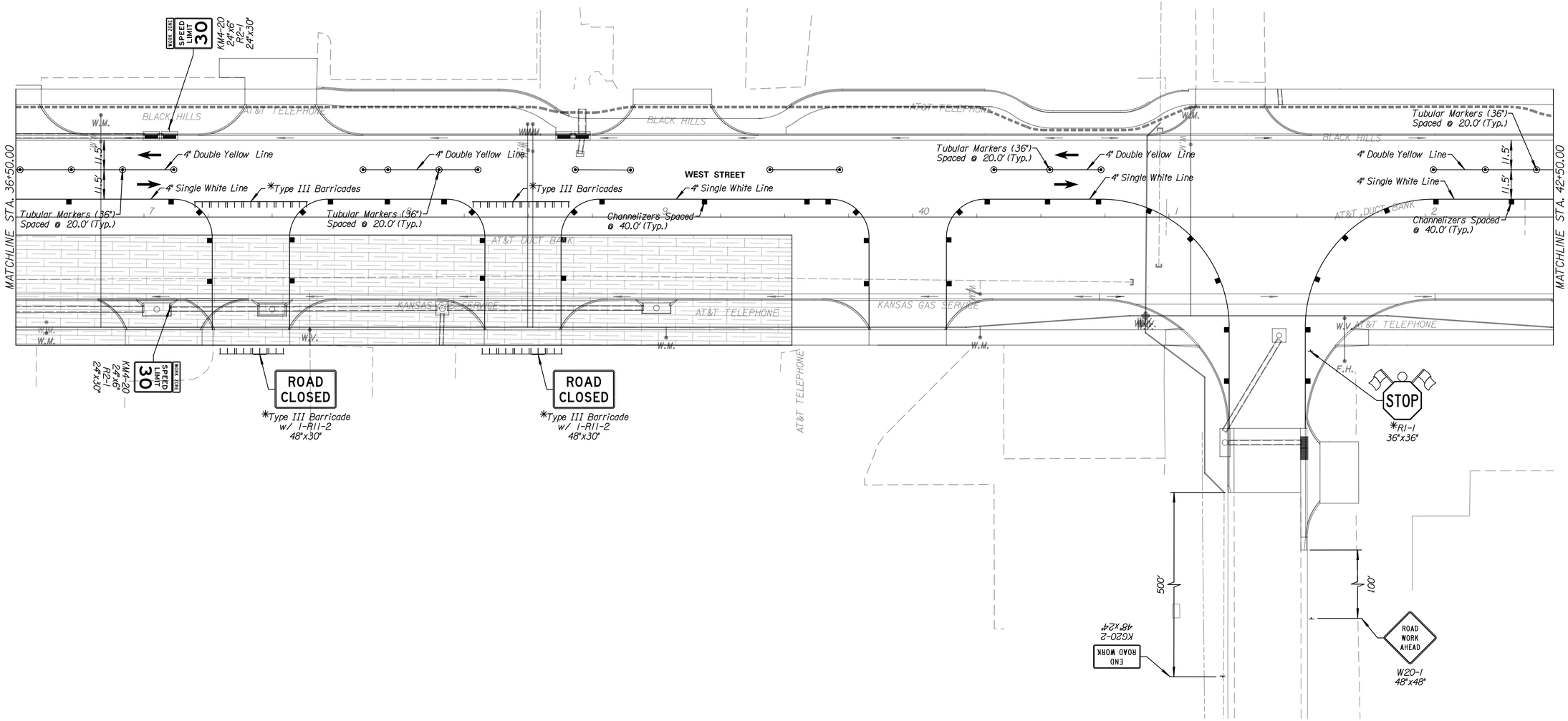
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

The Contractor shall maximize the turning radii for the turning movements at Irving Street to make it accessible to truck turning movements.

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



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SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.
121
SHEET 121 OF 262

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

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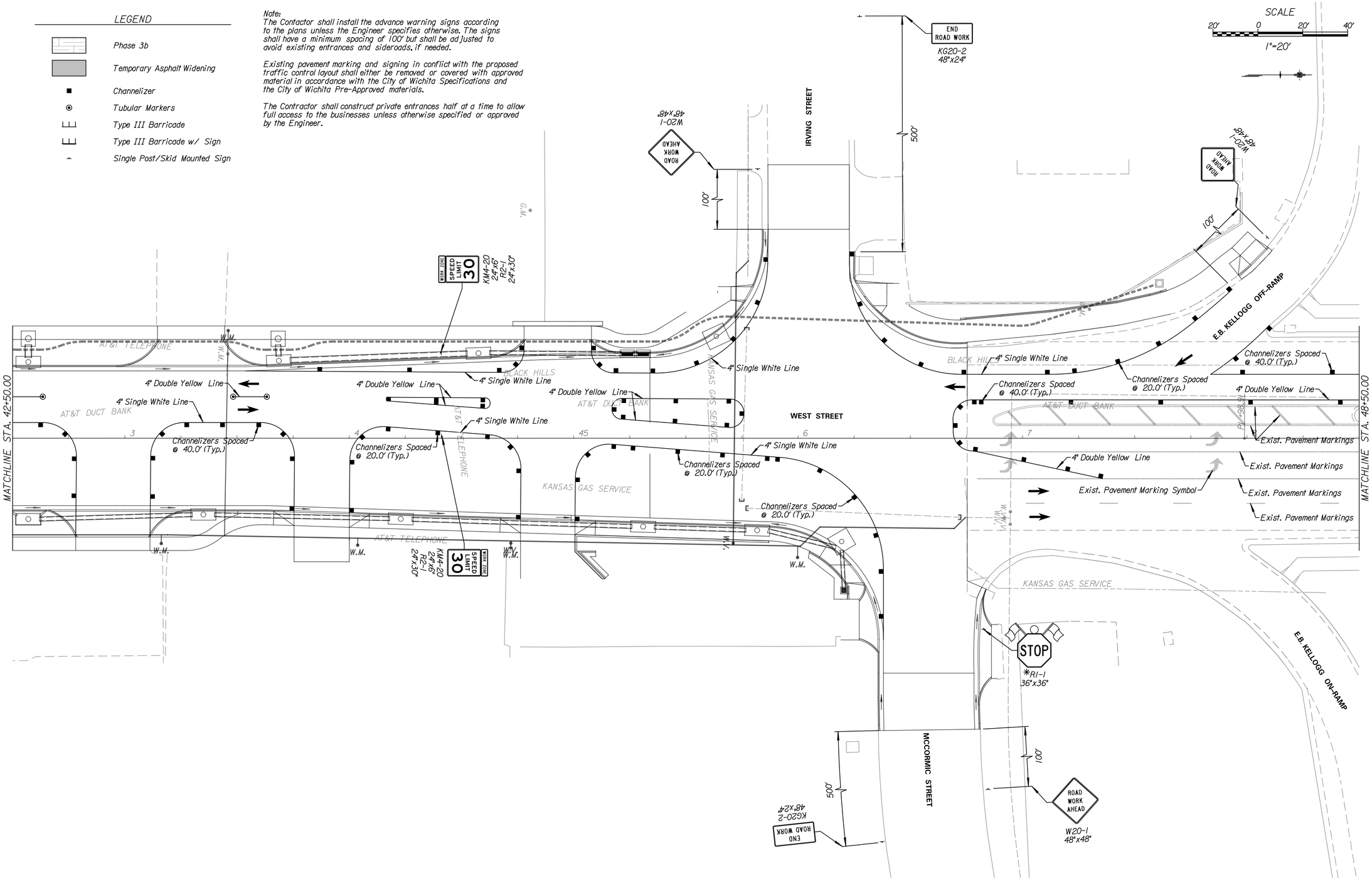
LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.



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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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PROJ NO:	472-85296
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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3b

SHEET NO.

122

SHEET 122 OF 262

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

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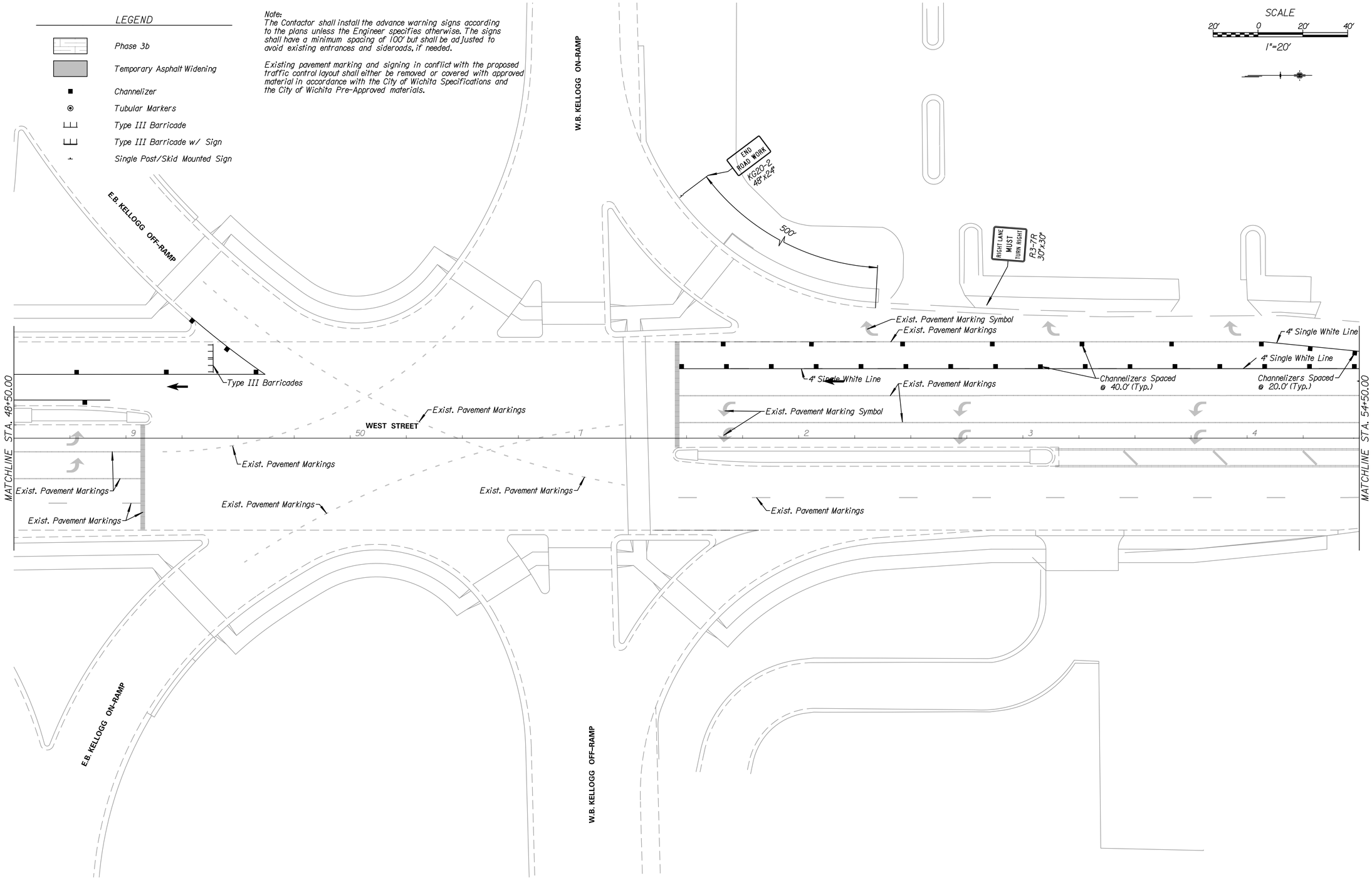
LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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FAX: 316-462-5629

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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MARK	DATE	DESCRIPTION

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.

123

SHEET 123 OF 262

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

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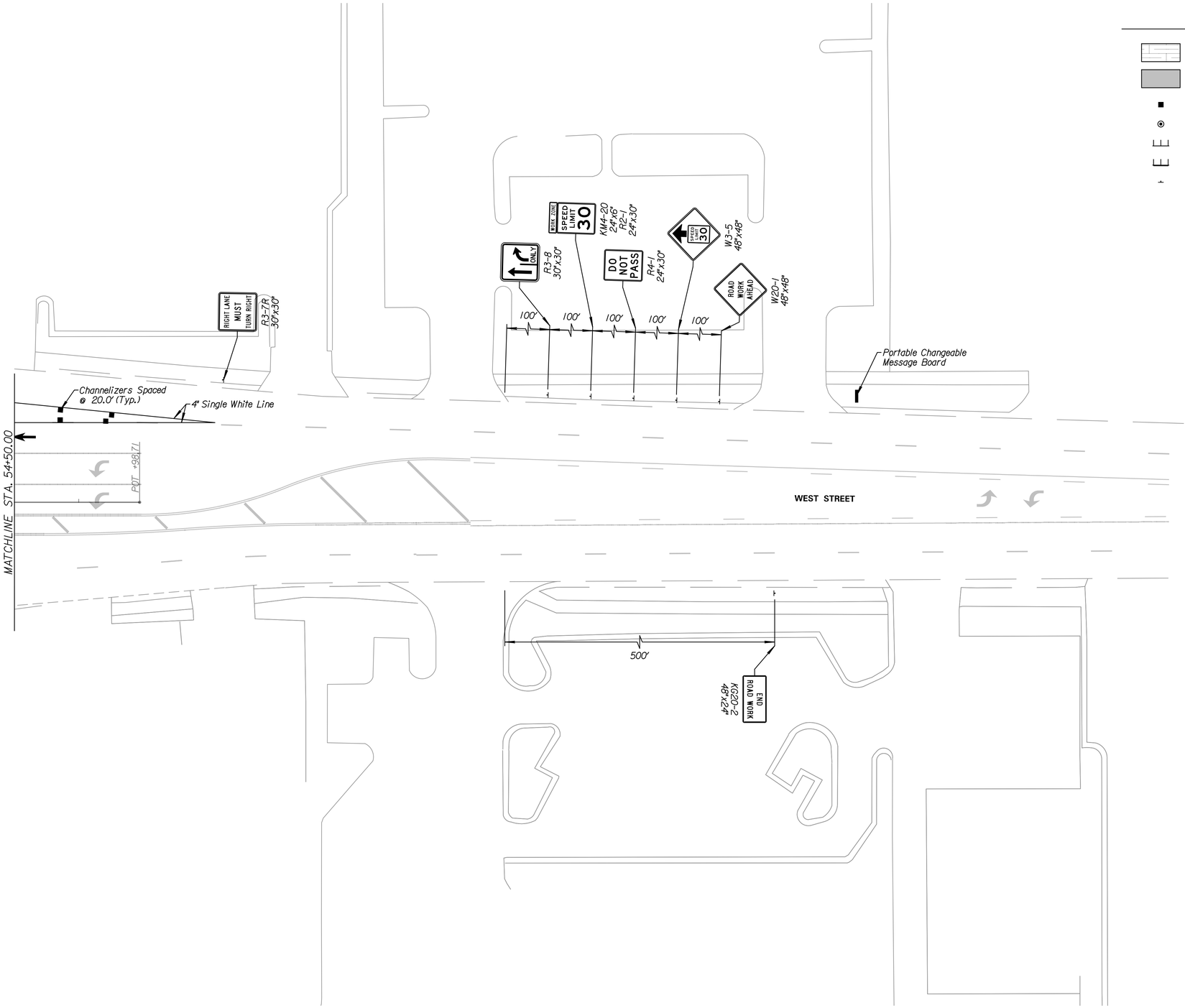

LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3b

SHEET NO.

124

SHEET 124 OF 262

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

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LEGEND

- Phase 3b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For temporary traffic signal location and phasing for this phase, See Sheet 169

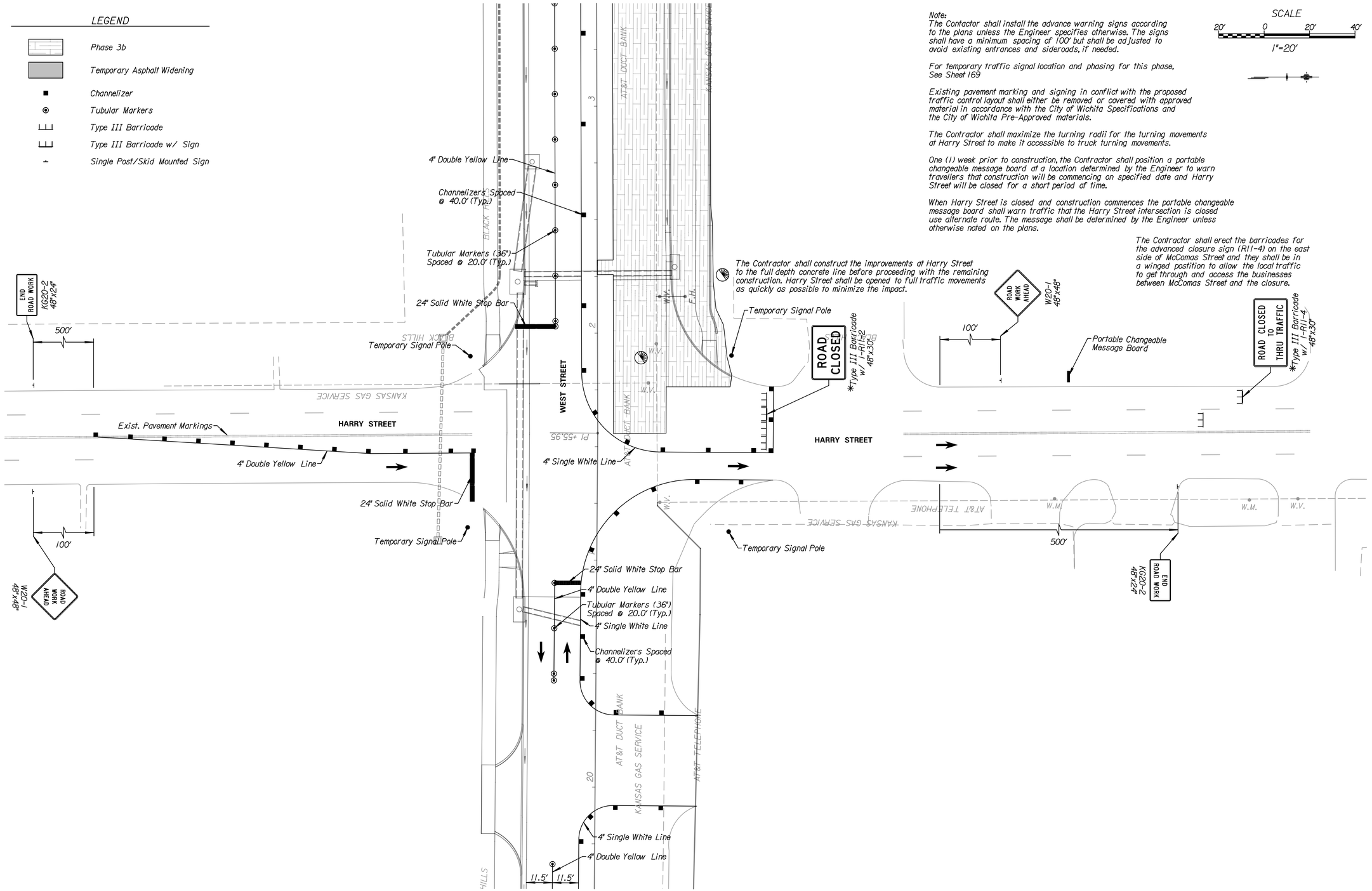
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall maximize the turning radii for the turning movements at Harry Street to make it accessible to truck turning movements.

One (1) week prior to construction, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn travellers that construction will be commencing on specified date and Harry Street will be closed for a short period of time.

When Harry Street is closed and construction commences the portable changeable message board shall warn traffic that the Harry Street intersection is closed use alternate route. The message shall be determined by the Engineer unless otherwise noted on the plans.

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



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245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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PROJ NO:	472-85296
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SHEET TITLE:
WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3b

SHEET NO.
125
SHEET 125 OF 262

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

LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

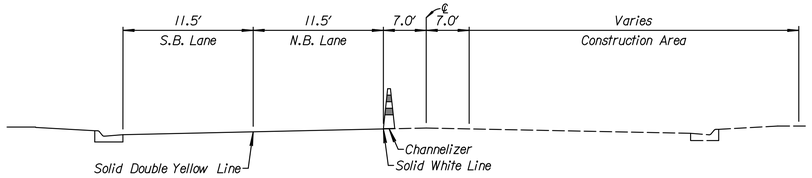
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

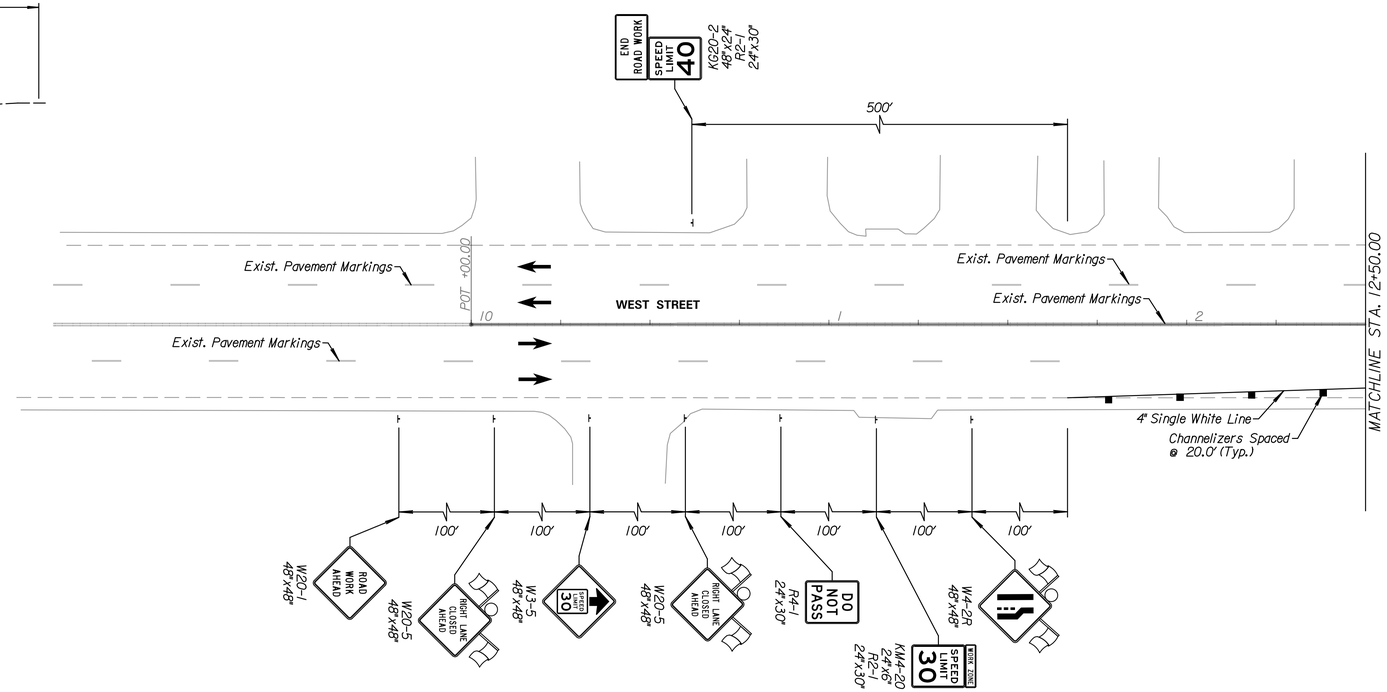
Phase 3c

Phase 3c construction shall construct from the center line of Harry Street south to the south project limits. During this phase the traffic will be head to head on the newly constructed pavement from Phase 2. Temporary traffic signals will be utilized at and Harry Street to accommodate the traffic shift. Major items of work shall include but not limited to concrete pavement, curb and gutter, storm sewer, pavement marking and signing, and grading.

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

Typical Section Phase 3c





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FAX: 316-462-5629

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
126
SHEET 126 OF 262

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

LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

SCALE
20' 0 20' 40'
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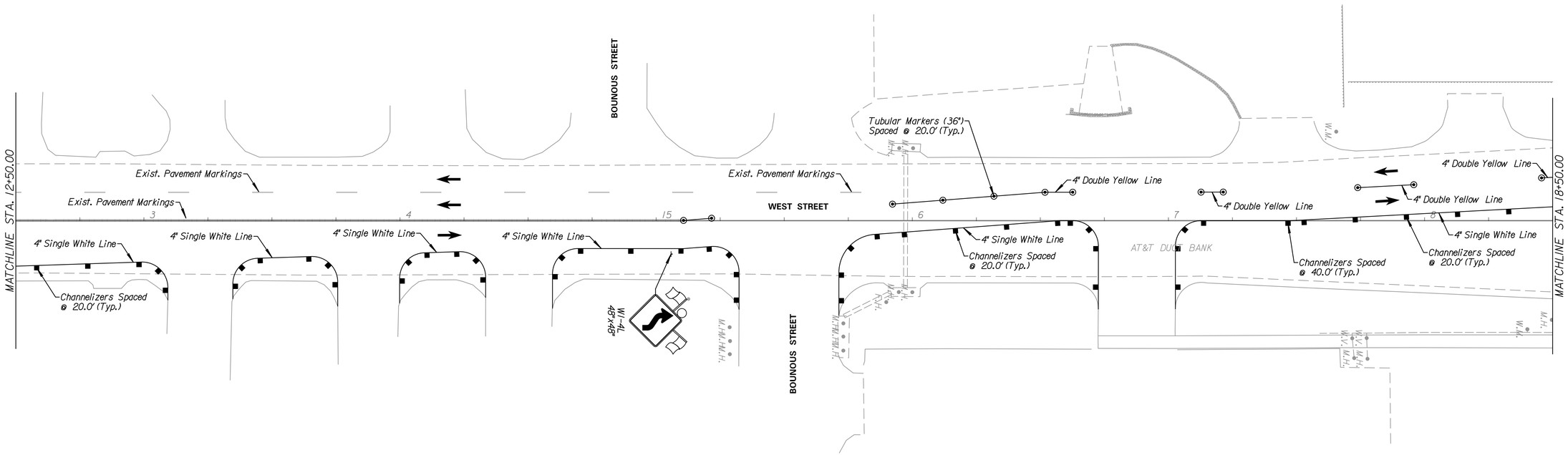

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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
127
SHEET 127 OF 262

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

Phase 3c

Temporary Asphalt Widening

Channelizer

Tubular Markers

Type III Barricade

Type III Barricade w/ Sign

Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

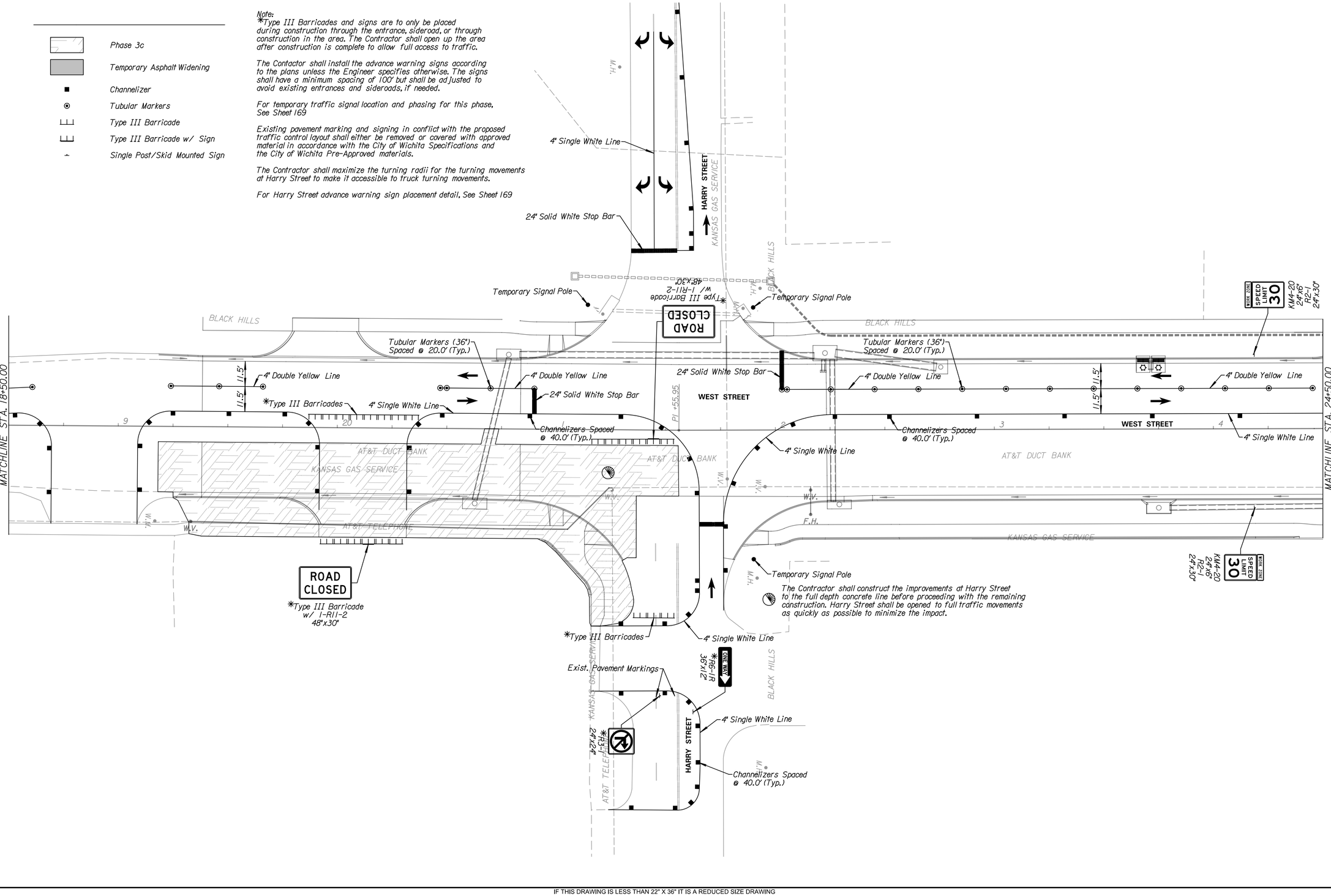
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For temporary traffic signal location and phasing for this phase, See Sheet 169

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall maximize the turning radii for the turning movements at Harry Street to make it accessible to truck turning movements.

For Harry Street advance warning sign placement detail, See Sheet 169



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SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.

128

SHEET 128 OF 262

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

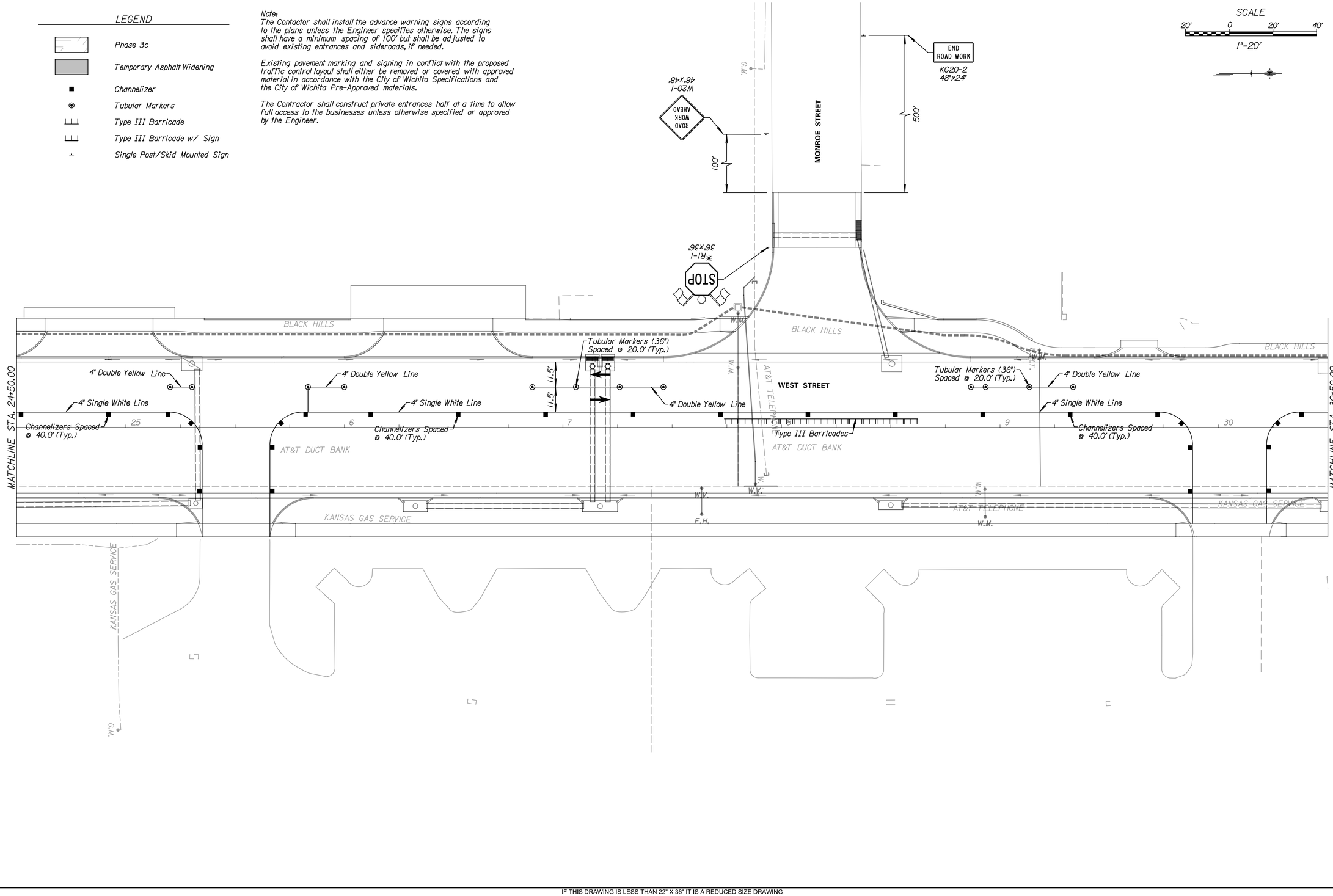
LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.



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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.

129

SHEET 129 OF 262

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

LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet 163

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to the closure of Walker Street, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn traffic that Walker Street will be closed and they shall use Irving Street as a detour.

When construction commences the portable changeable message board shall inform traffic to use the Irving Street intersection as a detour. The message shall be determined by the Engineer unless otherwise noted on the plans.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

SCALE
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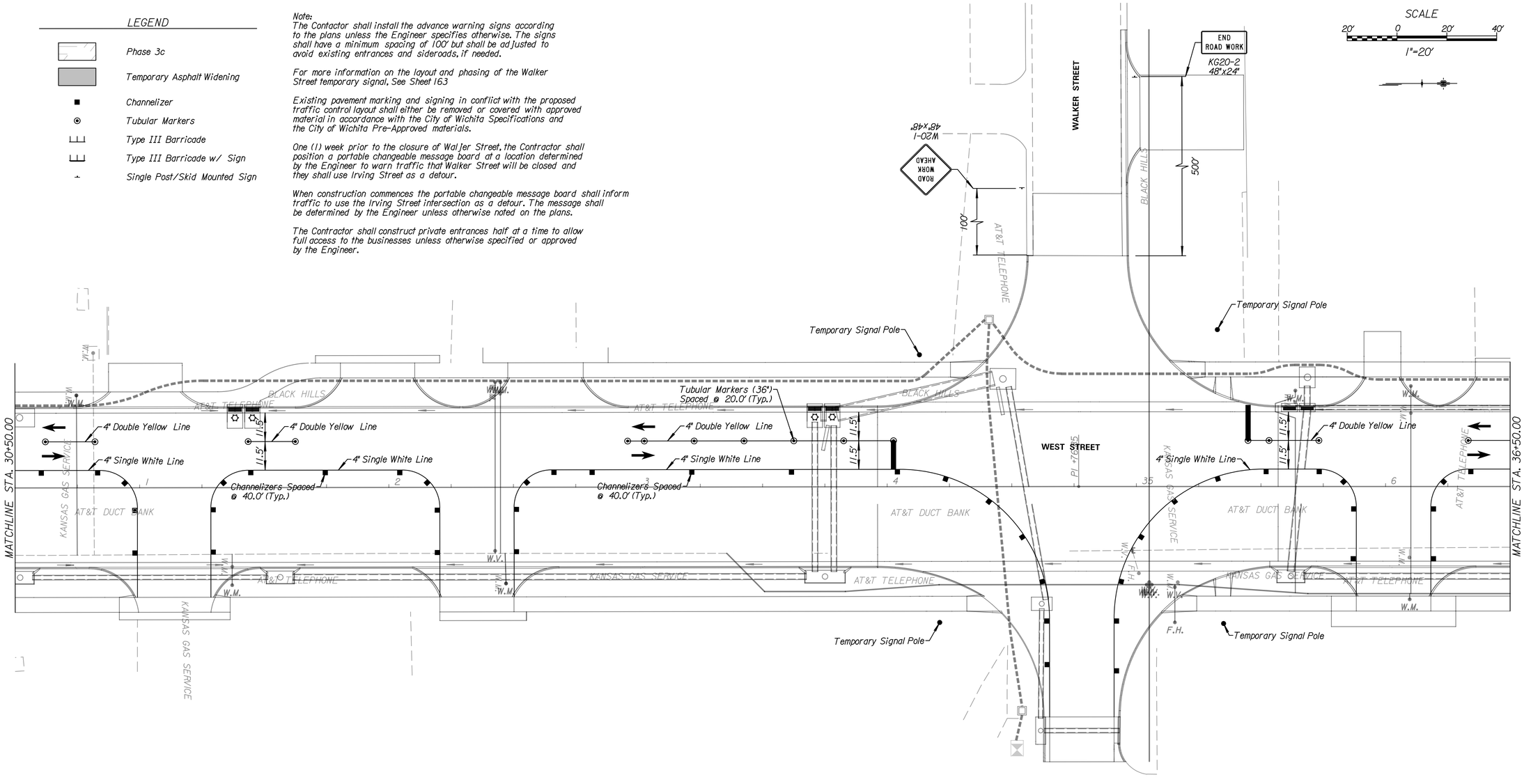
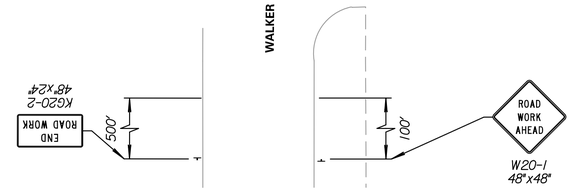
1"=20'





TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
130

SHEET 130 OF 262

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

CADconform Certify This File

LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

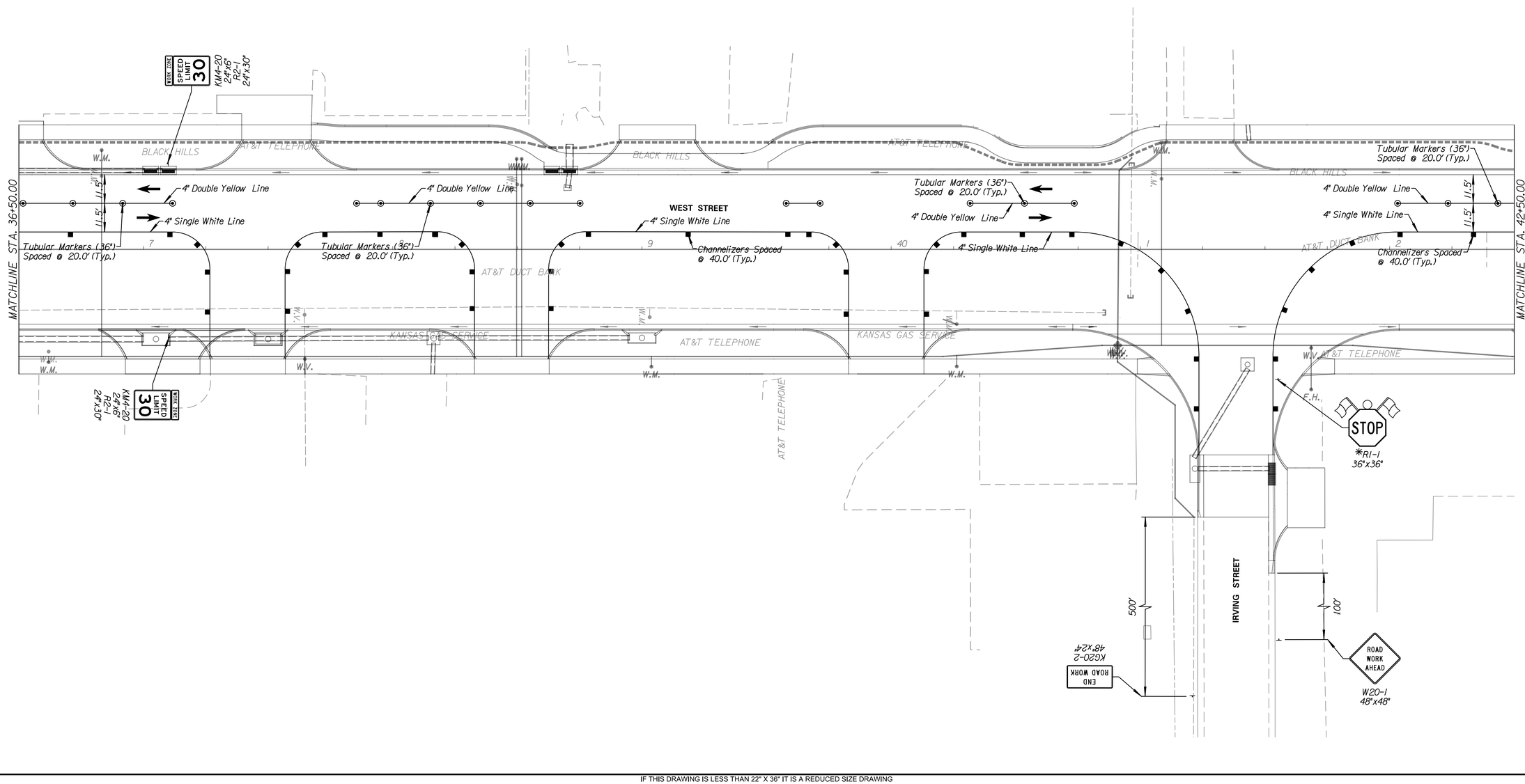
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.

The Contractor shall maximize the turning radii for the turning movements at Irving Street to make it accessible to truck turning movements.

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



TranSystems
245 NORTH WACO
SUITE 222
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
131
SHEET 131 OF 262

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

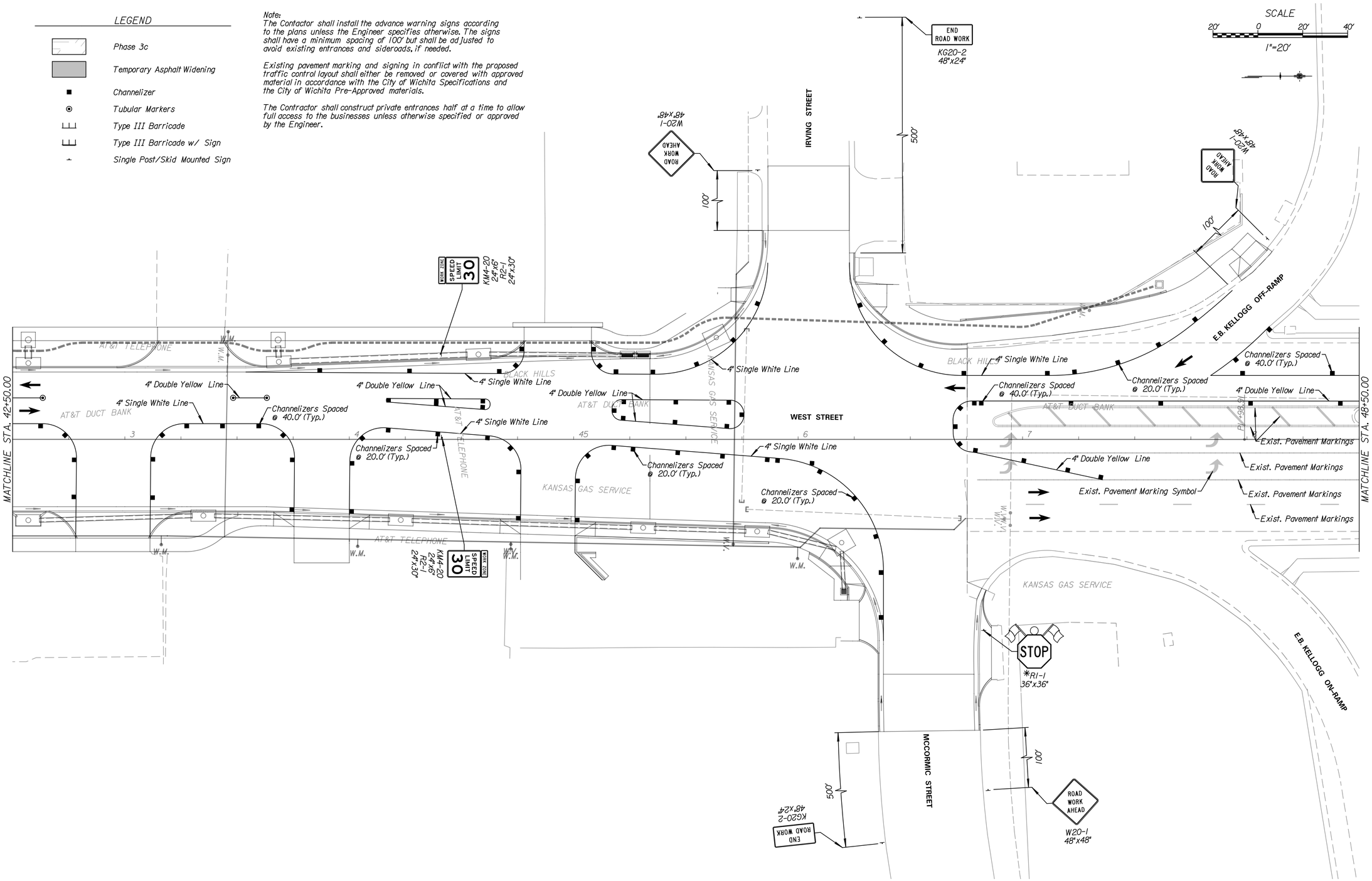
LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall construct private entrances half at a time to allow full access to the businesses unless otherwise specified or approved by the Engineer.



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SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 3c

SHEET NO.

132

SHEET 132 OF 262

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

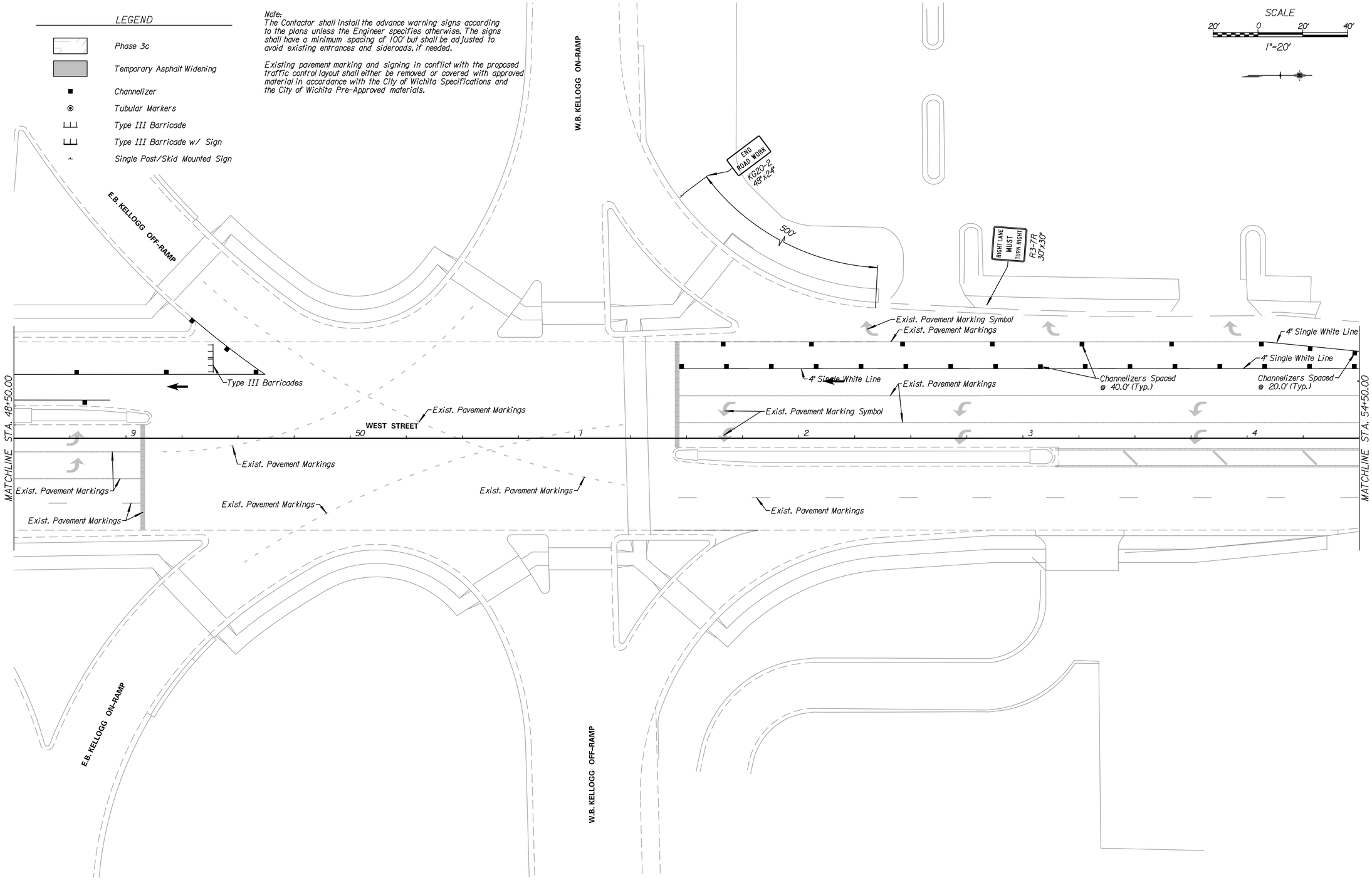
LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



TranSystems
245 NORTH WACO
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WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
133
SHEET 133 OF 262

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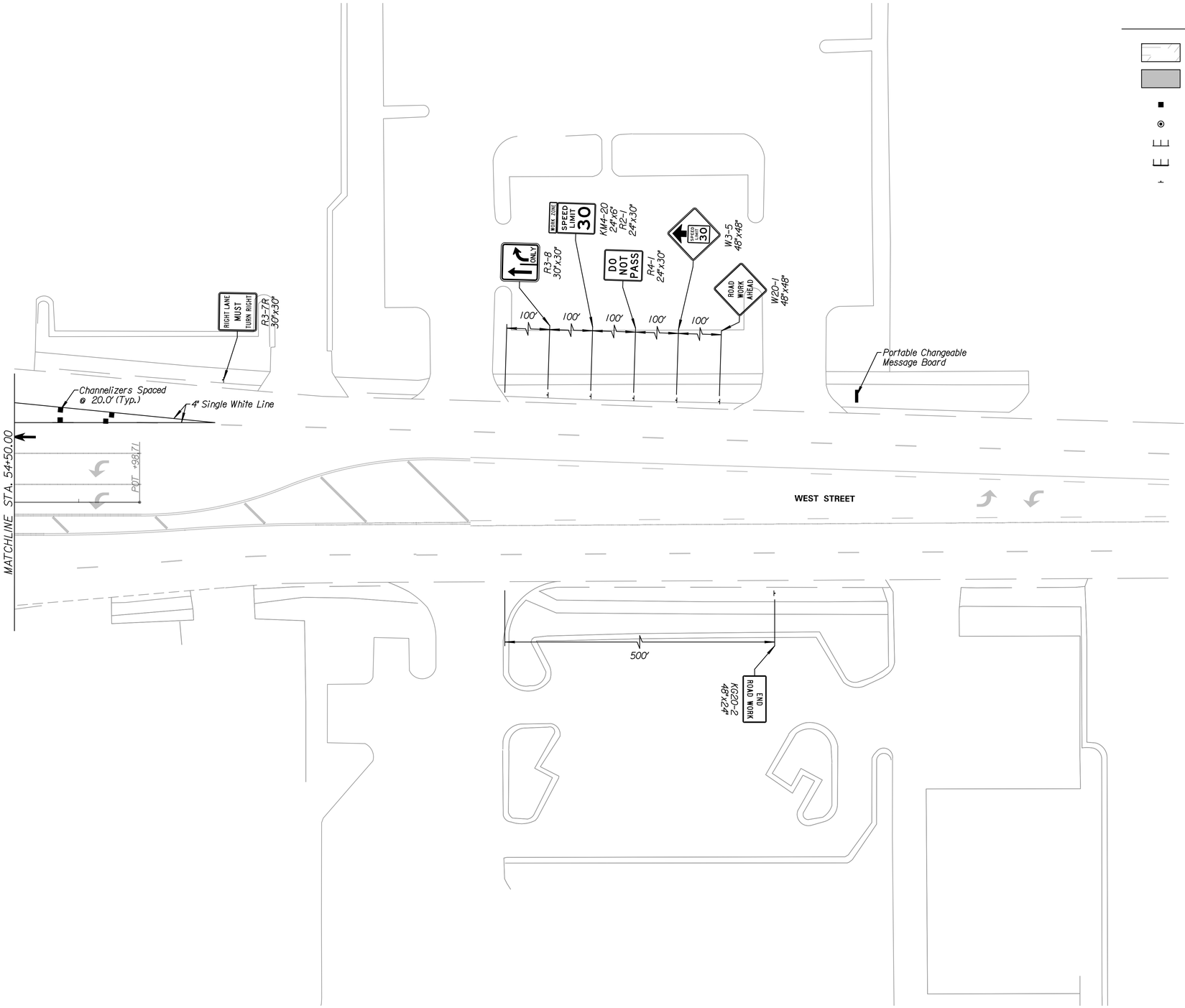
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
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DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.

134

SHEET 134 OF 262

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

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LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

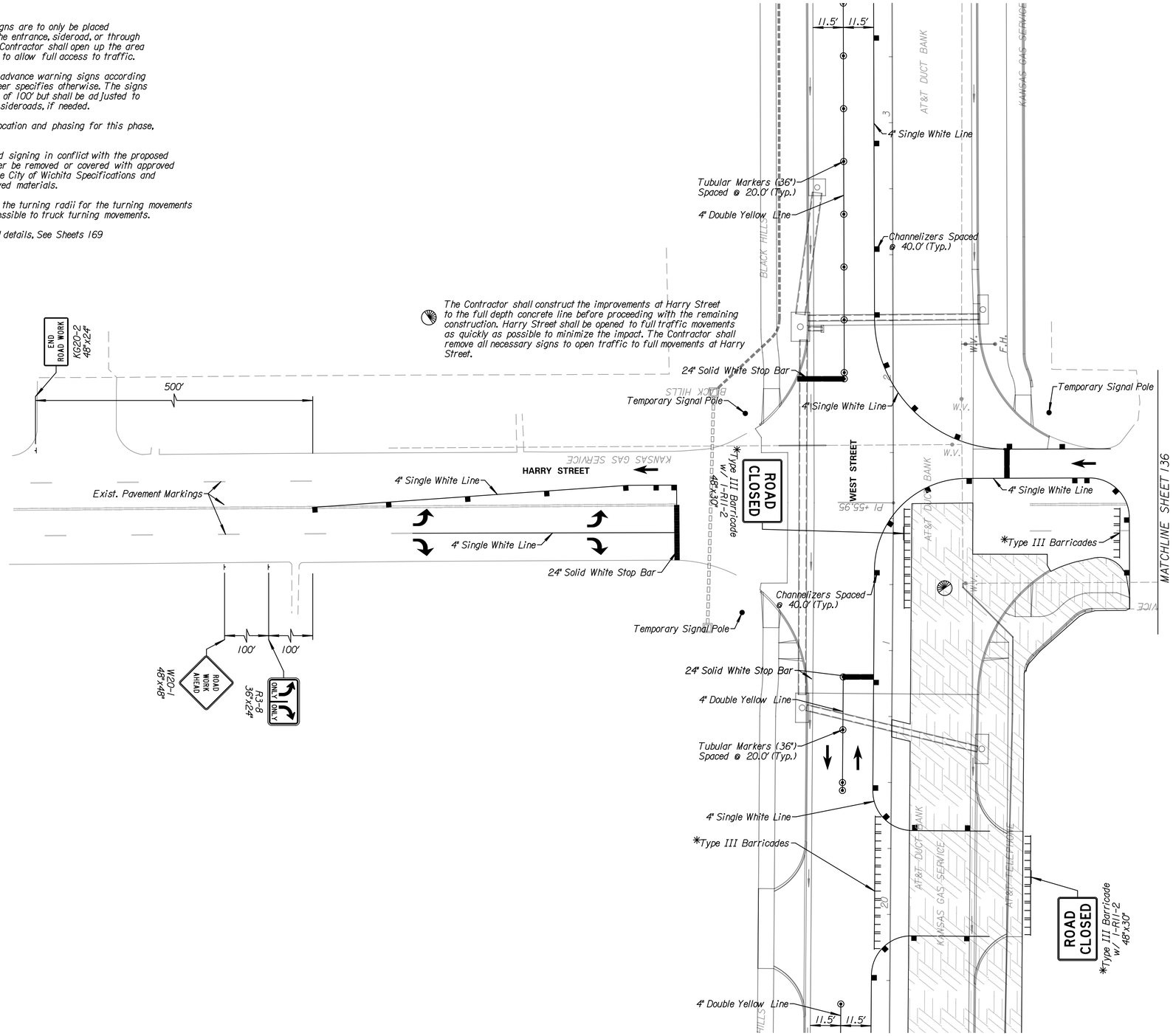
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For temporary traffic signal location and phasing for this phase, See Sheet 169

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall maximize the turning radii for the turning movements at Harry Street to make it accessible to truck turning movements.

For West Street traffic control details, See Sheets 169



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
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DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.
135
SHEET 135 OF 262

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

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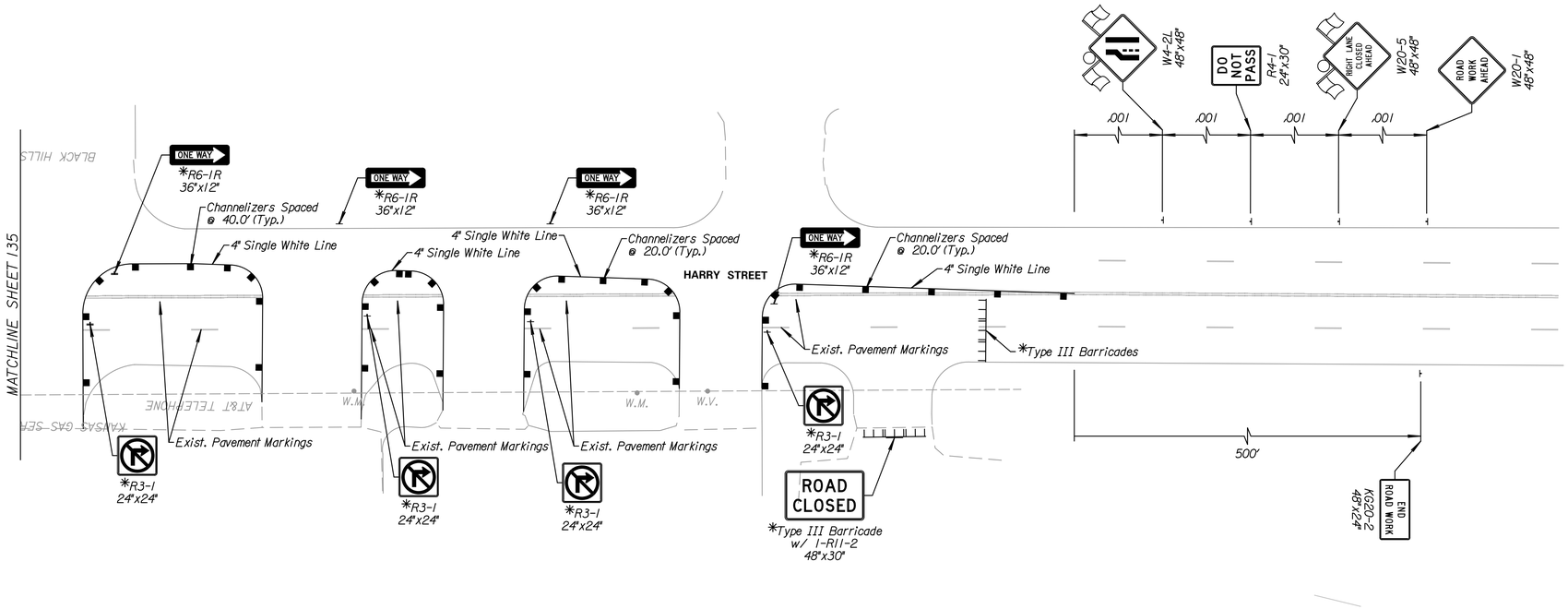
LEGEND

- Phase 3c
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during construction through the entrance, sideroad, or through construction in the area. The Contractor shall open up the area after construction is complete to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 3c

SHEET NO.

136

SHEET 136 OF 262

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

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LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

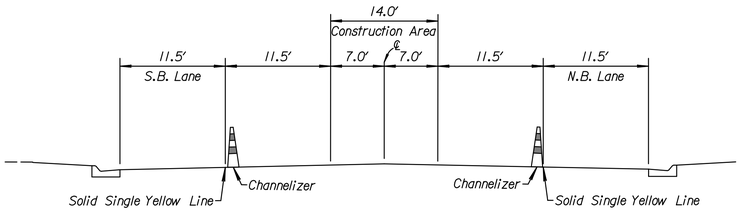
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

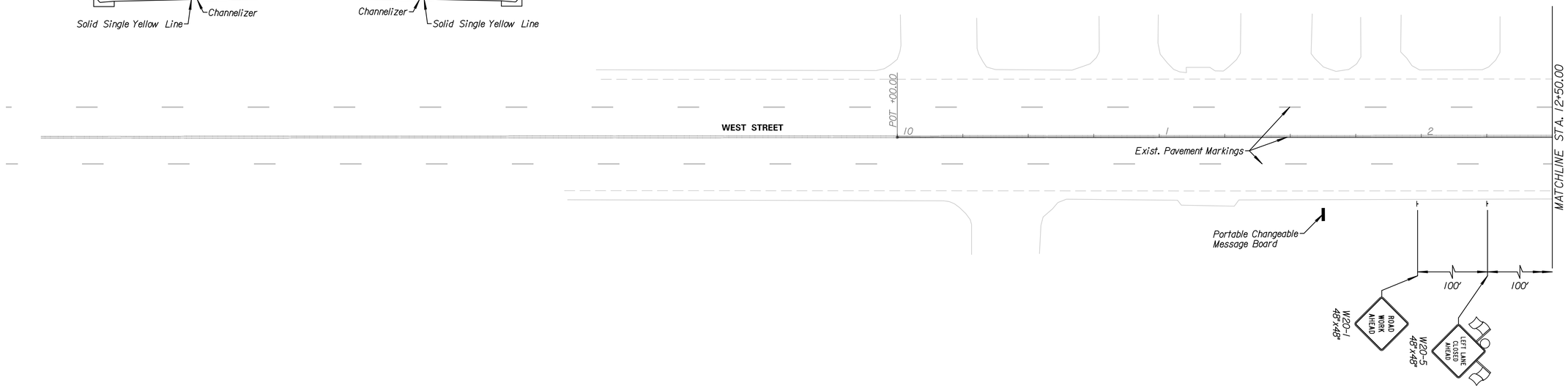
Phase 4a

Phase 4a construction shall close the south bound lanes of West Street from south of Harry Street to north of McComas Street. Two way traffic shall be maintained through construction on the outside lanes pavemd in Phase 2 and 3. Construction at the Walker Street and West Street Intersection shall be completed and opened to traffic before starting construction at the Irving Street and West Street Intersection. Major items of work include but are not limited to concrete pavement and permanent signal installation.

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

Typical Section Phase IV





TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
137
SHEET 137 OF 262

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

LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

SCALE
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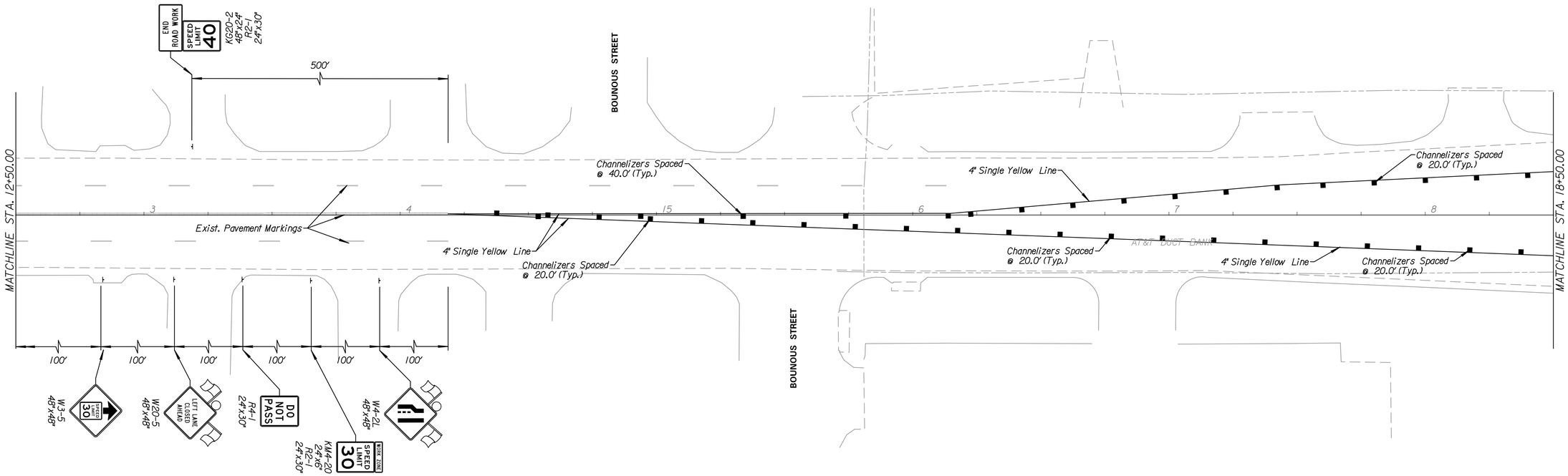
1"=20'



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4a

SHEET NO.
138
SHEET 138 OF 262

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

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LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

SCALE
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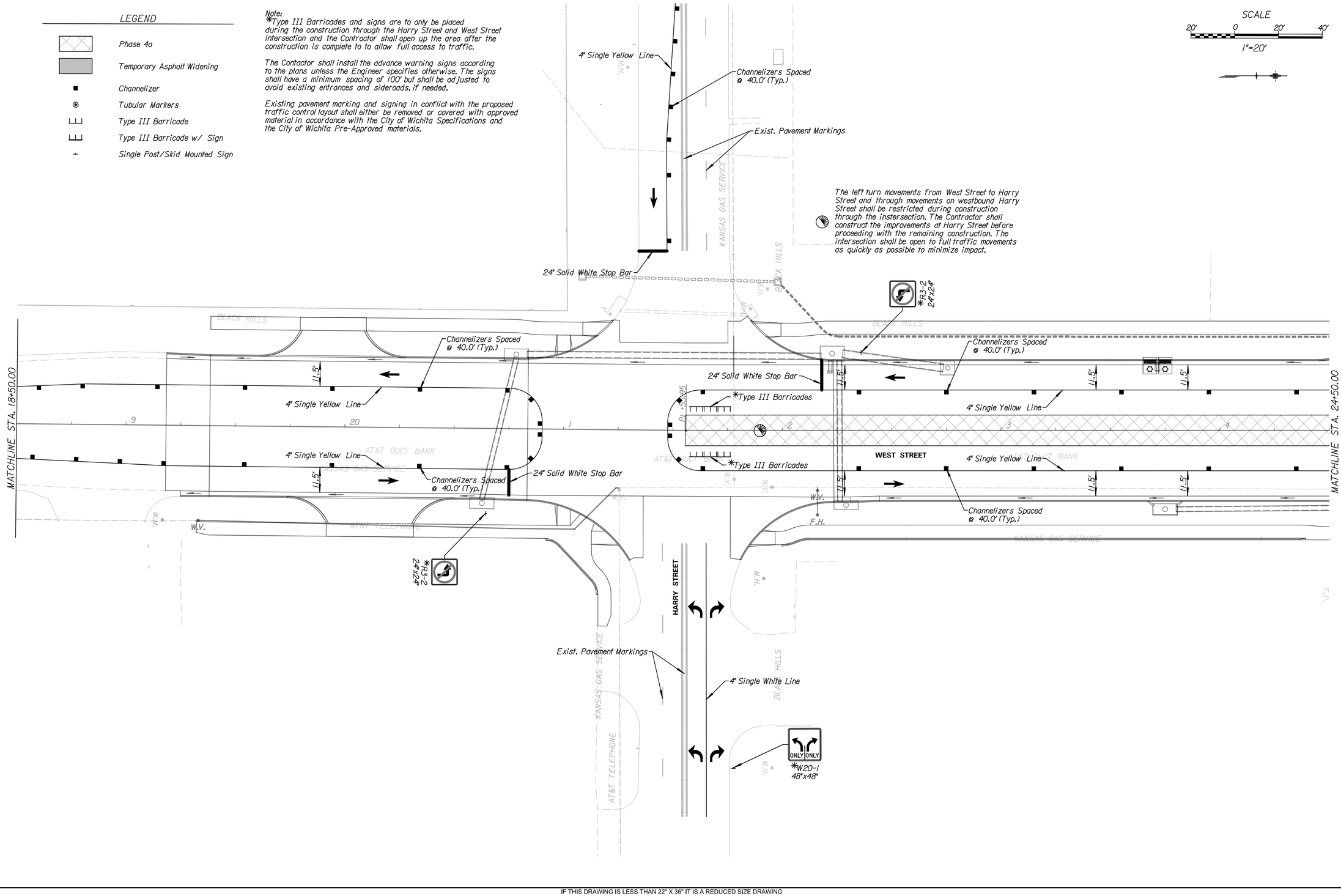
1"=20'



TranSystems
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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
139
SHEET 139 OF 262

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

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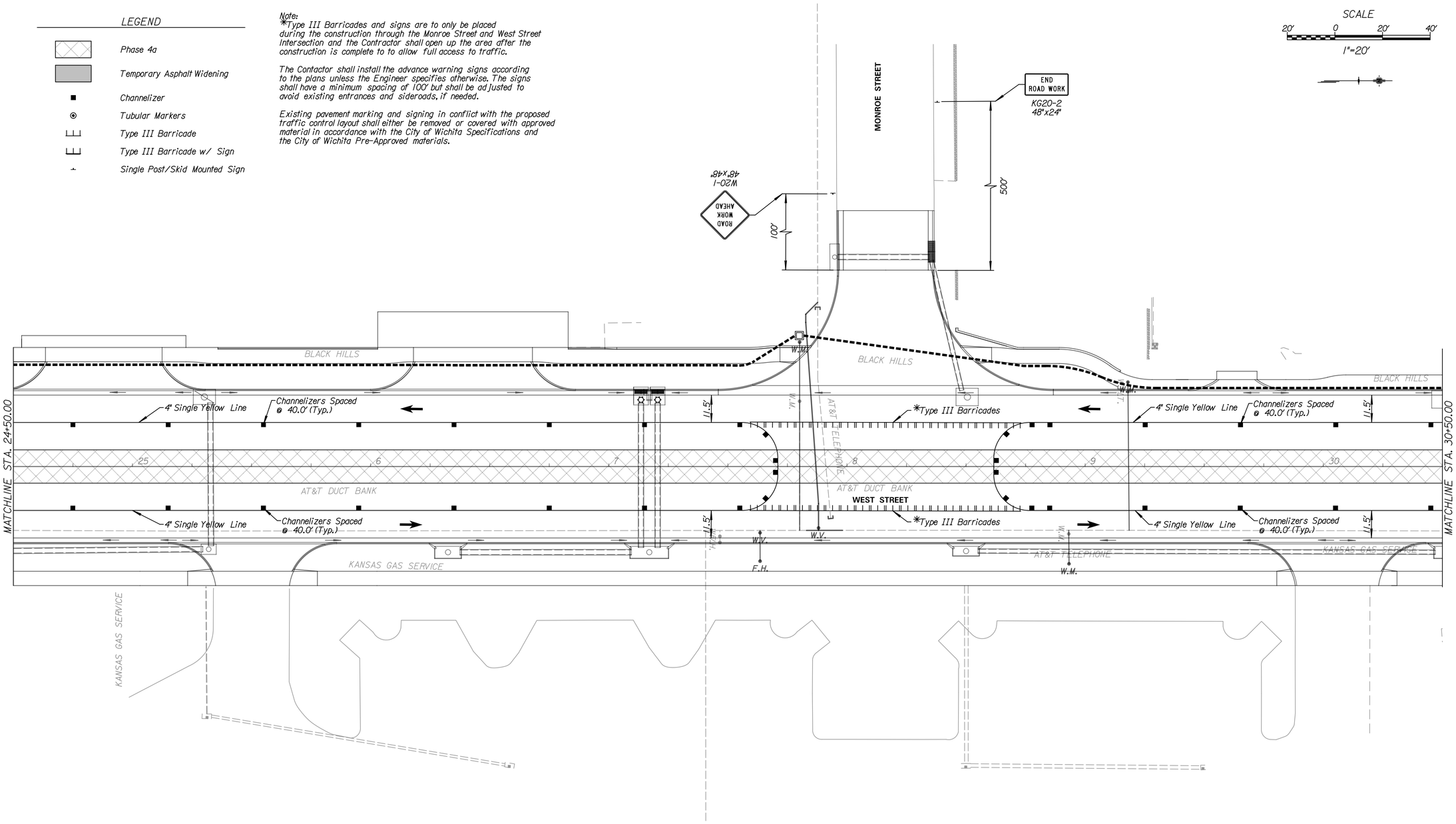
LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Monroe Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.

140

SHEET 140 OF 262

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

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LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Walker Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

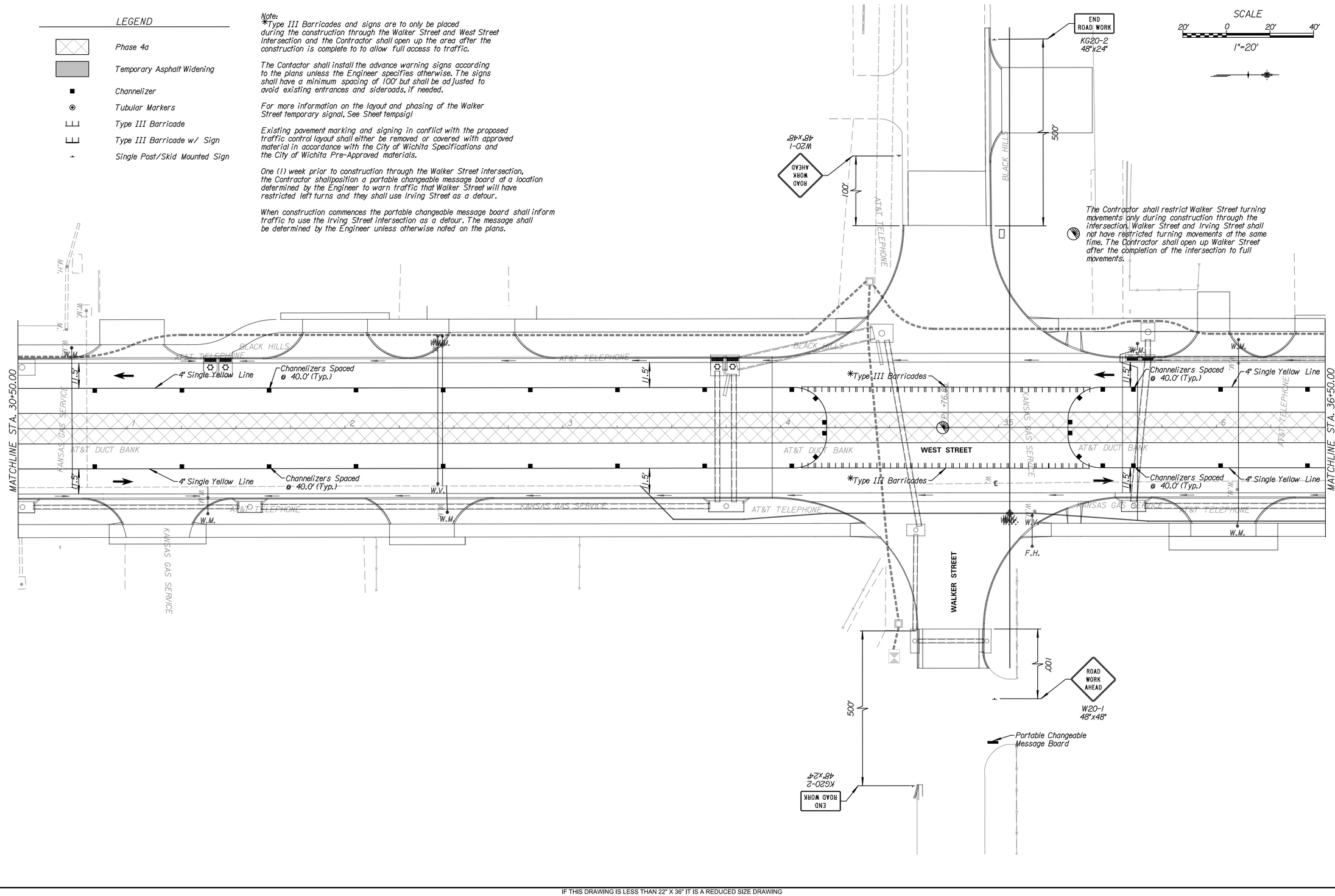
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet tempsig1

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to construction through the Walker Street intersection, the Contractor shallposition a portable changeable message board at a location determined by the Engineer to warn traffic that Walker Street will have restricted left turns and they shall use Irving Street as a detour.

When construction commences the portable changeable message board shall inform traffic to use the Irving Street intersection as a detour. The message shall be determined by the Engineer unless otherwise noted on the plans.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

City of WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.

141

SHEET 141 OF 262

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

LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Walker Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For more information on the layout and phasing of the Walker Street temporary signal, See Sheet tempsig1

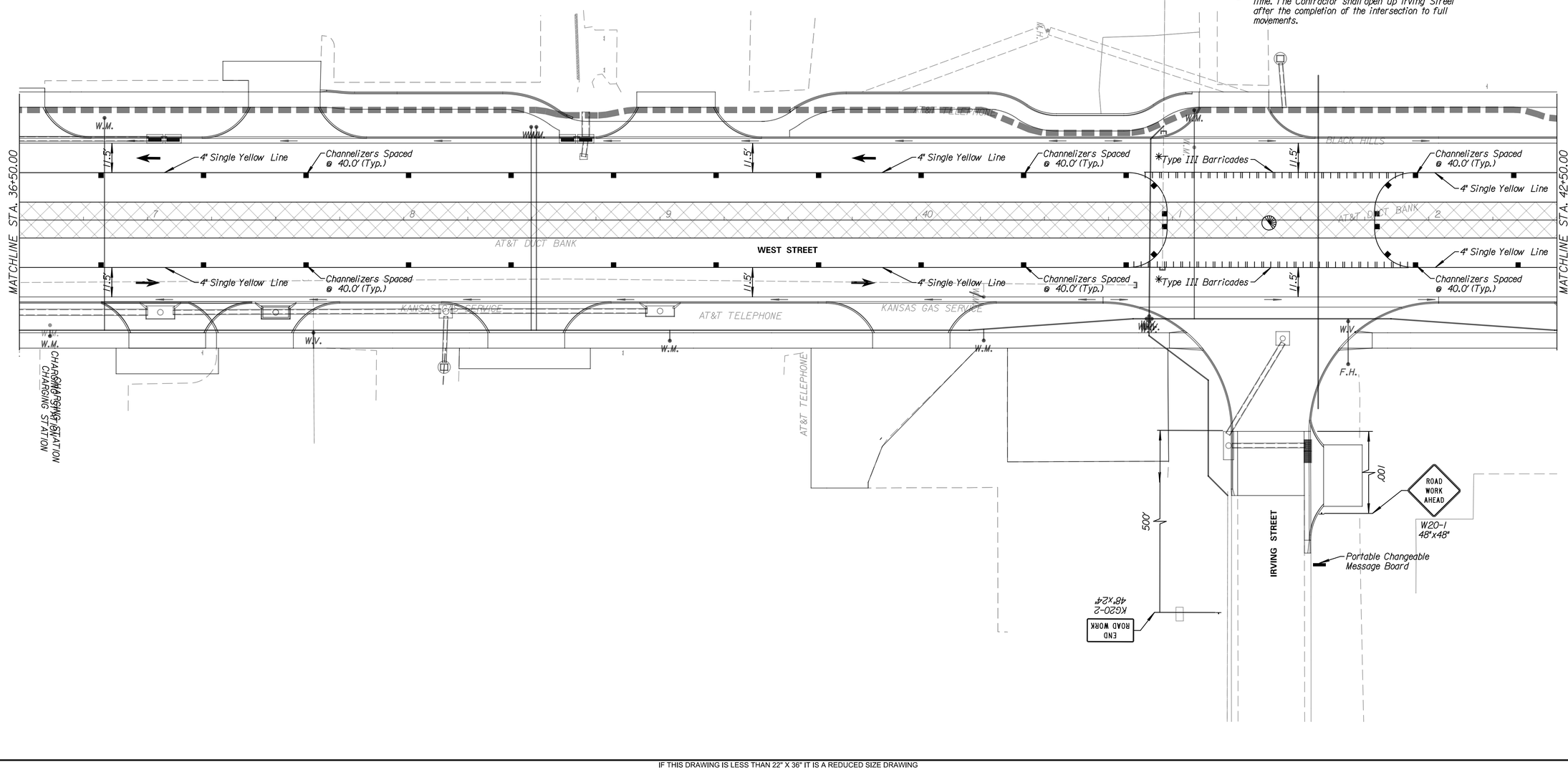
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

One (1) week prior to construction through the Irving Street intersection, the Contractor shall position a portable changeable message board at a location determined by the Engineer to warn traffic that Irving Street will have restricted left turns and they shall use Walker Street as a detour.

When construction commences the portable changeable message board shall inform traffic to use the Walker Street intersection as a detour. The message shall be determined by the Engineer unless otherwise noted on the plans.

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

The Contractor shall restrict Irving Street turning movements only during construction through the intersection. Irving Street and Walker Street shall not have restricted turning movements at the same time. The Contractor shall open up Irving Street after the completion of the intersection to full movements.



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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

City of WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

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SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
142
SHEET 142 OF 262

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

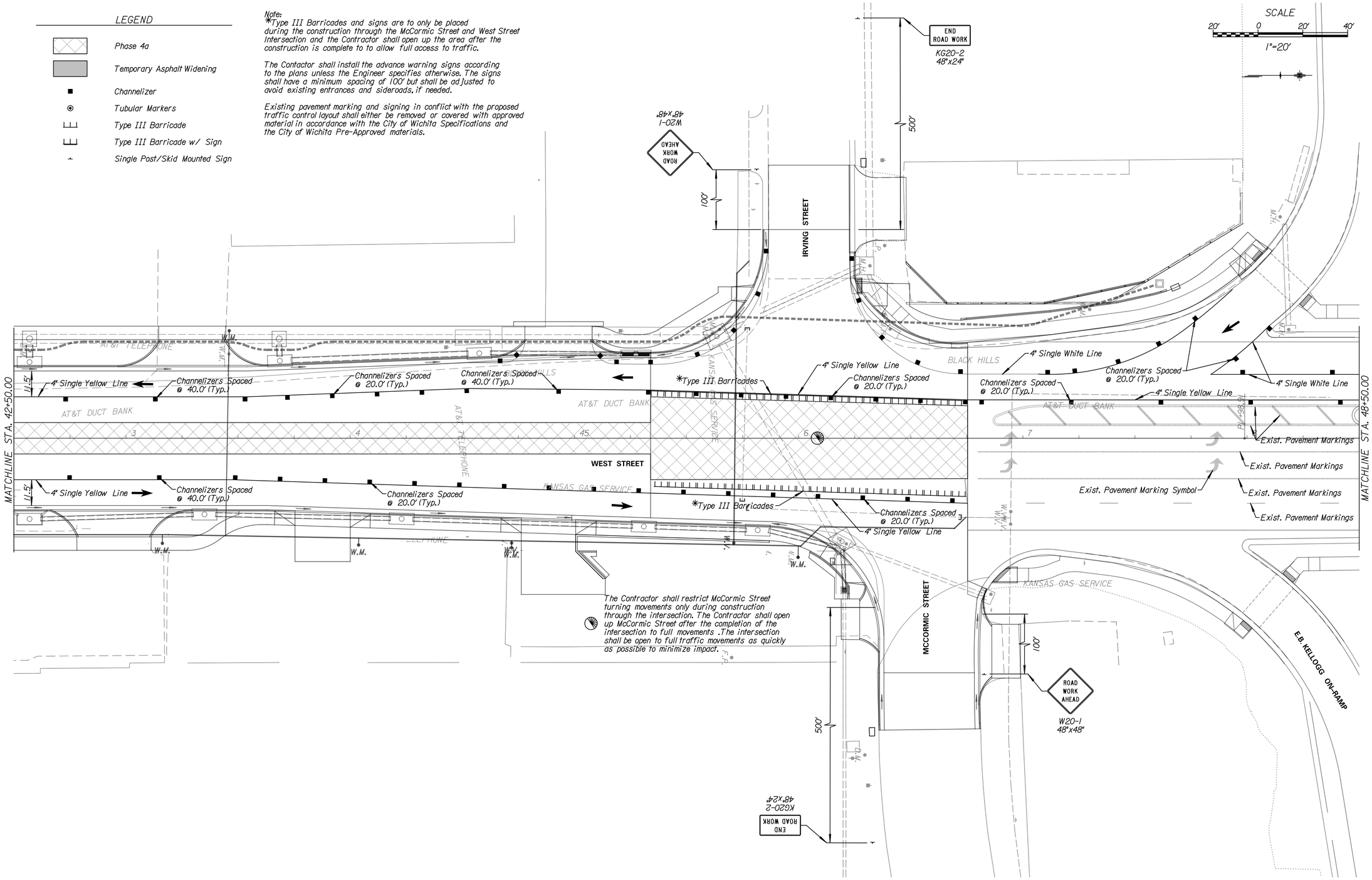
LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the McCormic Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4a

SHEET NO.

143

SHEET 143 OF 262

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

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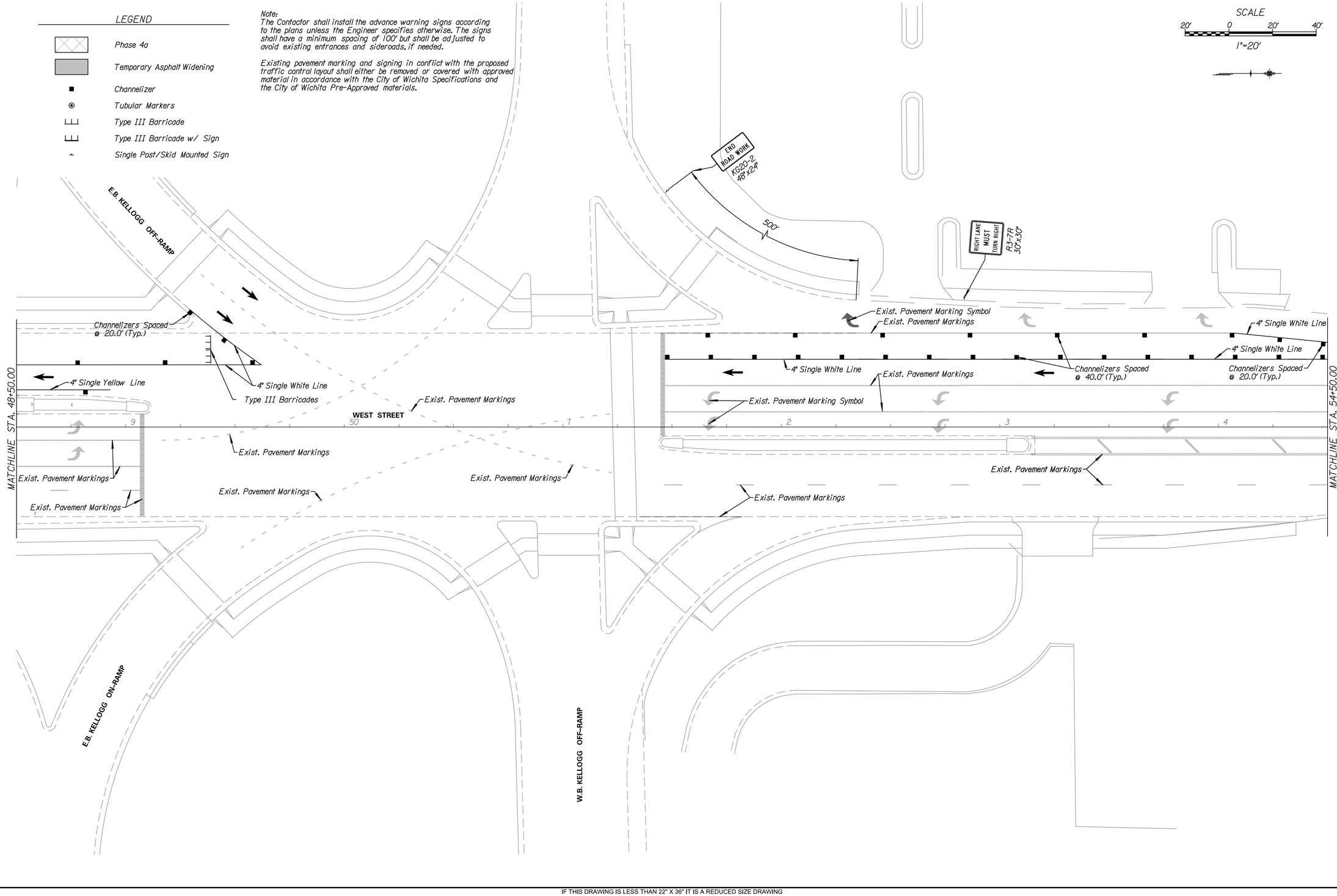
LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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

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FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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SCALE:	1"=20'
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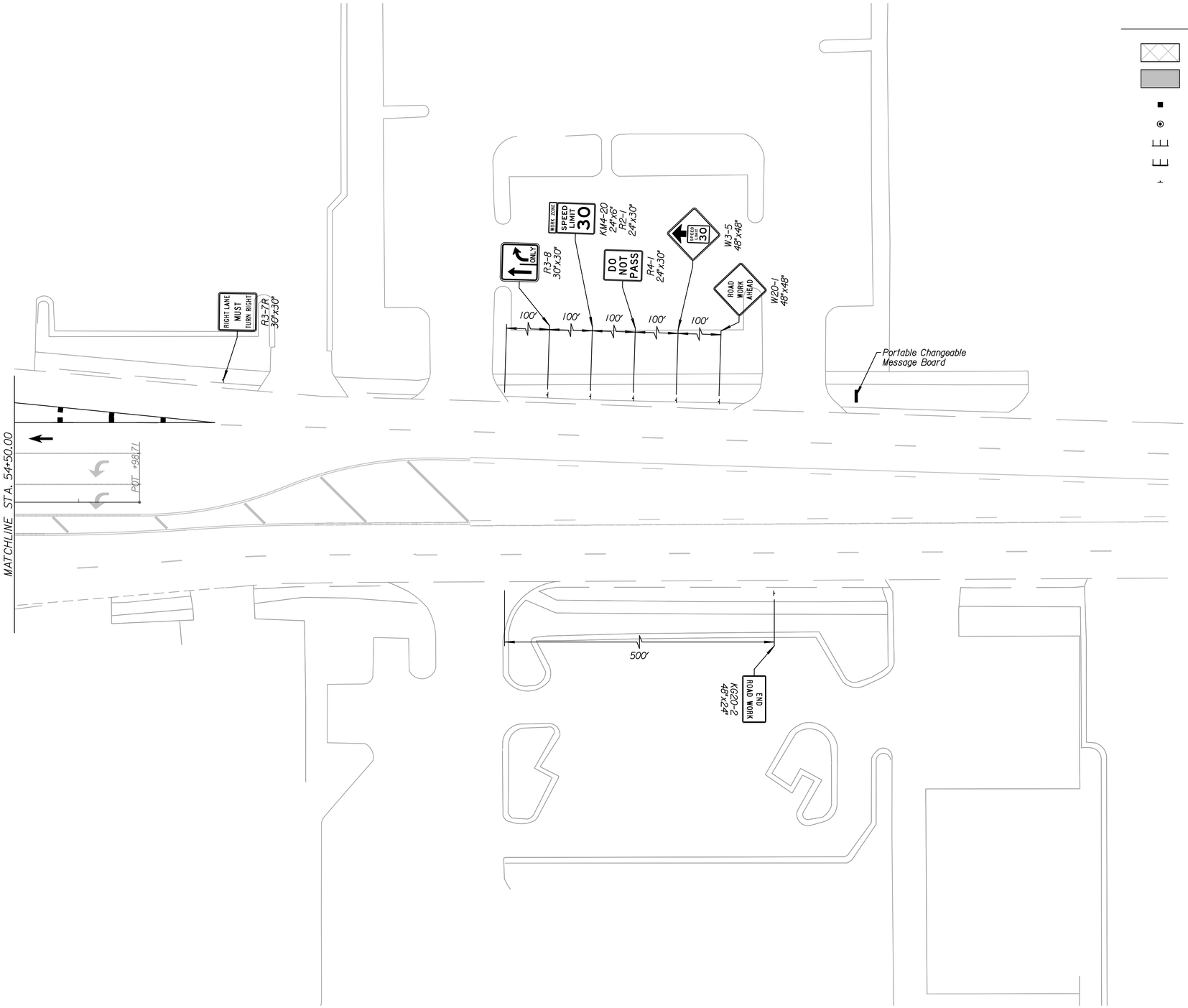
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
144
SHEET 144 OF 262



LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4a

SHEET NO.

145

SHEET 145 OF 262

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

LEGEND

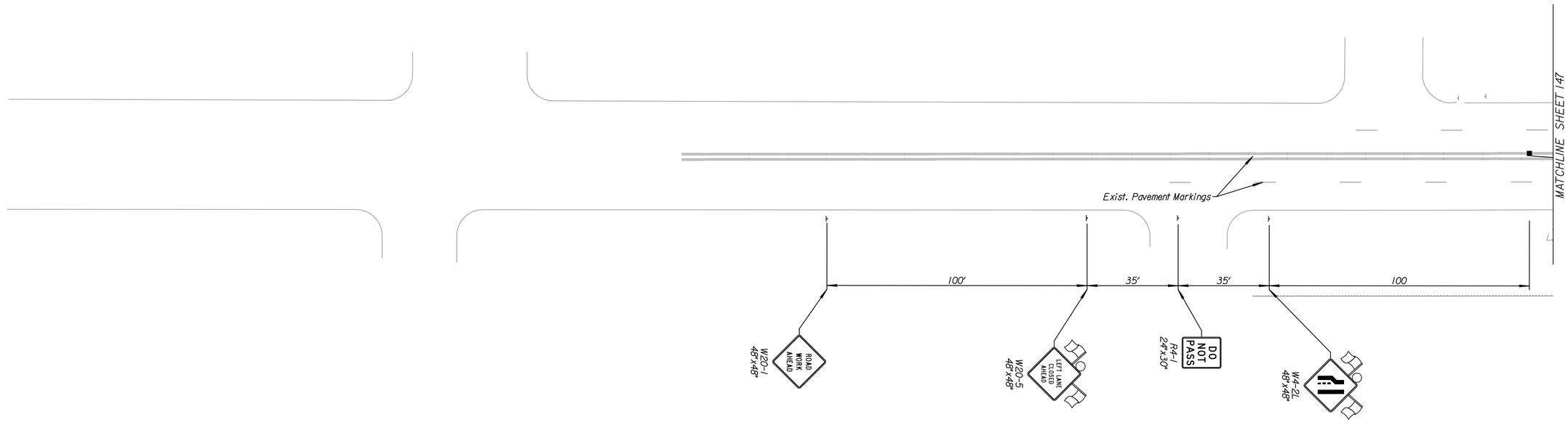
- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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FAX: 316-462-5629

CONSULTANTS:

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FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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SCALE:	1"=20'
DATE:	2/25/2020
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DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
146
SHEET 146 OF 262

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

LEGEND

- Phase 4a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

The left turn movements from West Street to Harry Street and through movements on westbound Harry Street shall be restricted during construction through the intersection. The Contractor shall construct the improvements at Harry Street before proceeding with the remaining construction. The intersection shall be open to full traffic movements as quickly as possible to minimize impact.

MATCHLINE SHEET 146

Exist. Pavement Markings
4" Single Yellow Line
Channelizers Spaced @ 30.0' (Typ.)
Channelizers Spaced @ 15.0' (Typ.)
24" Solid White Stop Bar
*Type III Barricades
4" Single White Line
HARRY STREET
WEST STREET
4" Single Yellow Line
Channelizers Spaced @ 40.0' (Typ.)
*R3-2 24"x24"
AT&T DUCT BANK
KANSAS GAS SERVICE
AT&T TELEPHONE
BLACK HILLS
W.V.
F.H.
M.H.
W.M.
20
100'
500'
*W20-1 48"x48"
ONLY ONLY
ROAD WORK AHEAD
END ROAD WORK
KG20-2 48"x24"

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
147
SHEET 147 OF 262

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

LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the installation of the water line through the area and the Contractor shall open up the area after the installation of the water line to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
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CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4a

SHEET NO.
148
SHEET 148 OF 262

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

LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

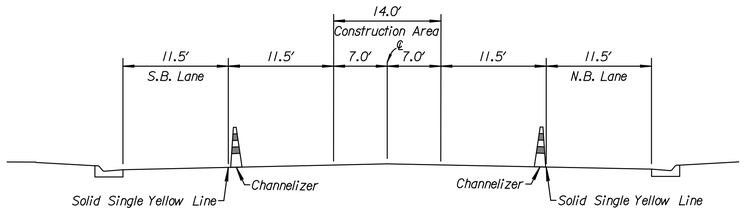
Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

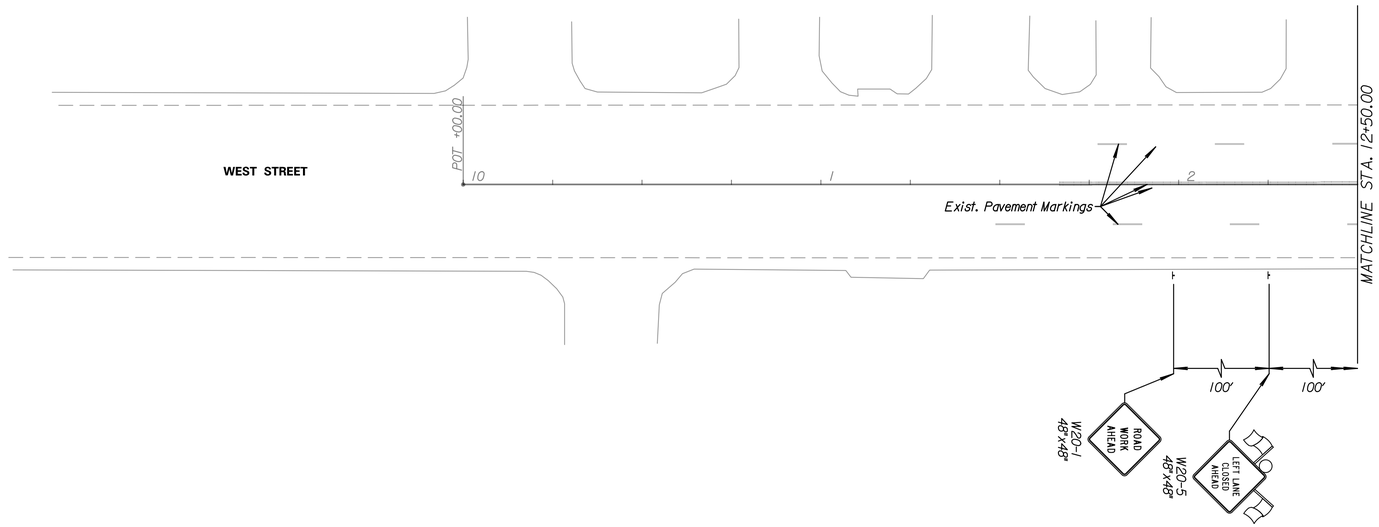
Phase 4b

Phase 4b construction shall close the south bound lanes of West Street from south of Harry Street to north of McComas Street. Two way traffic shall be maintained through construction on the outside lanes pavemd in Phase 2 and 3. Construction at the Walker Street and West Street Intersection shall be completed and opened to traffic before starting construction at the Irving Street and West Street Intersection. Major items of work include but are not limited to concrete pavement and permanent signal installation.

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

Typical Section Phase 4b





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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
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PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
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CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
149
SHEET 149 OF 262

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

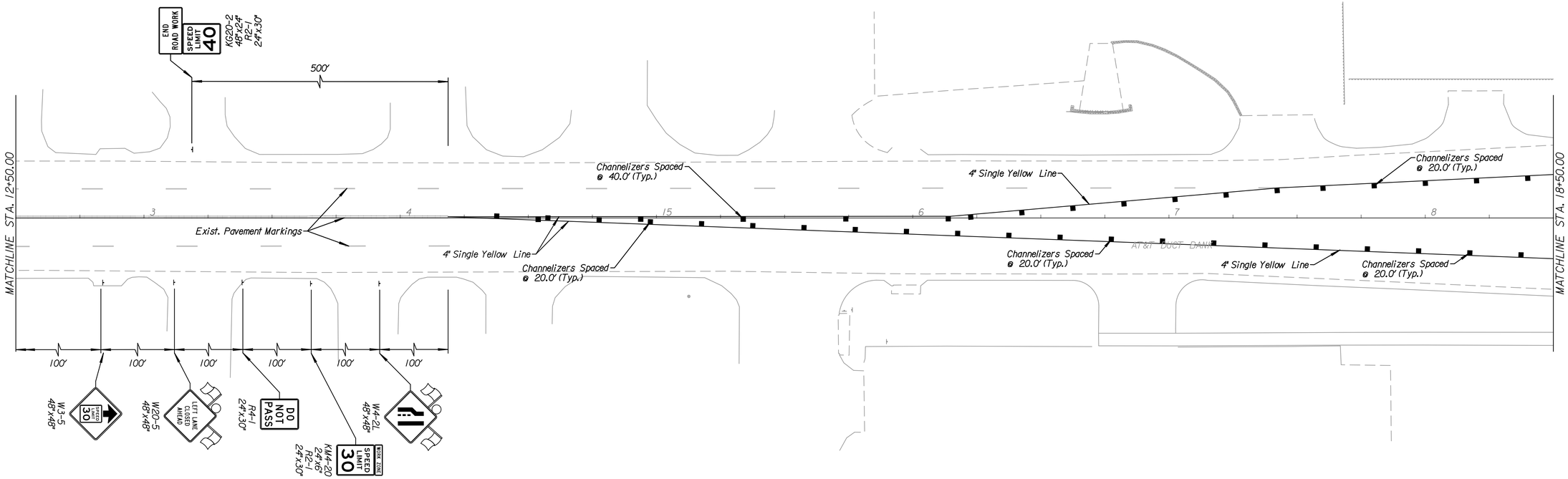
LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

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SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4b

SHEET NO.
150
SHEET 150 OF 262

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

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LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

For the temporary traffic signal layout and details, See Sheet 170

SCALE
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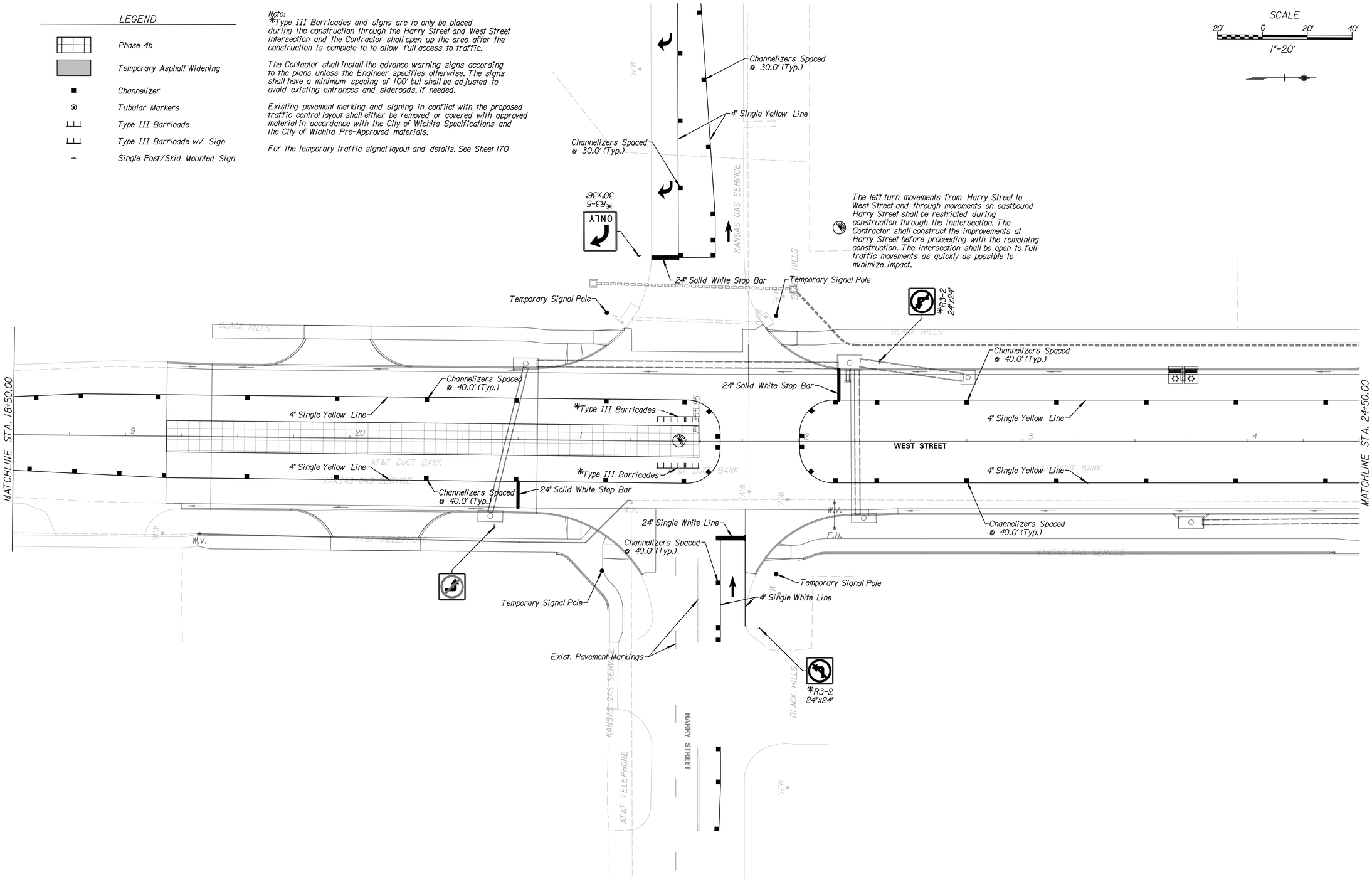
1"=20'



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FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

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CITY OF WICHITA

PROJ NO:	472-85296
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SHEET TITLE:
WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4b

SHEET NO.
151
SHEET 151 OF 262

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LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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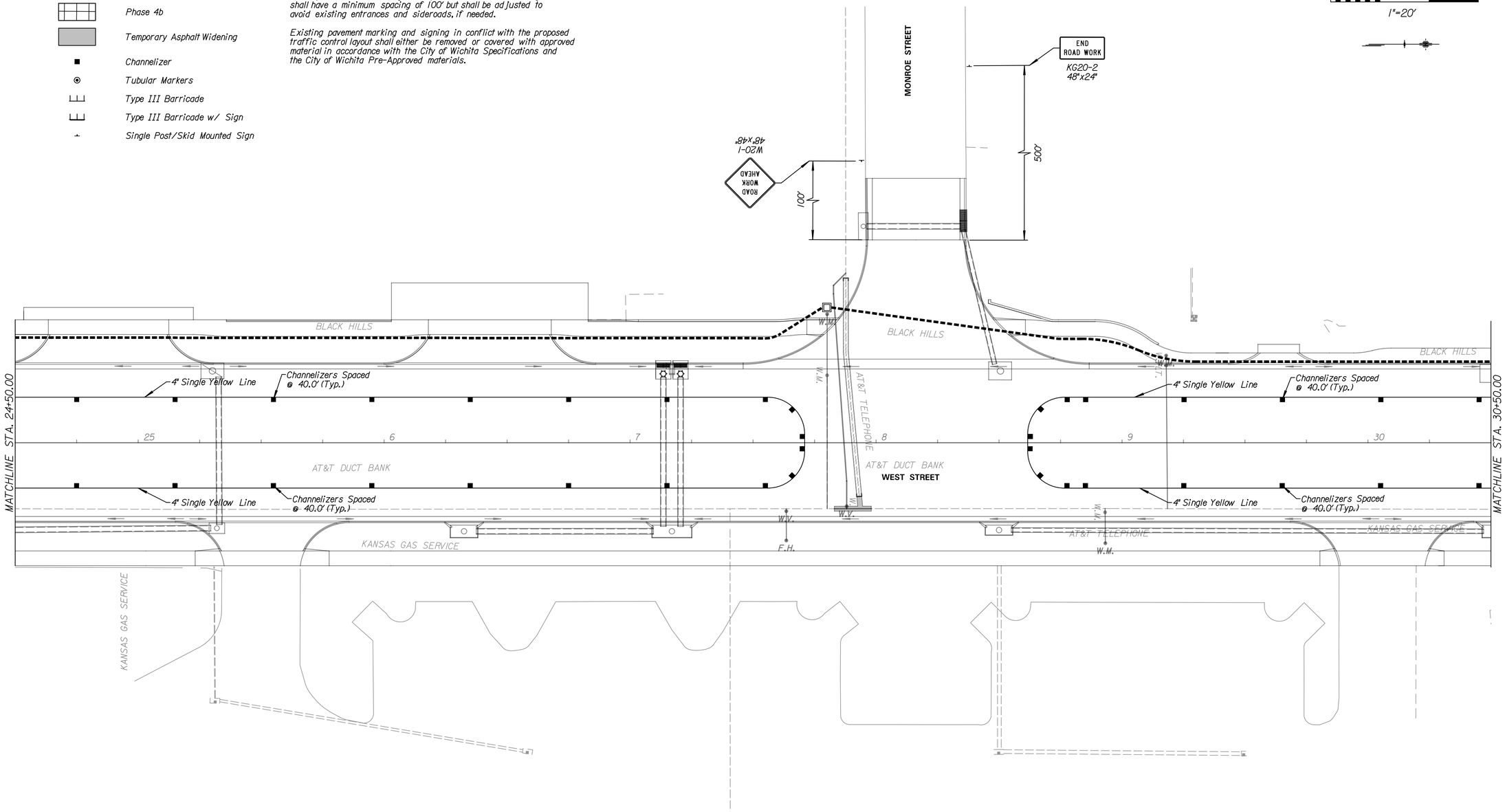
20' 0 20' 40'
1"=20'



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FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
152
SHEET 152 OF 262

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

mhoerner
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LEGEND

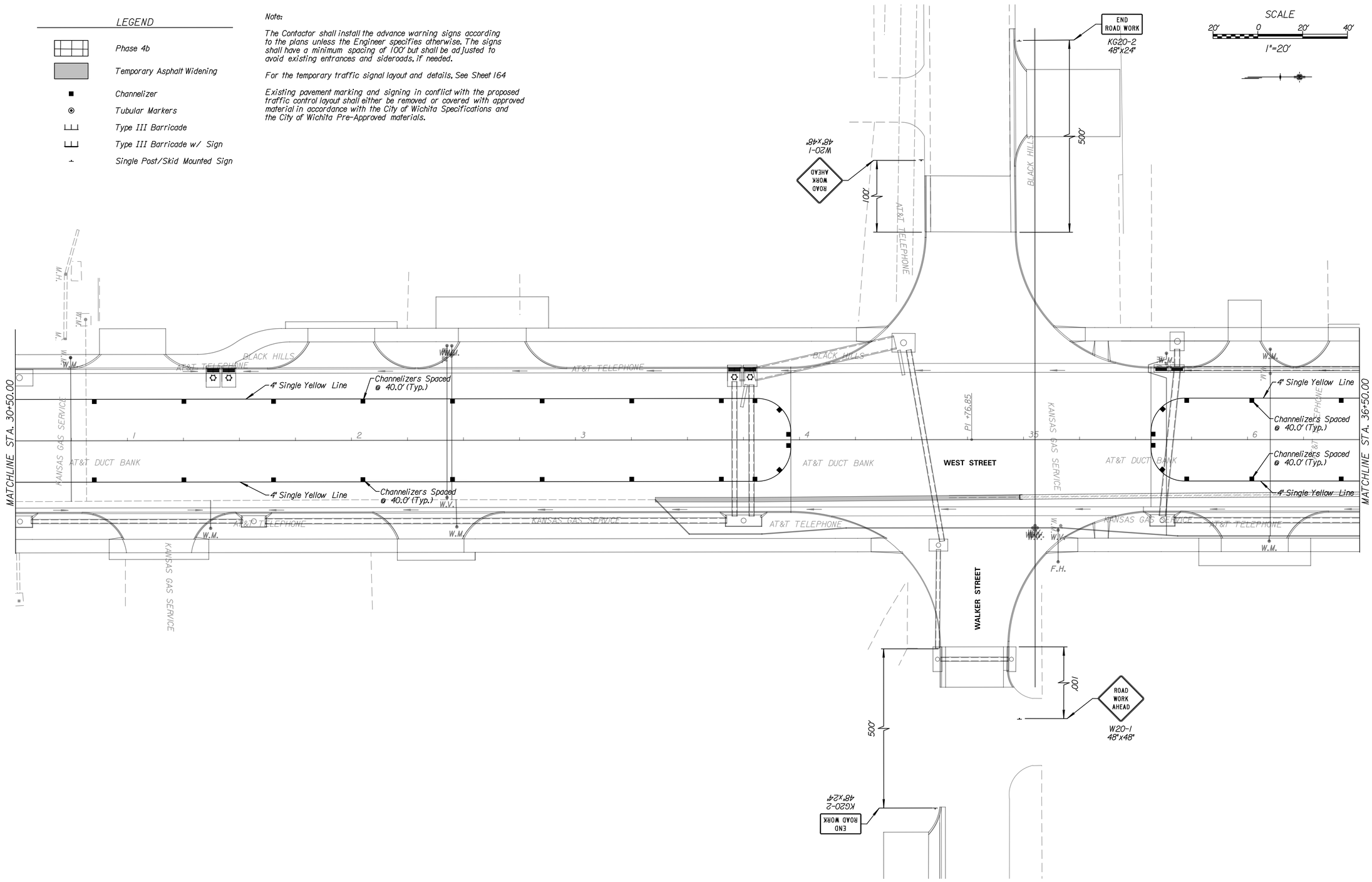
- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

For the temporary traffic signal layout and details, See Sheet 164

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.



Tran Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.

153

SHEET 153 OF 262

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

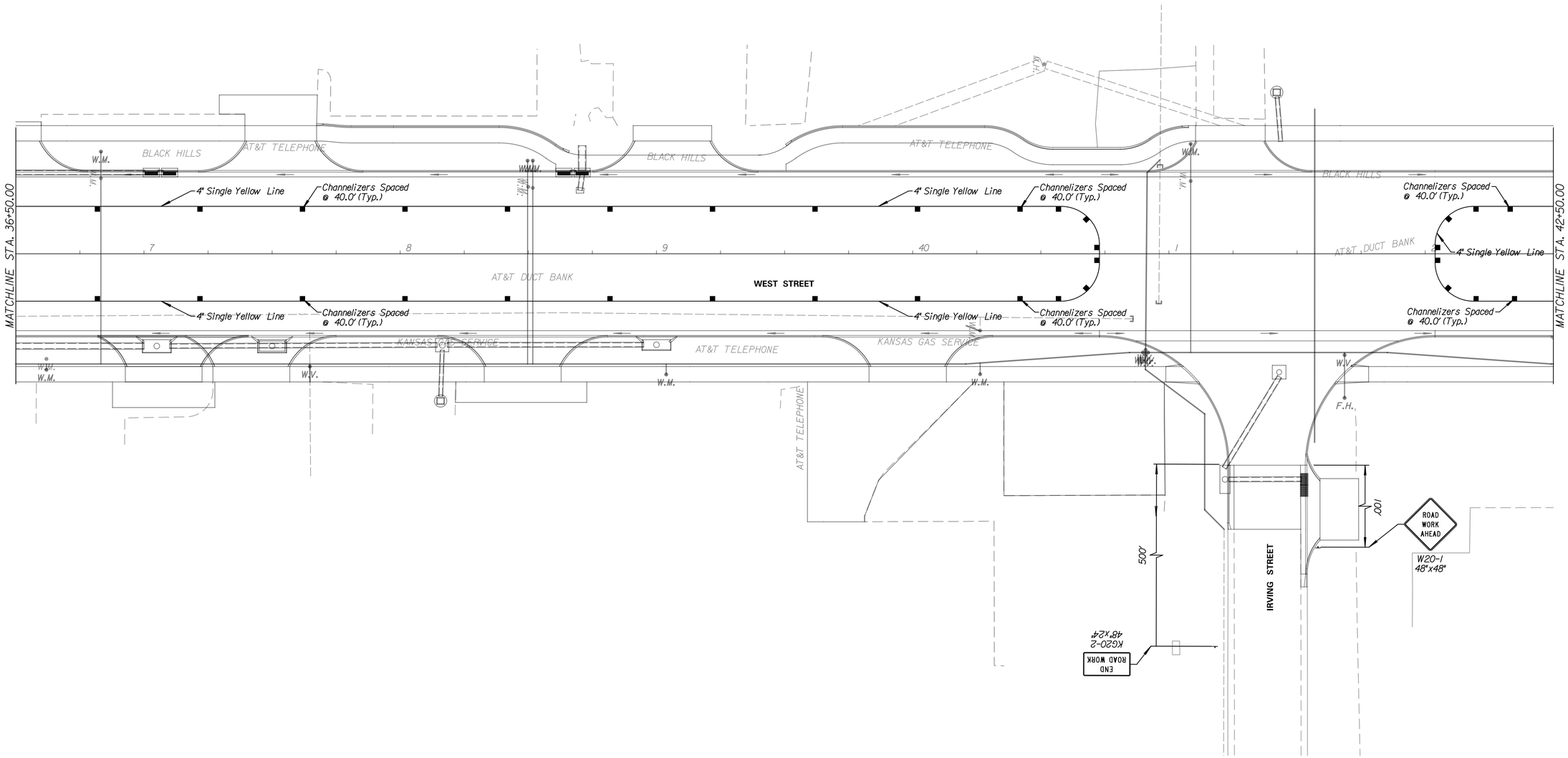
LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 2b

SHEET NO.
154

SHEET 154 OF 262

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

mhiesner
2/25/2020 - 1:45:56 PM - c:\transystems\pw_local\transystemscorp.pw1\mhiesner\d0519510\C-CPP-M01-198.DGN

LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

END ROAD WORK
KG20-2
48"x24"

500'

W20-1
ROAD WORK AHEAD
48"x48"

100'

IRVING STREET

WEST STREET

MCCORMIC STREET

E.B. KELLOGG ON-RAMP

BLACK HILLS

KANSAS GAS SERVICE

AT&T TELEPHONE

AT&T DUCT BANK

W.M.

MATCHLINE STA. 42+50.00

MATCHLINE STA. 48+50.00

4" Single Yellow Line

4" Single White Line

Channelizers Spaced @ 40.0' (Typ.)

Channelizers Spaced @ 20.0' (Typ.)

Exist. Pavement Markings

Exist. Pavement Marking Symbol

PL=38.91'

3 4 45 6 7

ROAD WORK AHEAD
W20-1
48"x48"

END ROAD WORK
KG20-2
48"x24"

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4b

SHEET NO.
155
SHEET 155 OF 262

mthomer
2/25/2020 - 1:46:09 PM - c:\transystems\ow_local\transystemscorp-pw1\mlnomer\d0519510\C-CPP-M01-199.DGN

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

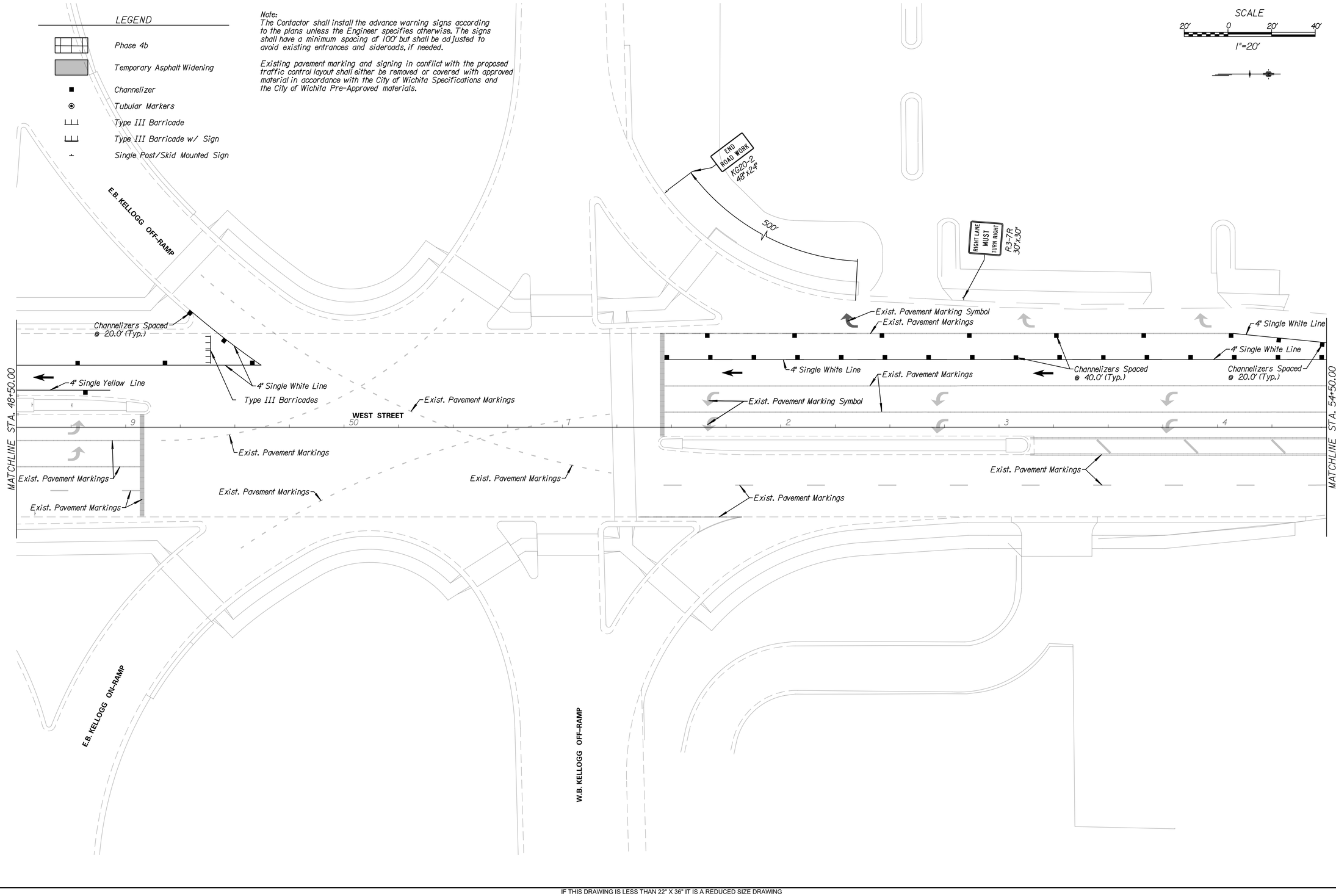
LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
156
SHEET 156 OF 262

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

mhoerner
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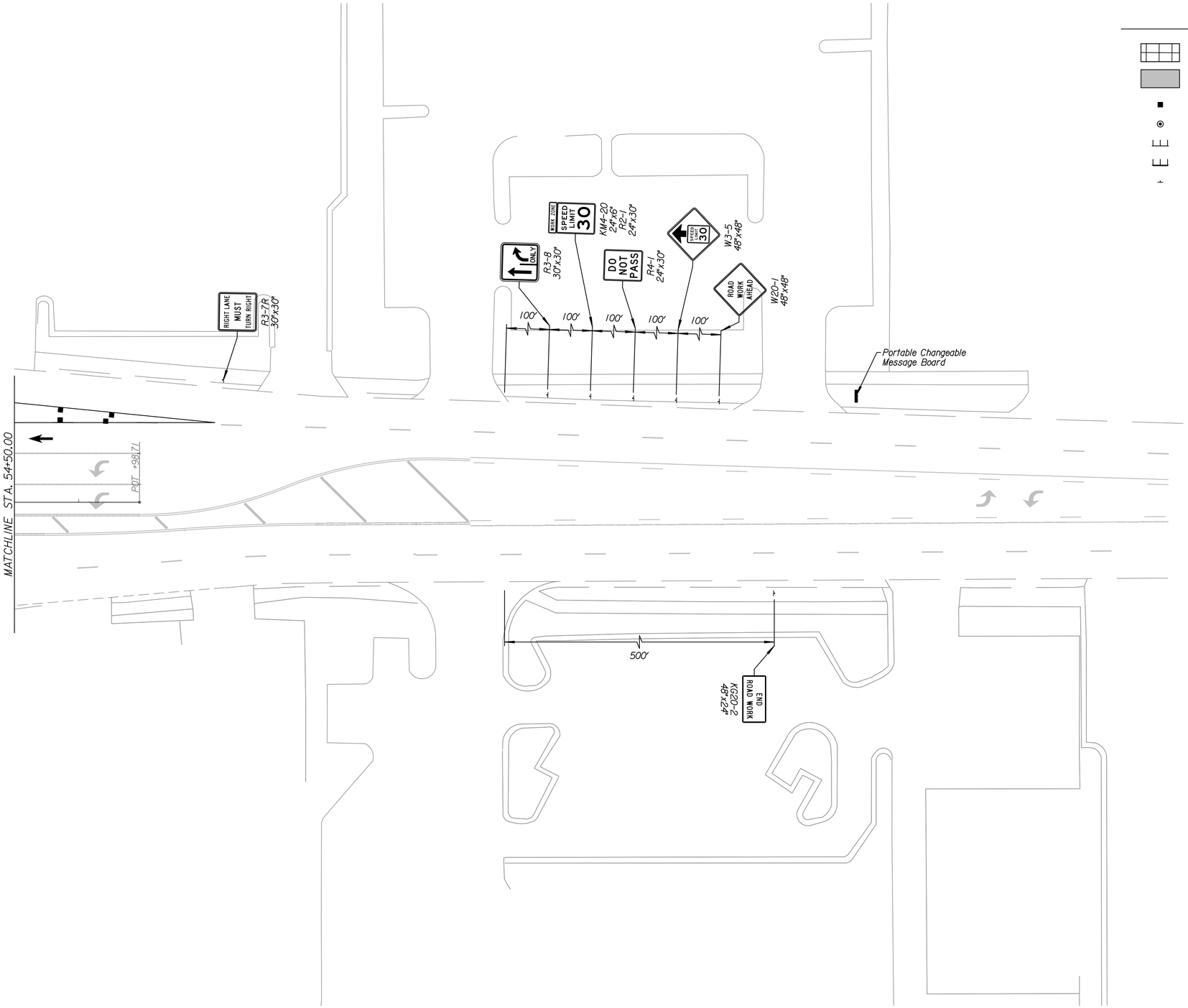

LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

SCALE

20' 0 20' 40'

1"=20'

Note:
The Contractor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

The Contractor shall continue to warn traffic that the right lane will be forced to go right and the left lane will be the thru movement. The message shall be determined by the Engineer unless otherwise noted on the plans.

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
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DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS
TRAFFIC CONTROL
PHASE 4b

SHEET NO.

157

SHEET 157 OF 262

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

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LEGEND

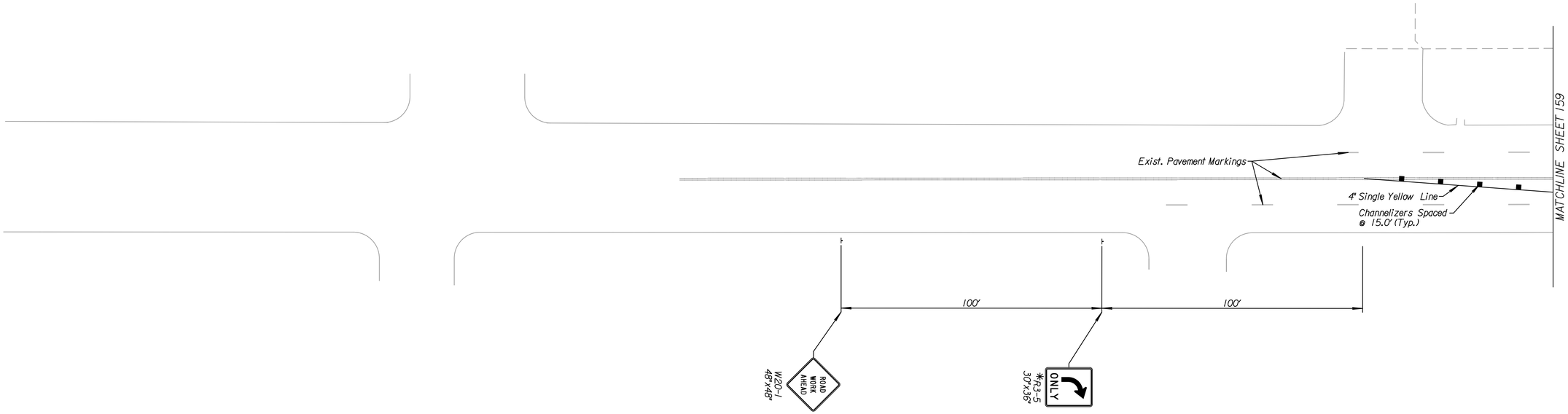
- Phase 2a
- Temporary Asphalt Widening
- ■ Channelizer
- ◉ Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street Intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5829

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
158

SHEET 158 OF 262

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2/25/2020 - 1:46:14 PM - c:\transystems\pw_local\transyscorp.pw1\mlivernet\d0519510\C-CPP-M01-202.DGN

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

LEGEND

- Phase 4b
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
*Type III Barricades and signs are to only be placed during the construction through the Harry Street and West Street intersection and the Contractor shall open up the area after the construction is complete to to allow full access to traffic.

The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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

The left turn movements from West Street to Harry Street and through movements on westbound Harry Street shall be restricted during construction through the instersection. The Contractor shall construct the improvements at Harry Street before proceeding with the remaining construction. The intersection shall be open to full traffic movements as quickly as possible to minimize impact.

MATCHLINE SHEET 158

MATCHLINE SHEET 160

HARRY STREET

WEST STREET

BLACK HILLS

AT&T DUCT BANK

KANSAS GAS SERVICE

AT&T TELEPHONE

4" Single Yellow Line

Channelizers Spaced @ 40.0' (Typ.)

*R3-2 24"x24"

24" Single White Line

Temporary Signal Pole

24" Solid White Stop Bar

Exist. Pavement Markings

Channelizers Spaced @ 30.0' (Typ.)

Channelizers Spaced @ 20.0' (Typ.)

*R3-5 30"x36" ONLY

4" Single White Line

M.H.

W.V.

W.M.

F.H.

P.

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PHONE: 316-303-3000
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

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SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
159
SHEET 159 OF 262

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

mhoerner
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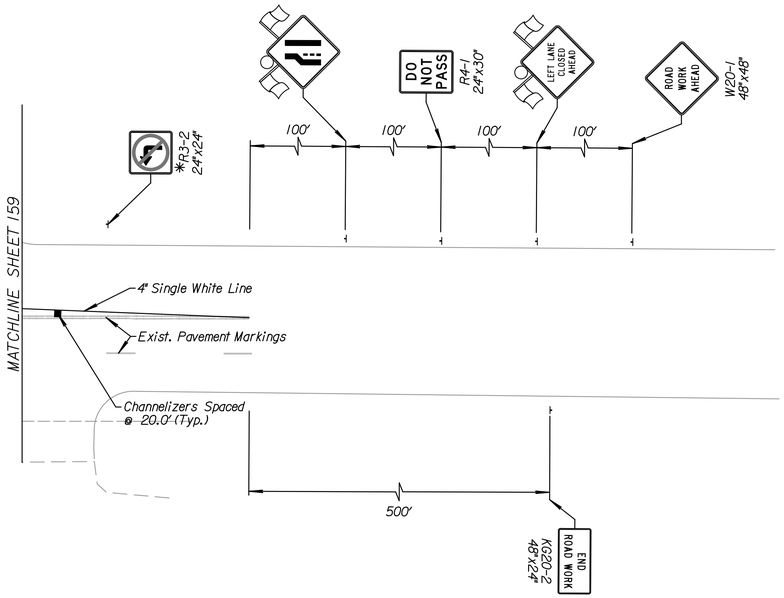
LEGEND

- Phase 2a
- Temporary Asphalt Widening
- Channelizer
- Tubular Markers
- Type III Barricade
- Type III Barricade w/ Sign
- Single Post/Skid Mounted Sign

Note:
The Contactor shall install the advance warning signs according to the plans unless the Engineer specifies otherwise. The signs shall have a minimum spacing of 100' but shall be adjusted to avoid existing entrances and sideroads, if needed.

Existing pavement marking and signing in conflict with the proposed traffic control layout shall either be removed or covered with approved material in accordance with the City of Wichita Specifications and the City of Wichita Pre-Approved materials.

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



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SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:		
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DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET IMPROVEMENTS TRAFFIC CONTROL PHASE 4b

SHEET NO.
160
SHEET 160 OF 262

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

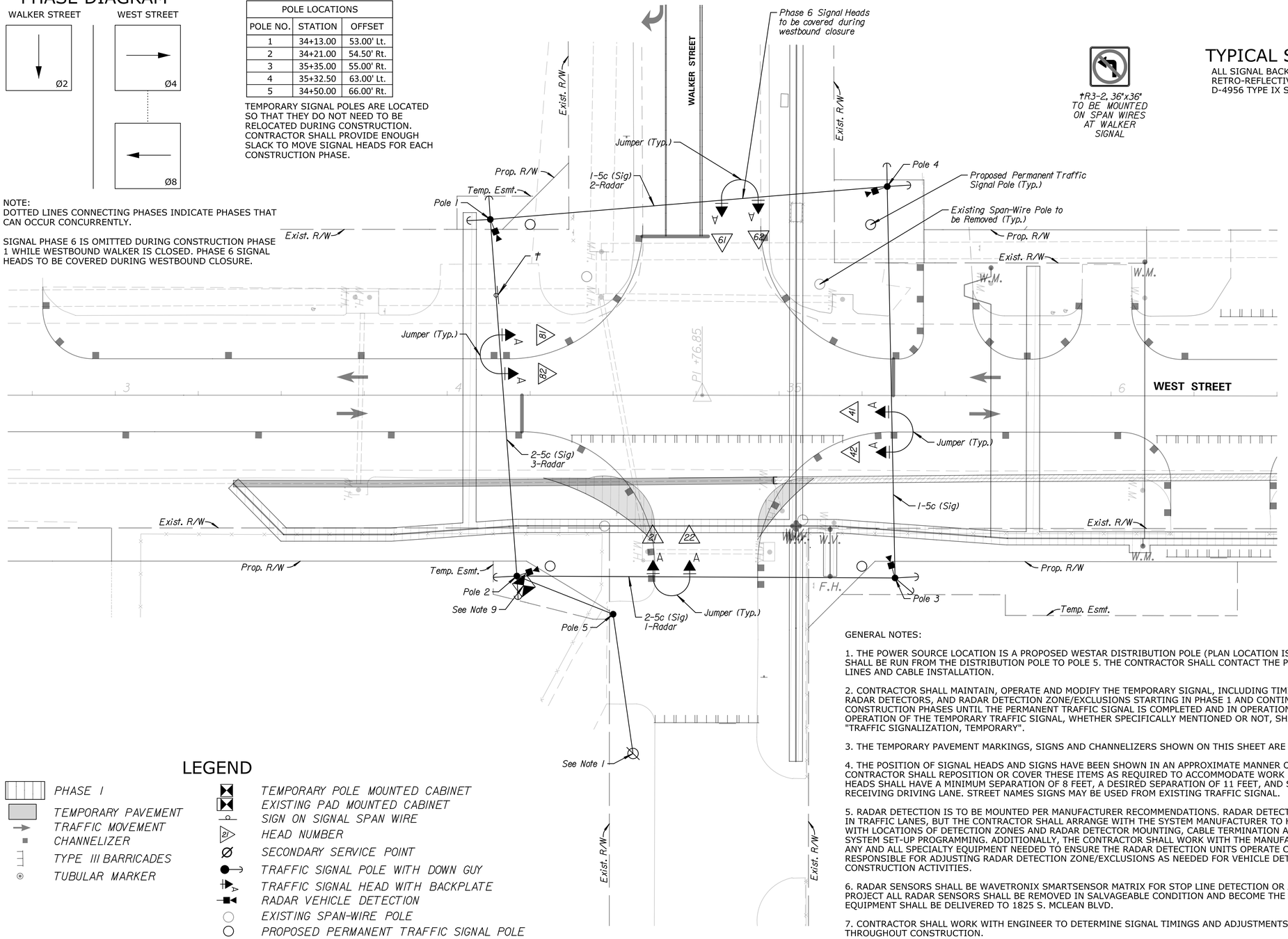
PHASE DIAGRAM

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	34+13.00	53.00' Lt.
2	34+21.00	54.50' Rt.
3	35+35.00	55.00' Rt.
4	35+32.50	63.00' Lt.
5	34+50.00	66.00' Rt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

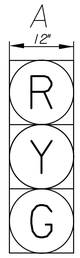
SIGNAL PHASE 6 IS OMITTED DURING CONSTRUCTION PHASE 1 WHILE WESTBOUND WALKER IS CLOSED. PHASE 6 SIGNAL HEADS TO BE COVERED DURING WESTBOUND CLOSURE.



†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT WALKER SIGNAL

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.



LEGEND

- PHASE I
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION
- EXISTING SPAN-WIRE POLE
- PROPOSED PERMANENT TRAFFIC SIGNAL POLE

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 1 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 1. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE. STREET NAMES SIGNS MAY BE USED FROM EXISTING TRAFFIC SIGNAL.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH LOCATIONS OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL. AT COMPLETION OF THE PROJECT ALL RADAR SENSORS SHALL BE REMOVED IN SALVAGEABLE CONDITION AND BECOME THE PROPERTY OF THE CITY OF WICHITA. EQUIPMENT SHALL BE DELIVERED TO 1825 S. MCLEAN BLVD.

7. CONTRACTOR SHALL WORK WITH ENGINEER TO DETERMINE SIGNAL TIMINGS AND ADJUSTMENTS AS NEEDED FOR SATISFACTORY OPERATION THROUGHOUT CONSTRUCTION.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

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FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
WALKER STREET
PHASE 1

SHEET NO.
161
SHEET 161 OF 262

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

PHASE DIAGRAM

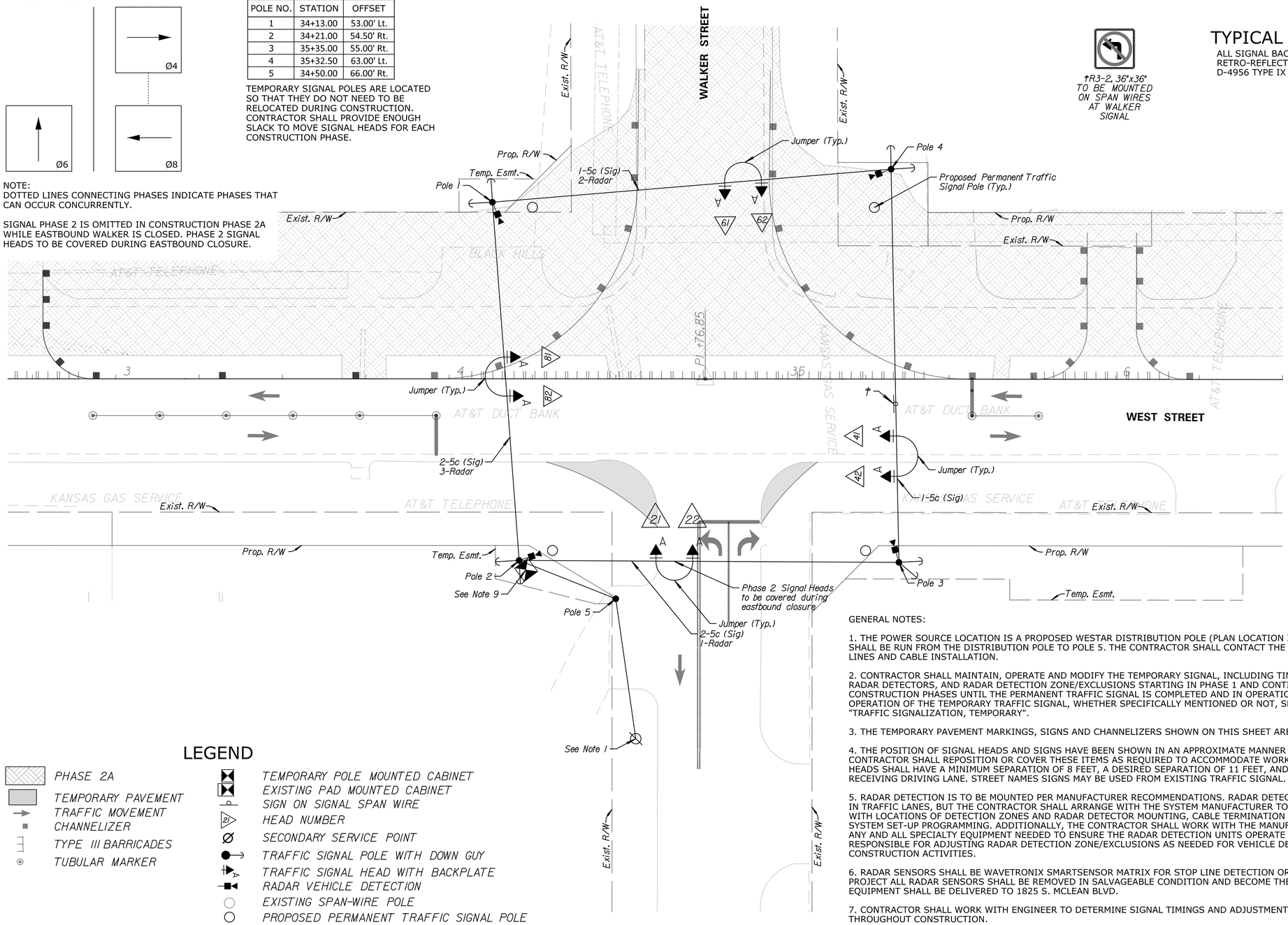
NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

SIGNAL PHASE 2 IS OMITTED IN CONSTRUCTION PHASE 2A WHILE EASTBOUND WALKER IS CLOSED. PHASE 2 SIGNAL HEADS TO BE COVERED DURING EASTBOUND CLOSURE.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	34+13.00	53.00' Lt.
2	34+21.00	54.50' Rt.
3	35+35.00	55.00' Rt.
4	35+32.50	63.00' Lt.
5	34+50.00	66.00' Rt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

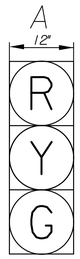
SCALE
PLAN: Lat. & Long. 15' 0 15' 30'



†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT WALKER SIGNAL

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.



LEGEND

- PHASE 2A
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION
- EXISTING SPAN-WIRE POLE
- PROPOSED PERMANENT TRAFFIC SIGNAL POLE

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 1 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 2A. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE. STREET NAMES SIGNS MAY BE USED FROM EXISTING TRAFFIC SIGNAL.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH LOCATIONS OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL. AT COMPLETION OF THE PROJECT ALL RADAR SENSORS SHALL BE REMOVED IN SALVAGEABLE CONDITION AND BECOME THE PROPERTY OF THE CITY OF WICHITA. EQUIPMENT SHALL BE DELIVERED TO 1825 S. MCLEAN BLVD.

7. CONTRACTOR SHALL WORK WITH ENGINEER TO DETERMINE SIGNAL TIMINGS AND ADJUSTMENTS AS NEEDED FOR SATISFACTORY OPERATION THROUGHOUT CONSTRUCTION.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN WALKER STREET PHASE 2a

SHEET NO.
162
SHEET 162 OF 262

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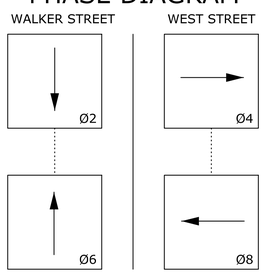
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

PHASE DIAGRAM

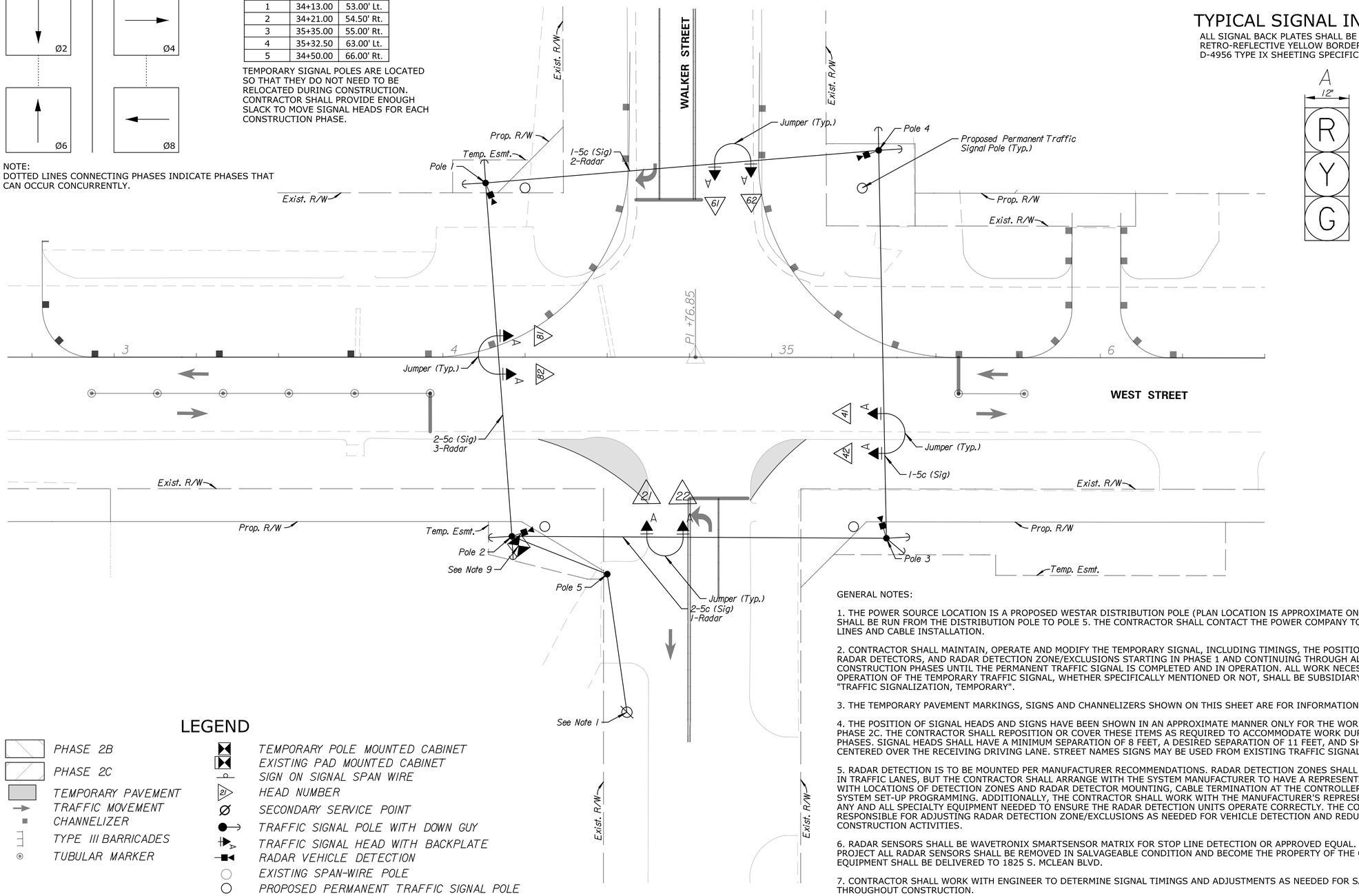


NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	34+13.00	53.00' Lt.
2	34+21.00	54.50' Rt.
3	35+35.00	55.00' Rt.
4	35+32.50	63.00' Lt.
5	34+50.00	66.00' Rt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

SCALE
PLAN: Lat. & Long. 15' 0 15' 30'



TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

LEGEND

- PHASE 2B
- PHASE 2C
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN WALKER STREET PHASE 2b & 2c

SHEET NO.
163
SHEET 163 OF 262

mhoemer
2/25/2020 - 1:46:47 PM - c:\transystems\ow_local\transyscorp-pw1\mlroemer\d0519510\C-CPP-W01-303.dgn

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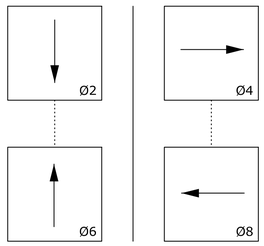
PHASE DIAGRAM



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SCALE
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PLAN: Lat. & Long.

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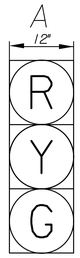

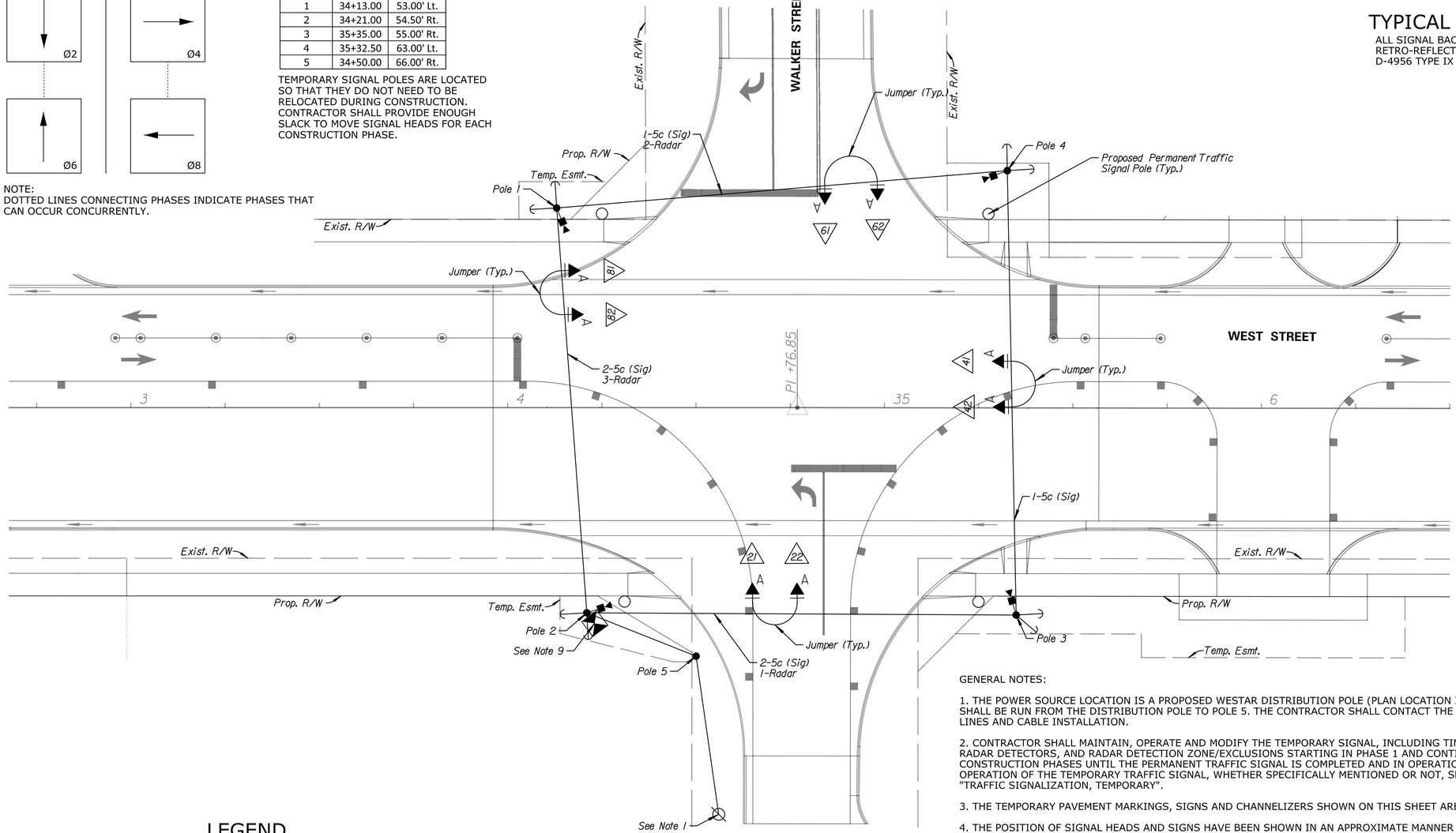

LEGEND

- PHASE 3A
- PHASE 3C
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
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CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=15'
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DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN WALKER STREET PHASE 3a & 3c

SHEET NO.
164
SHEET 164 OF 262

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

mhoerner
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PHASE DIAGRAM

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	34+13.00	53.00' Lt.
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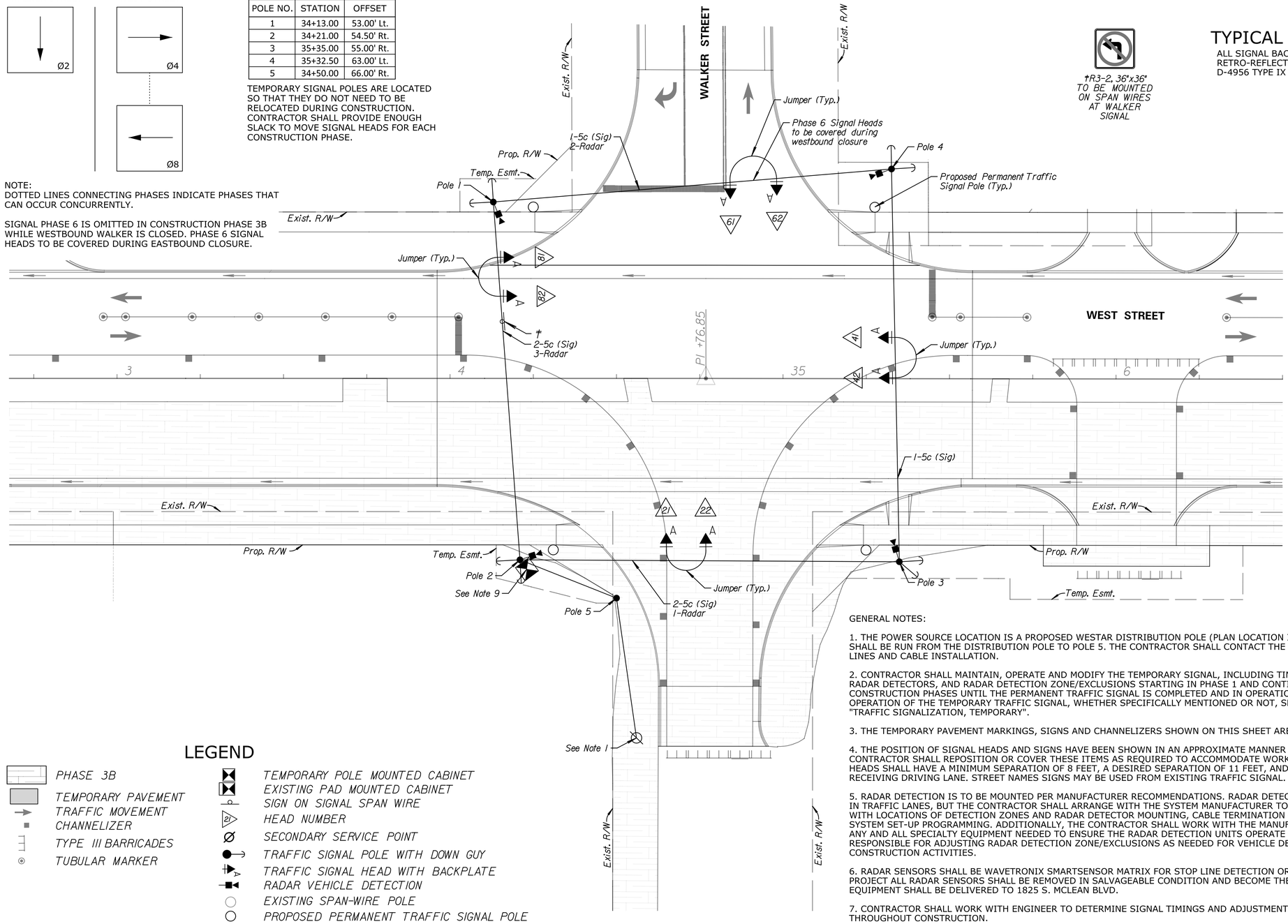
NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

SIGNAL PHASE 6 IS OMITTED IN CONSTRUCTION PHASE 3B WHILE WESTBOUND WALKER IS CLOSED. PHASE 6 SIGNAL HEADS TO BE COVERED DURING EASTBOUND CLOSURE.



†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT WALKER SIGNAL

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.

TYPICAL SIGNAL INDICATIONS

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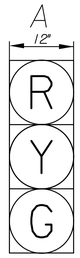

LEGEND

- PHASE 3B
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
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DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN WALKER STREET PHASE 3b

SHEET NO.
165
SHEET 165 OF 262

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

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PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

PHASE 2 & 6 SHALL BE RIGHT TURNS ONLY IN CONSTRUCTION PHASE 4A DURING CONSTRUCTION THROUGH THE INTERSECTION.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
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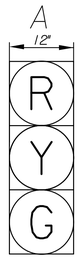

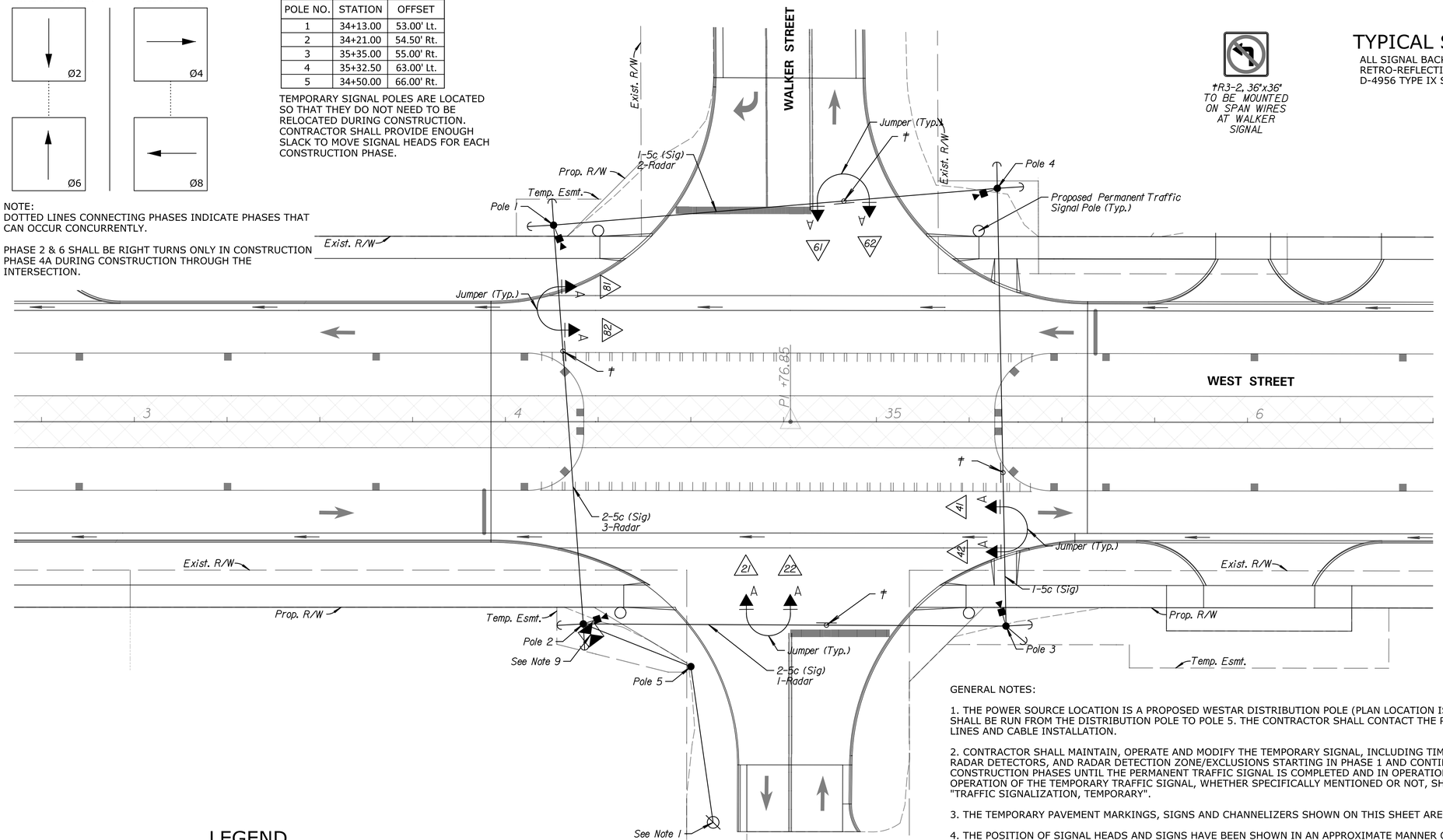

LEGEND

- PHASE 4A
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION
- EXISTING SPAN-WIRE POLE
- PROPOSED PERMANENT TRAFFIC SIGNAL POLE

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 1 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 4A. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE. STREET NAMES SIGNS MAY BE USED FROM EXISTING TRAFFIC SIGNAL.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH LOCATIONS OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL. AT COMPLETION OF THE PROJECT ALL RADAR SENSORS SHALL BE REMOVED IN SALVAGEABLE CONDITION AND BECOME THE PROPERTY OF THE CITY OF WICHITA. EQUIPMENT SHALL BE DELIVERED TO 1825 S. MCLEAN BLVD.

7. CONTRACTOR SHALL WORK WITH ENGINEER TO DETERMINE SIGNAL TIMINGS AND ADJUSTMENTS AS NEEDED FOR SATISFACTORY OPERATION THROUGHOUT CONSTRUCTION.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:
TEMPORARY TRAFFIC SIGNAL PLAN
WALKER STREET
PHASE 4a

SHEET NO.
166
SHEET 166 OF 262

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

PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

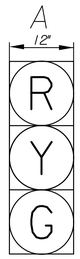
POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	34+13.00	53.00' Lt.
2	34+21.00	54.50' Rt.
3	35+35.00	55.00' Rt.
4	35+32.50	63.00' Lt.
5	34+50.00	66.00' Rt.

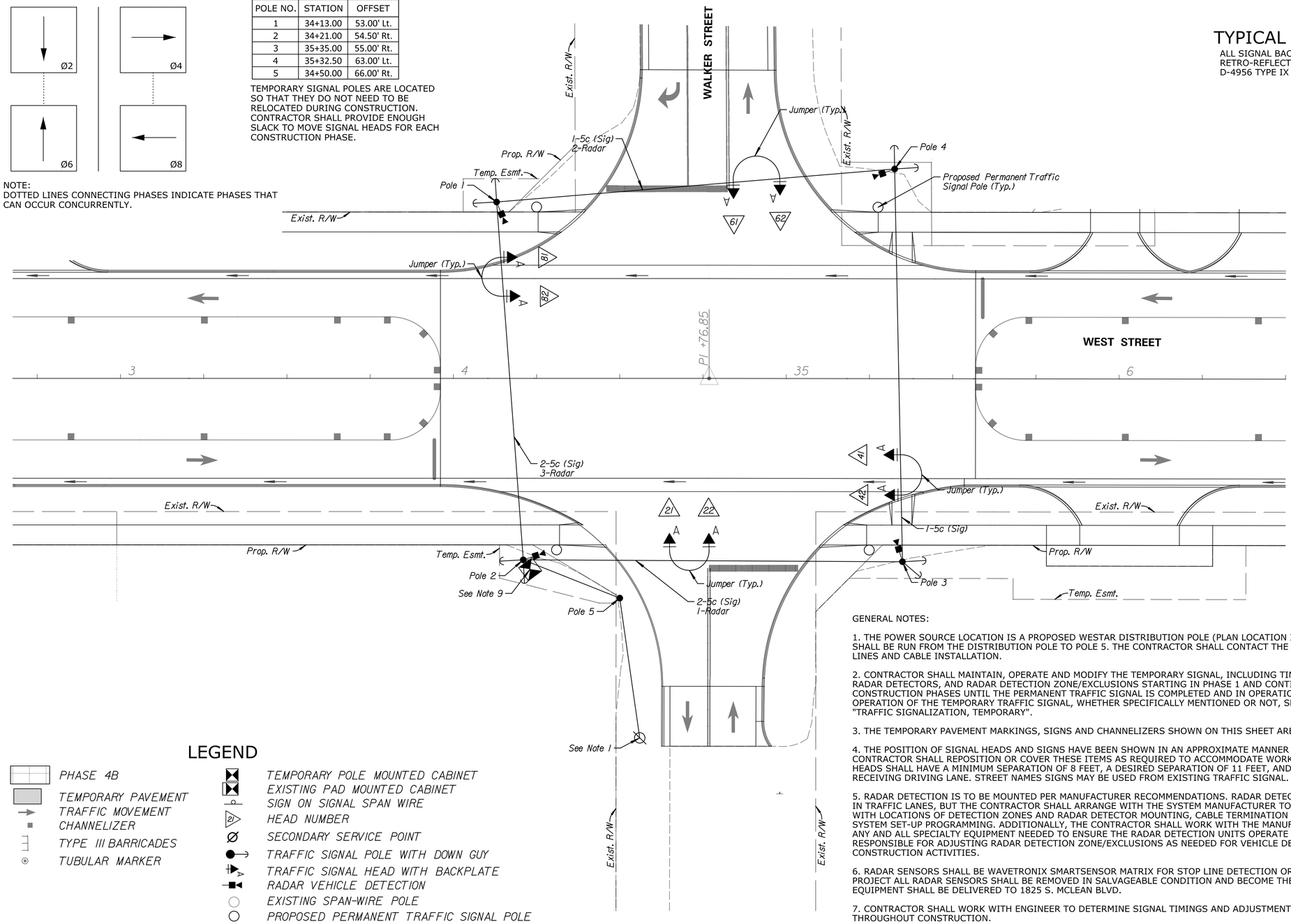
TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

SCALE
PLAN: Lat. & Long. 15' 0 15' 30'

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.





LEGEND

- PHASE 4B
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION
- EXISTING SPAN-WIRE POLE
- PROPOSED PERMANENT TRAFFIC SIGNAL POLE

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3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 4B. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE. STREET NAMES SIGNS MAY BE USED FROM EXISTING TRAFFIC SIGNAL.

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CONSULTANTS:

REVISIONS:

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WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS
CITY OF WICHITA

PROJ NO:	472-85296
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DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:
TEMPORARY TRAFFIC SIGNAL PLAN
WALKER STREET
PHASE 4b

SHEET NO.
167
SHEET 167 OF 262

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

PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

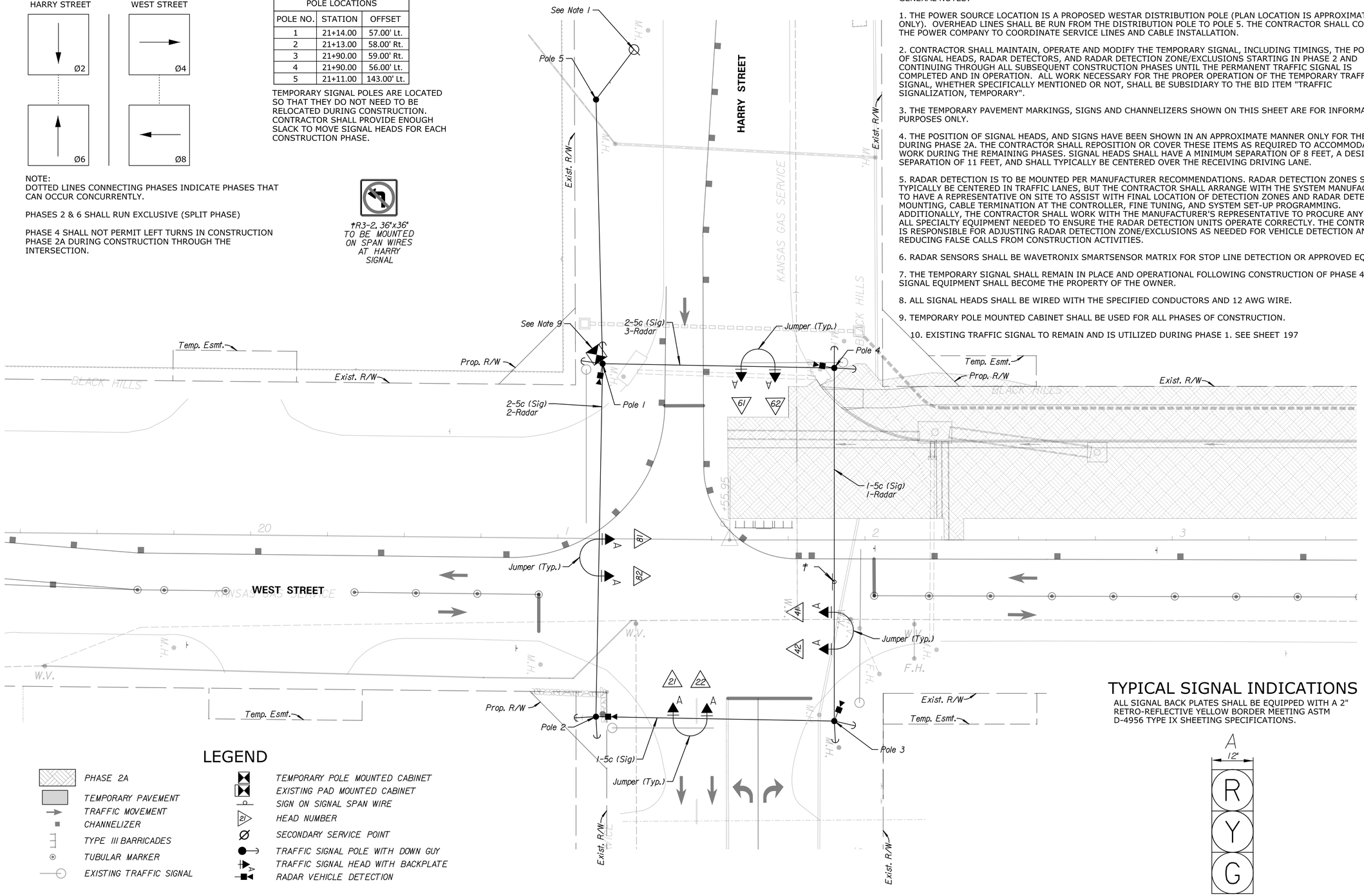
PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

PHASE 4 SHALL NOT PERMIT LEFT TURNS IN CONSTRUCTION PHASE 2A DURING CONSTRUCTION THROUGH THE INTERSECTION.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
3	21+90.00	59.00' Rt.
4	21+90.00	56.00' Lt.
5	21+11.00	143.00' Lt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

↑R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT HARRY SIGNAL



LEGEND

- PHASE 2A
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.

GENERAL NOTES:

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3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

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6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

TranSystems
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FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 2a

SHEET NO.
168

SHEET 168 OF 262

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

PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

SIGNAL PHASE 2 IS OMITTED DURING CONSTRUCTION PHASE 2B WHILE EASTBOUND HARRY IS CLOSED. PHASE 2 SIGNAL HEADS TO BE CVOVER DURING EASTBOND CLOSURE.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
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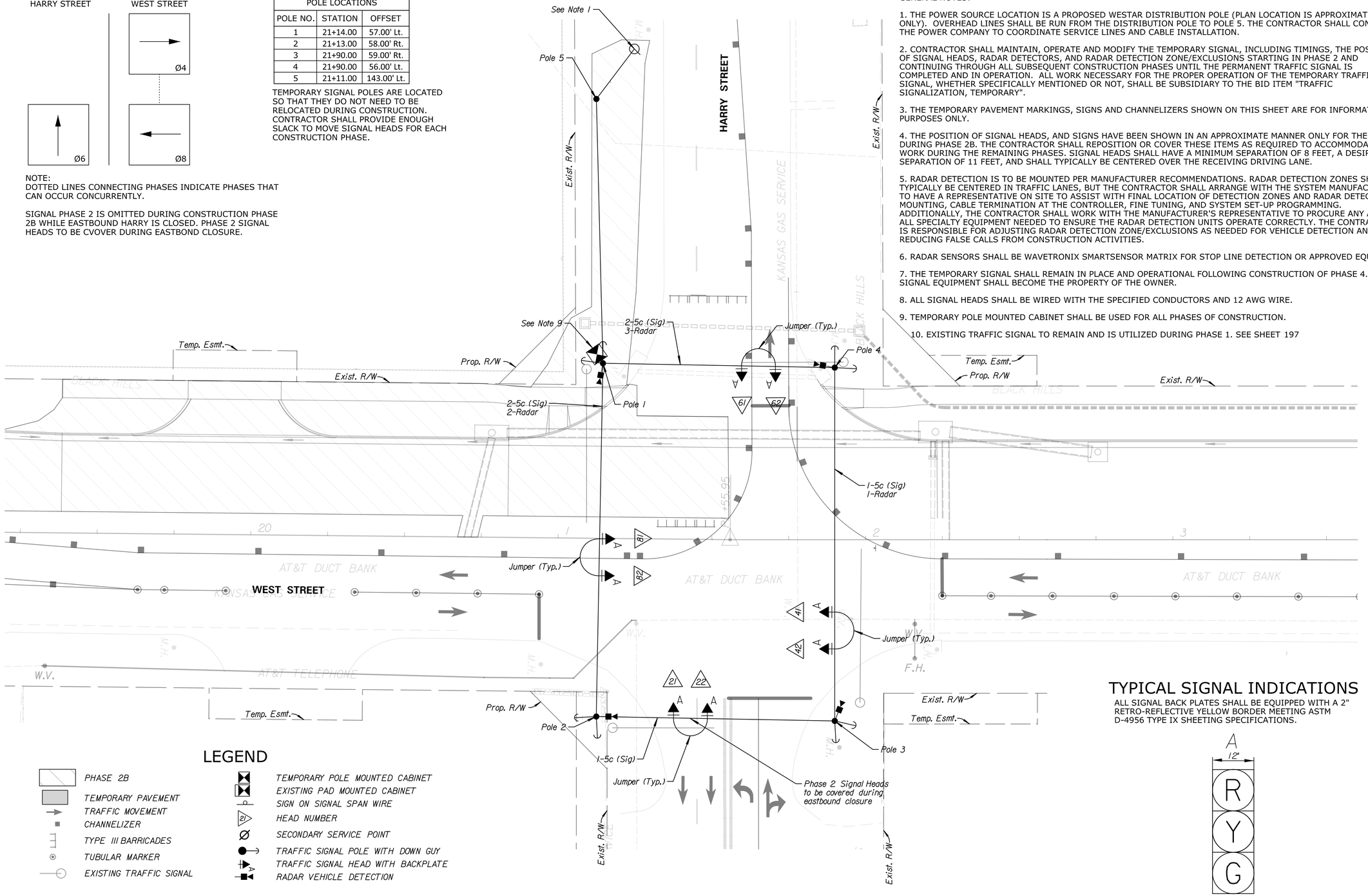
TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.



LEGEND

- PHASE 2B
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.

GENERAL NOTES:

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SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 2b

SHEET NO.
169
SHEET 169 OF 262

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PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

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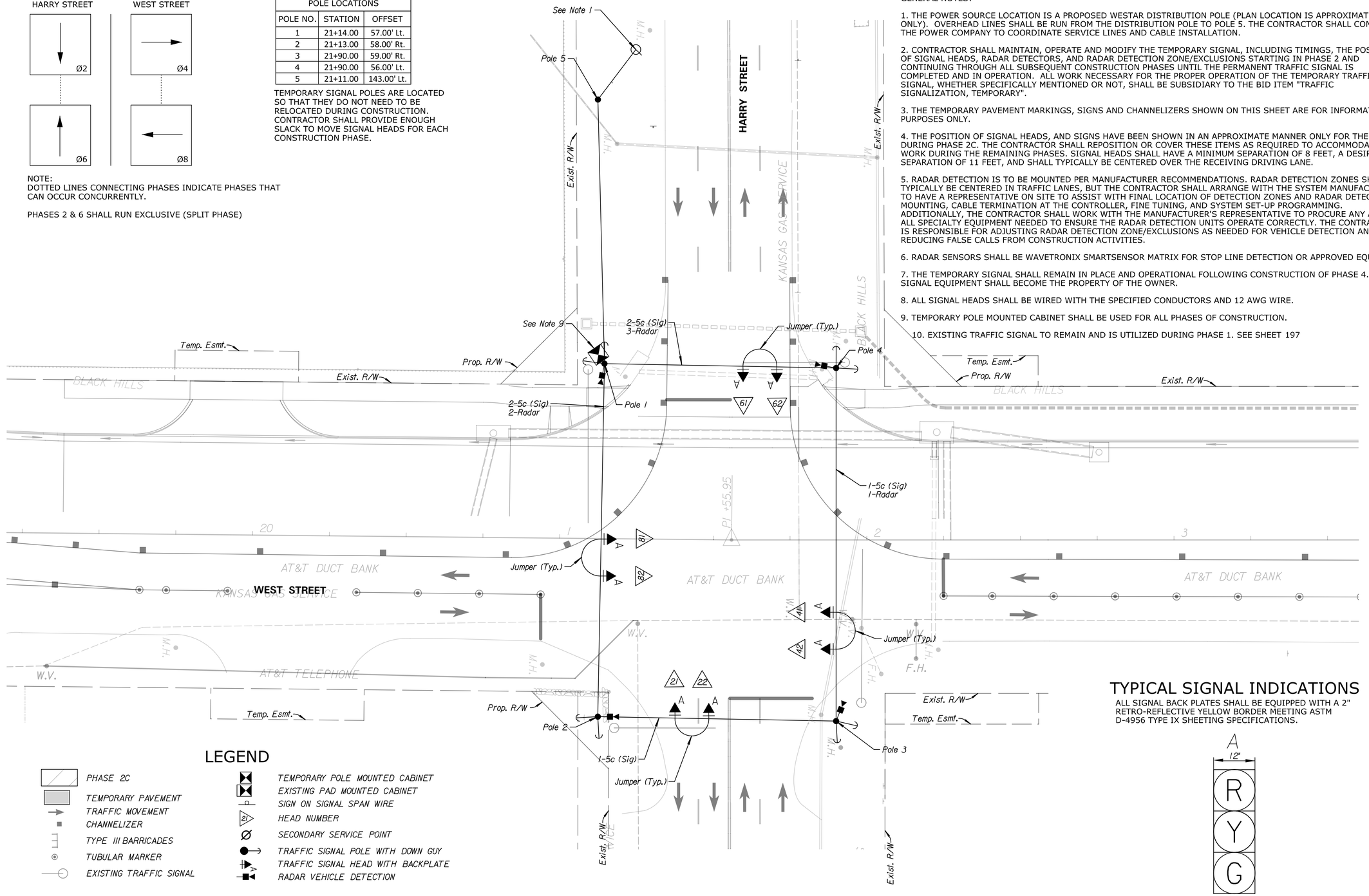
PLAN: Lat. & Long.



LEGEND

- PHASE 2C
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
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- HEAD NUMBER
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6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 2c

SHEET NO.
170

SHEET 170 OF 262

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

PHASE DIAGRAM

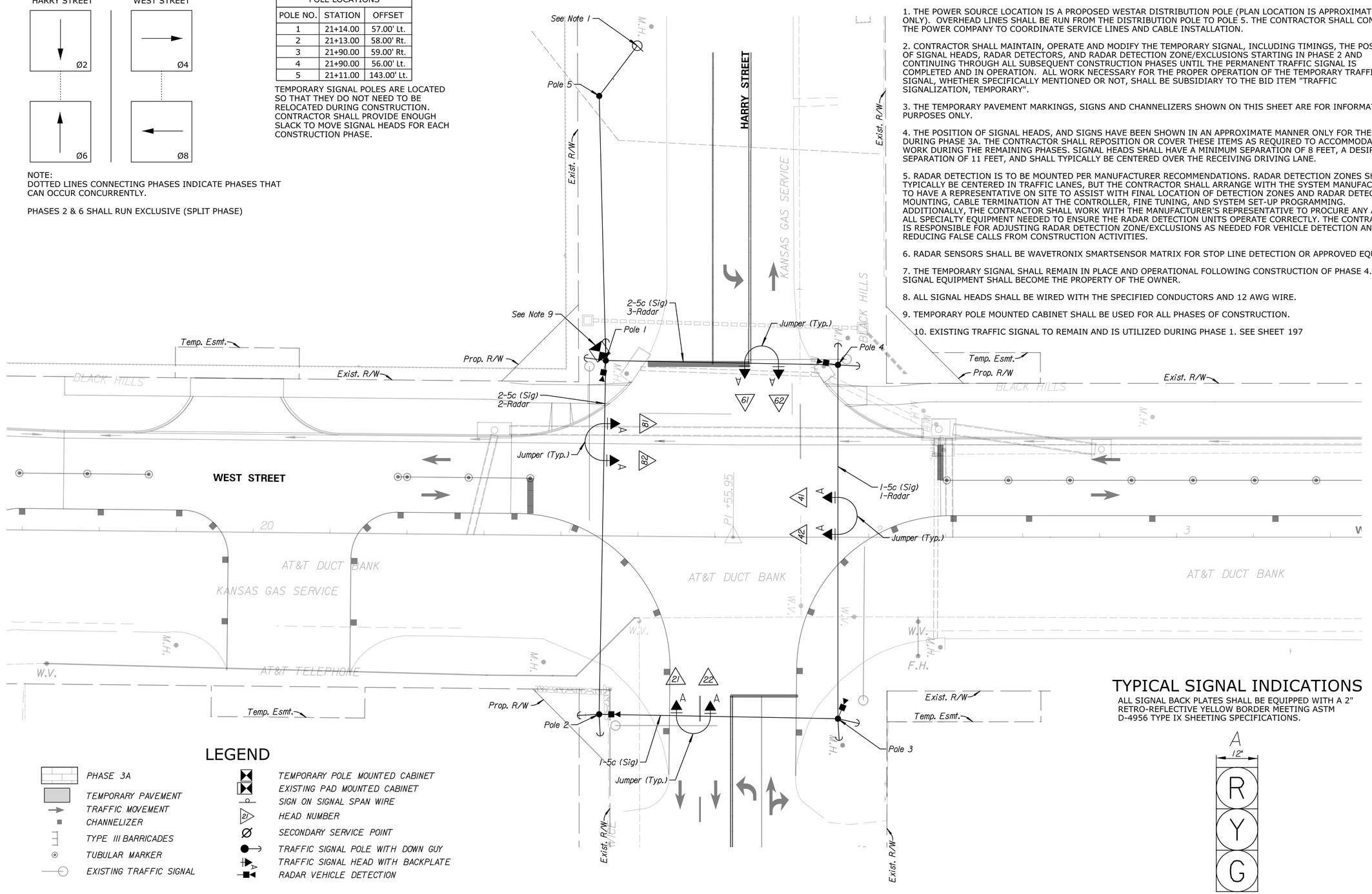
NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
3	21+90.00	59.00' Rt.
4	21+90.00	56.00' Lt.
5	21+11.00	143.00' Lt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.



GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 2 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS, AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 3A. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH FINAL LOCATION OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

LEGEND

- PHASE 3A
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

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CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 3a

SHEET NO.
171
SHEET 171 OF 262

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

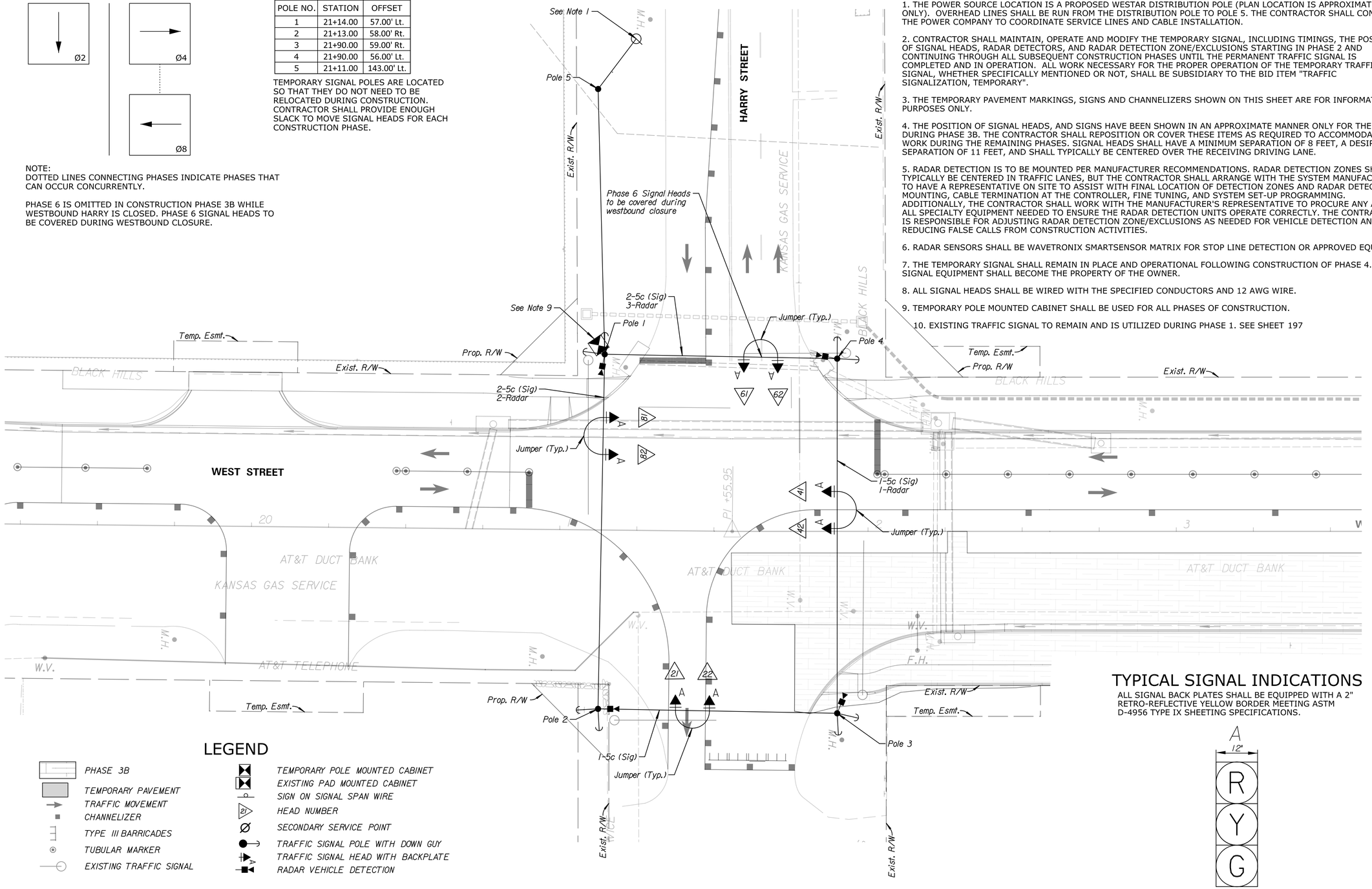
PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

PHASE 6 IS OMITTED IN CONSTRUCTION PHASE 3B WHILE WESTBOUND HARRY IS CLOSED. PHASE 6 SIGNAL HEADS TO BE COVERED DURING WESTBOUND CLOSURE.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
3	21+90.00	59.00' Rt.
4	21+90.00	56.00' Lt.
5	21+11.00	143.00' Lt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.



LEGEND

- PHASE 3B
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 2 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS, AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 3B. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH FINAL LOCATION OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 3b

SHEET NO.
172

SHEET 172 OF 262

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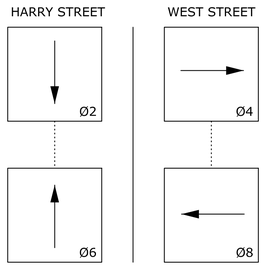
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

PHASE DIAGRAM



NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

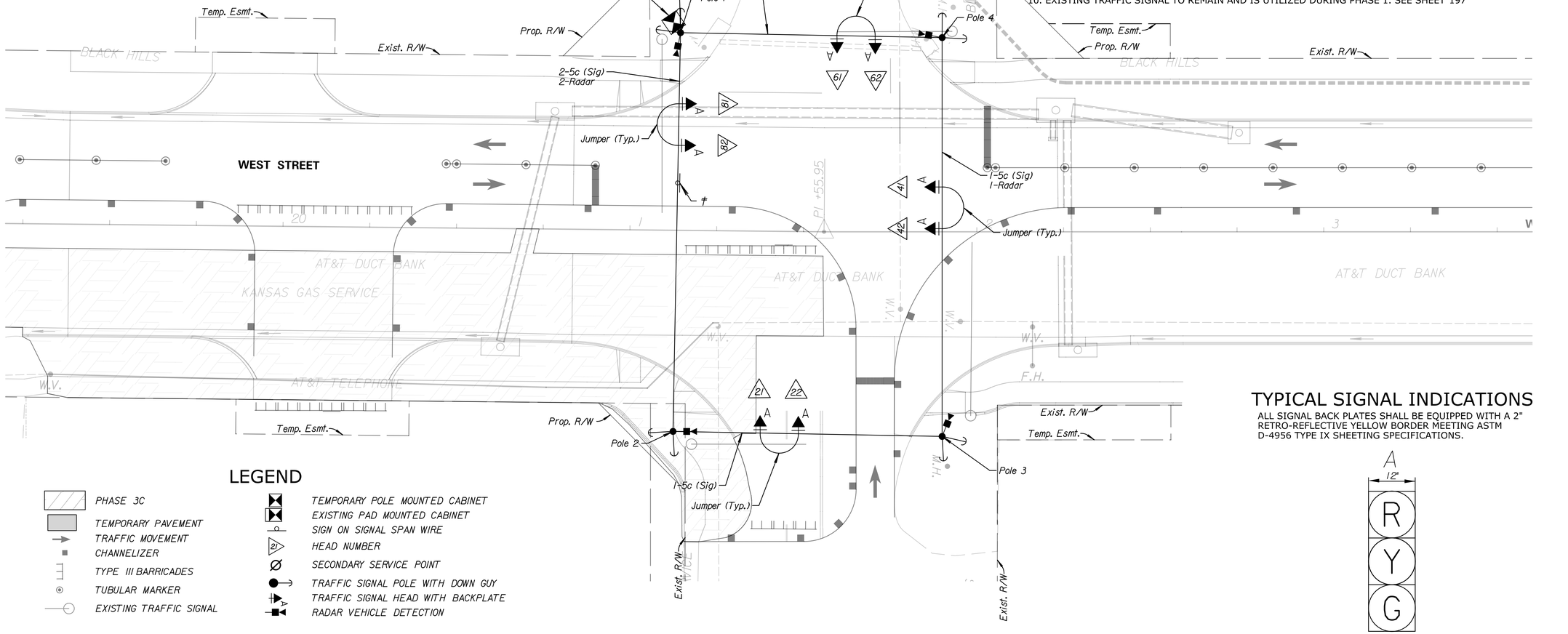
PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

PHASE 8 SHALL NOT PERMIT LEFT TURNS IN CONSTRUCTION PHASE 3C DURING CONSTRUCTION THROUGH THE INTERSECTION.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
3	21+90.00	59.00' Rt.
4	21+90.00	56.00' Lt.
5	21+11.00	143.00' Lt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT HARRY SIGNAL



LEGEND

- PHASE 3C
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 2 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS, AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 3C. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH FINAL LOCATION OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

TranSystems
245 NORTH WACO
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WICHITA, KANSAS 67202
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

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PROJ NO:	472-85296
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SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 3c

SHEET NO.
173

SHEET 173 OF 262

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

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PHASE DIAGRAM

NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.

PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

NO LEFT TURNS ARE PERMITTED IN CONSTRUCTION PHASE 4A DURING CONSTRUCTION THROUGH THE INTERSECTION. DURING THIS TIME, PHASE 6 SHALL BE RIGHT-TURN ONLY AND PHASE 2 SHALL BE RIGHT-TURN AND THRU ONLY.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
1	21+14.00	57.00' Lt.
2	21+13.00	58.00' Rt.
3	21+90.00	59.00' Rt.
4	21+90.00	56.00' Lt.
5	21+11.00	143.00' Lt.

TEMPORARY SIGNAL POLES ARE LOCATED SO THAT THEY DO NOT NEED TO BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENOUGH SLACK TO MOVE SIGNAL HEADS FOR EACH CONSTRUCTION PHASE.

†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT HARRY SIGNAL

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

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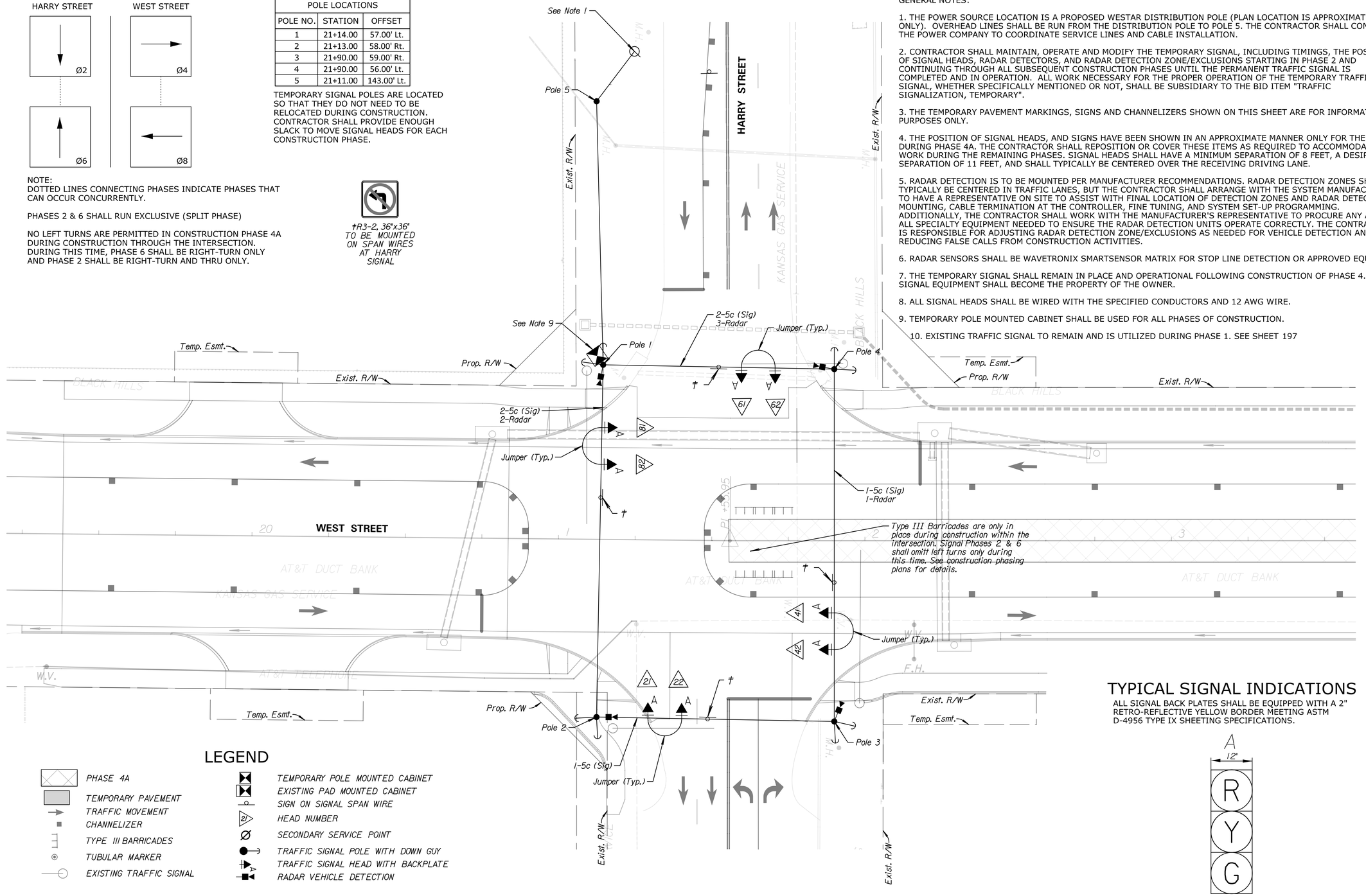

LEGEND

- PHASE 4A
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
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TEMPORARY TRAFFIC SIGNAL PLAN HARRY STREET PHASE 4a

SHEET NO.
174
SHEET 174 OF 262

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PHASE DIAGRAM

NOTE:
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PHASES 2 & 6 SHALL RUN EXCLUSIVE (SPLIT PHASE)

NO LEFT TURNS ARE PERMITTED IN CONSTRUCTION PHASE 4B DURING CONSTRUCTION THROUGH THE INTERSECTION. DURING THIS TIME, PHASE 2 SHALL BE RIGHT-TURN ONLY AND PHASE 6 SHALL BE RIGHT-TURN AND THRU ONLY.

POLE LOCATIONS		
POLE NO.	STATION	OFFSET
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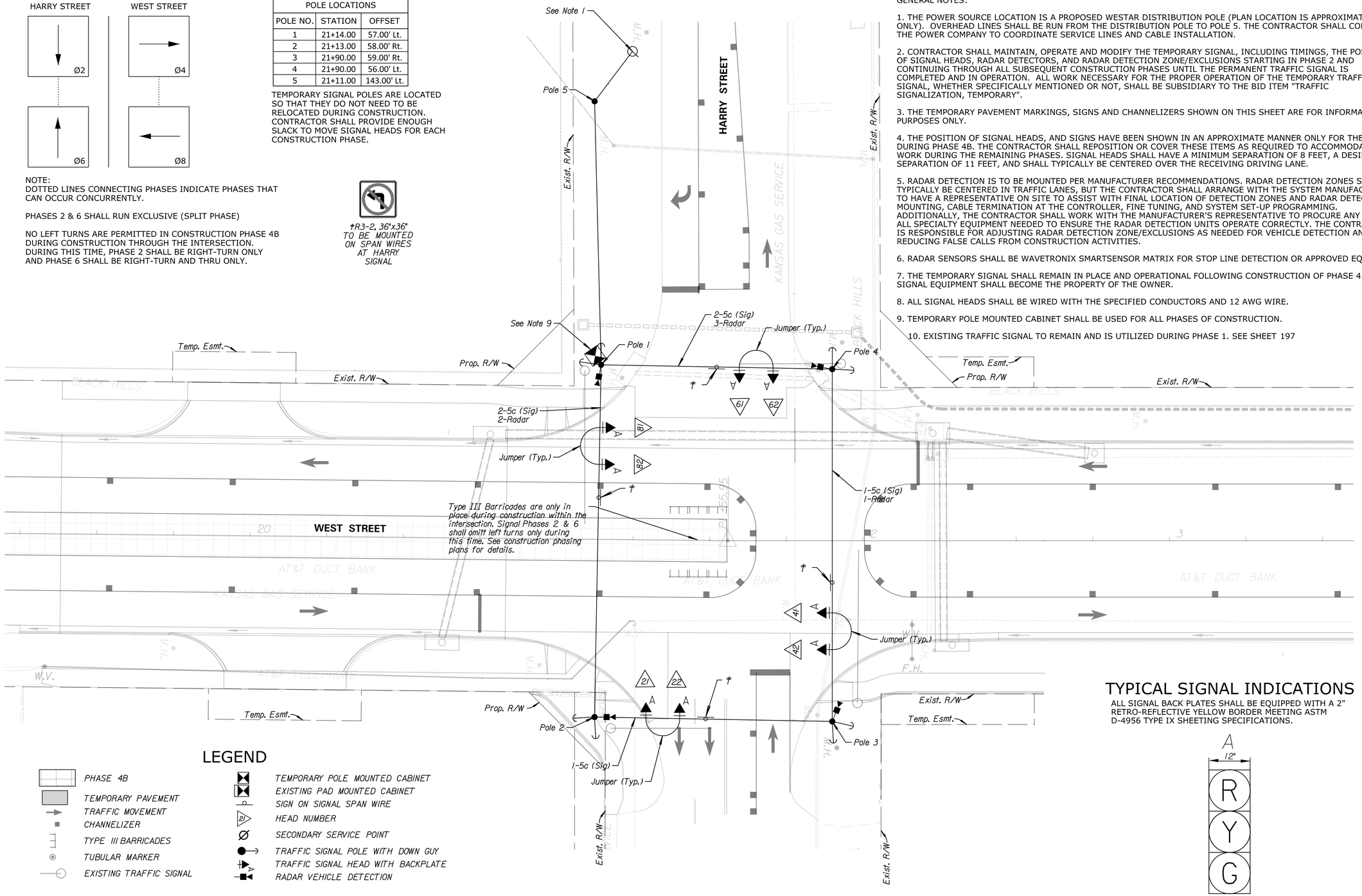
†R3-2, 36"x36" TO BE MOUNTED ON SPAN WIRES AT HARRY SIGNAL

SCALE
15' 0 15' 30'
PLAN: Lat. & Long.



LEGEND

- PHASE 4B
- TEMPORARY PAVEMENT
- TRAFFIC MOVEMENT
- CHANNELIZER
- TYPE III BARRICADES
- TUBULAR MARKER
- EXISTING TRAFFIC SIGNAL
- TEMPORARY POLE MOUNTED CABINET
- EXISTING PAD MOUNTED CABINET
- SIGN ON SIGNAL SPAN WIRE
- HEAD NUMBER
- SECONDARY SERVICE POINT
- TRAFFIC SIGNAL POLE WITH DOWN GUY
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- RADAR VEHICLE DETECTION

GENERAL NOTES:

1. THE POWER SOURCE LOCATION IS A PROPOSED WESTAR DISTRIBUTION POLE (PLAN LOCATION IS APPROXIMATE ONLY). OVERHEAD LINES SHALL BE RUN FROM THE DISTRIBUTION POLE TO POLE 5. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO COORDINATE SERVICE LINES AND CABLE INSTALLATION.

2. CONTRACTOR SHALL MAINTAIN, OPERATE AND MODIFY THE TEMPORARY SIGNAL, INCLUDING TIMINGS, THE POSITION OF SIGNAL HEADS, RADAR DETECTORS, AND RADAR DETECTION ZONE/EXCLUSIONS STARTING IN PHASE 2 AND CONTINUING THROUGH ALL SUBSEQUENT CONSTRUCTION PHASES UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION. ALL WORK NECESSARY FOR THE PROPER OPERATION OF THE TEMPORARY TRAFFIC SIGNAL, WHETHER SPECIFICALLY MENTIONED OR NOT, SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION, TEMPORARY".

3. THE TEMPORARY PAVEMENT MARKINGS, SIGNS AND CHANNELIZERS SHOWN ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY.

4. THE POSITION OF SIGNAL HEADS, AND SIGNS HAVE BEEN SHOWN IN AN APPROXIMATE MANNER ONLY FOR THE WORK DURING PHASE 4B. THE CONTRACTOR SHALL REPOSITION OR COVER THESE ITEMS AS REQUIRED TO ACCOMMODATE WORK DURING THE REMAINING PHASES. SIGNAL HEADS SHALL HAVE A MINIMUM SEPARATION OF 8 FEET, A DESIRED SEPARATION OF 11 FEET, AND SHALL TYPICALLY BE CENTERED OVER THE RECEIVING DRIVING LANE.

5. RADAR DETECTION IS TO BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. RADAR DETECTION ZONES SHALL TYPICALLY BE CENTERED IN TRAFFIC LANES, BUT THE CONTRACTOR SHALL ARRANGE WITH THE SYSTEM MANUFACTURER TO HAVE A REPRESENTATIVE ON SITE TO ASSIST WITH FINAL LOCATION OF DETECTION ZONES AND RADAR DETECTOR MOUNTING, CABLE TERMINATION AT THE CONTROLLER, FINE TUNING, AND SYSTEM SET-UP PROGRAMMING. ADDITIONALLY, THE CONTRACTOR SHALL WORK WITH THE MANUFACTURER'S REPRESENTATIVE TO PROCURE ANY AND ALL SPECIALTY EQUIPMENT NEEDED TO ENSURE THE RADAR DETECTION UNITS OPERATE CORRECTLY. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING RADAR DETECTION ZONE/EXCLUSIONS AS NEEDED FOR VEHICLE DETECTION AND REDUCING FALSE CALLS FROM CONSTRUCTION ACTIVITIES.

6. RADAR SENSORS SHALL BE WAVETRONIX SMARTSENSOR MATRIX FOR STOP LINE DETECTION OR APPROVED EQUAL.

7. THE TEMPORARY SIGNAL SHALL REMAIN IN PLACE AND OPERATIONAL FOLLOWING CONSTRUCTION OF PHASE 4. SIGNAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE OWNER.

8. ALL SIGNAL HEADS SHALL BE WIRED WITH THE SPECIFIED CONDUCTORS AND 12 AWG WIRE.

9. TEMPORARY POLE MOUNTED CABINET SHALL BE USED FOR ALL PHASES OF CONSTRUCTION.

10. EXISTING TRAFFIC SIGNAL TO REMAIN AND IS UTILIZED DURING PHASE 1. SEE SHEET 197

TYPICAL SIGNAL INDICATIONS

ALL SIGNAL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=15'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TEMPORARY TRAFFIC SIGNAL PLAN
HARRY STREET
PHASE 4b

SHEET NO.
175
SHEET 175 OF 262

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

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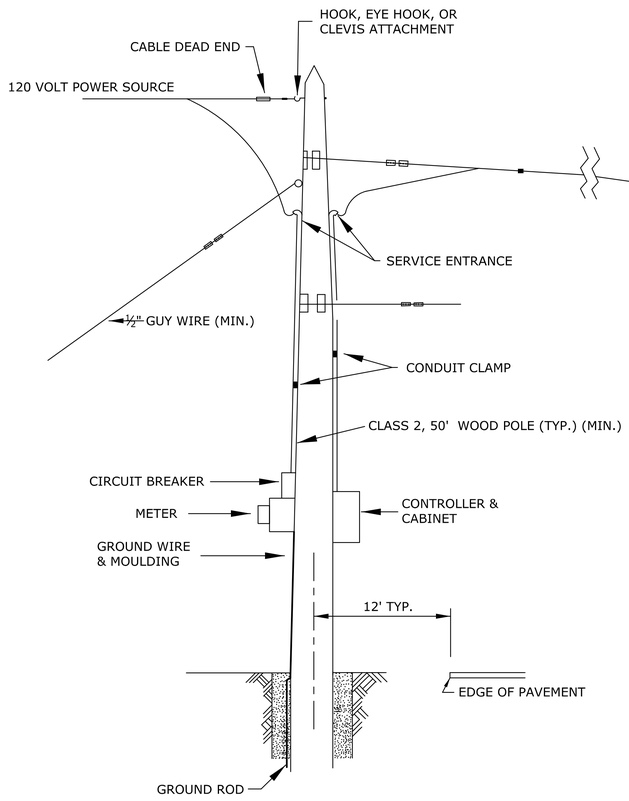
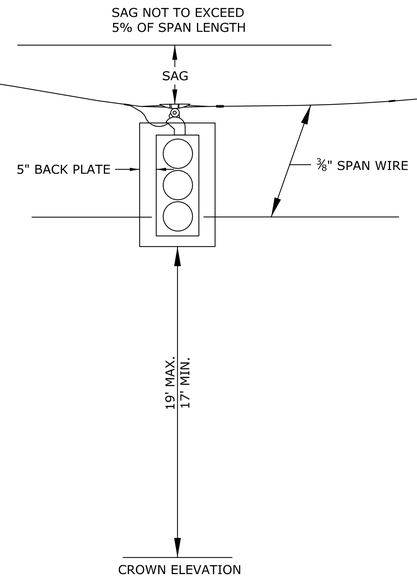
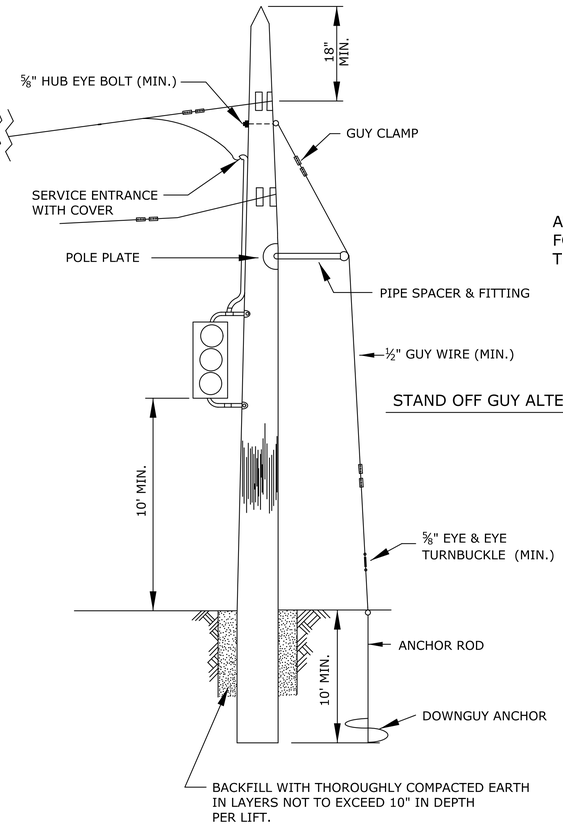
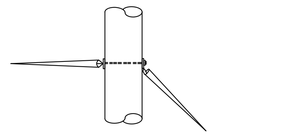






STAND OFF GUY ALTERNATE



ALTERNATE METHOD OF MOUNTING
FOR SPANWIRE & DOWNGUY
TRAFFIC SIGNAL SUPPORT POLE.

GENERAL NOTES

THE ENGINEER IN CHARGE OF CONSTRUCTION WILL NEED TO APPROVE ALL LOCATIONS FOR TRAFFIC SIGNAL POLES TO BE INSTALLED. FINAL POSITIONS & AIMING OF SIGNAL FACES TO BE DETERMINED IN THE FIELD.

THE TRAFFIC SIGNAL SYSTEM SHALL CONFORM TO AND BE OPERATED ACCORDING TO THE REQUIREMENTS OF THE LATEST M.U.T.C.D.

CONTACT LOCAL UTILITY COMPANIES TO ADVISE THEM OF INSTALLATION AND COORDINATE POWER HOOK-UP (IF APPLICABLE).

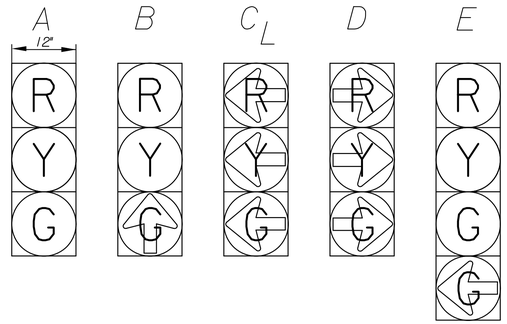
ALL WIRING INSTALLED SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES & REQUIREMENTS.

THE POWER SUPPLY AND THE OPERATION & MAINTENANCE OF THE SIGNAL SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SIGNAL TIMINGS FOR THE TEMPORARY SIGNAL THROUGHOUT THE DURATION OF THE PROJECT.

ALL APPLICABLE PORTIONS OF THE KDOT STANDARD SPECIFICATIONS FOR VEHICLE ACTUATED EQUIPMENT SHALL APPLY EXCEPT THAT A STANDARD 2070 CONFLICT MONITOR SHALL BE ACCEPTABLE.

CLASS OF POLE AND SPAN WIRE SIZE SHOWN ARE MINIMUM CLASS AND SIZE ALLOWED ON THE PROJECT. THE CONTRACTOR SHALL SUBMIT DETAILED DESIGN CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF KANSAS FOR REVIEW BY THE PROJECT ENGINEER THROUGH SHOP DRAWING SUBMITTALS.



TYPICAL SIGNAL INDICATIONS

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: N/A
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:
TEMPORARY TRAFFIC SIGNAL DETAILS

SHEET NO.
176
SHEET 176 OF 262

mhiesner
2/25/2020 - 1:48:45 PM - c:\transystems\pw_local\transyscorp-pw1\mhiesner\d0519510\C-CPP-A01-501.dgn

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

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.

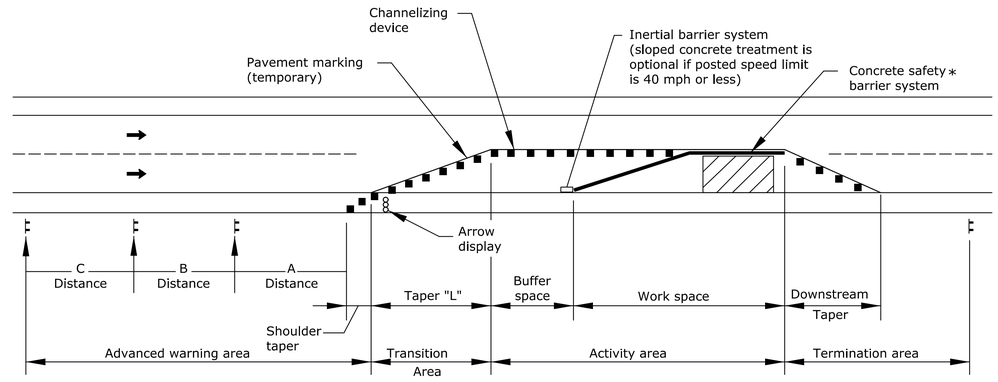
3) Consideration should be made to seperate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that 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 accessiblity features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved Pavement) or W8-7(Loose Gravel) a "C" distance after the W20-1 (Road Work Ahead) on mainline approaches. Signs may be used with the W8-15p motorcycle plaque as directed by the engineer. Display signs in advance of the condition 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 785-296-0355 or 785-296-1183.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	177	262



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 seperate 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
3				
2				
1	08/18/15	Channellzer spacing info	R.W.B.	K.E.

KANSAS DEPARTMENT OF TRANSPORTATION

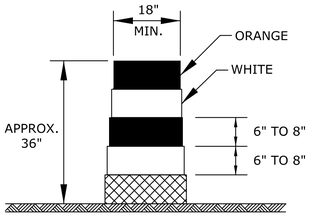
TRAFFIC CONTROL
GENERAL NOTES

TE700

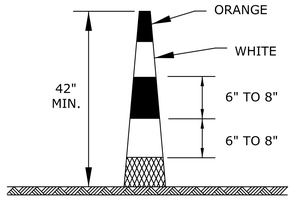
FHWA APPROVAL	08/18/15	APP'D	Kristina Ericksen
DESIGNED B.A.H.	DETAILED R.W.B	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

Plotted : 25-FEB-2020 13:48
Drawn By : Road
File : te700.dgn

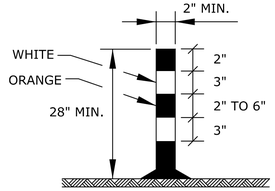
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	178	262



DRUM

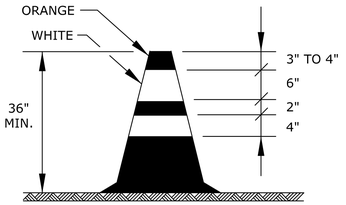


CONICAL DELINEATOR

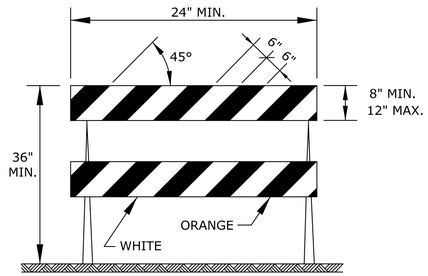


TUBULAR MARKER

Striping as shown for up to 42".

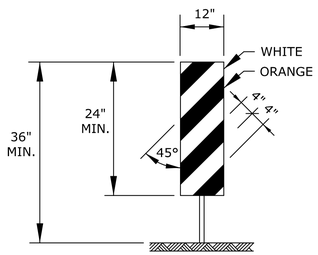


TRAFFIC CONE



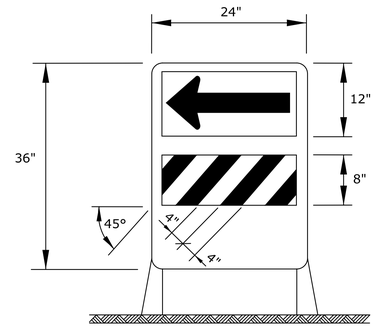
TYPE 2 BARRICADE

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



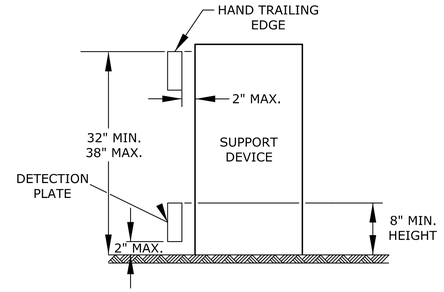
VERTICAL PANEL

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
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CHANNELIZING DEVICES

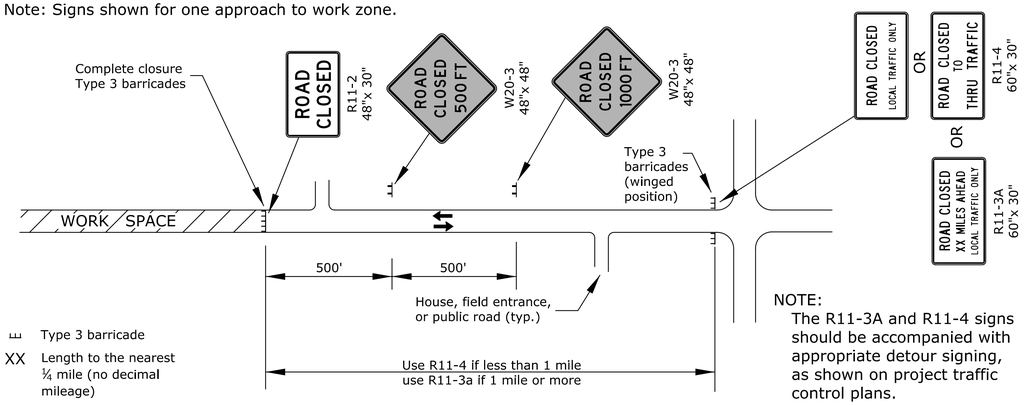
TE702

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 : 25-FEB-2020 13:48
Drawn By : Road
File : te702.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	179	262

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).

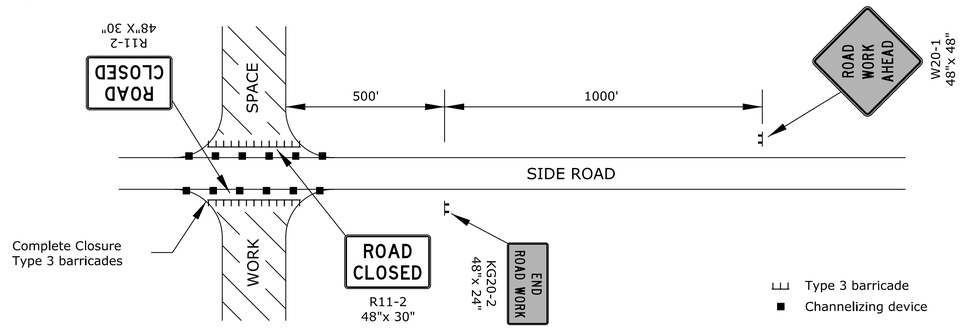


FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

Note: Signs shown for one approach to work zone.

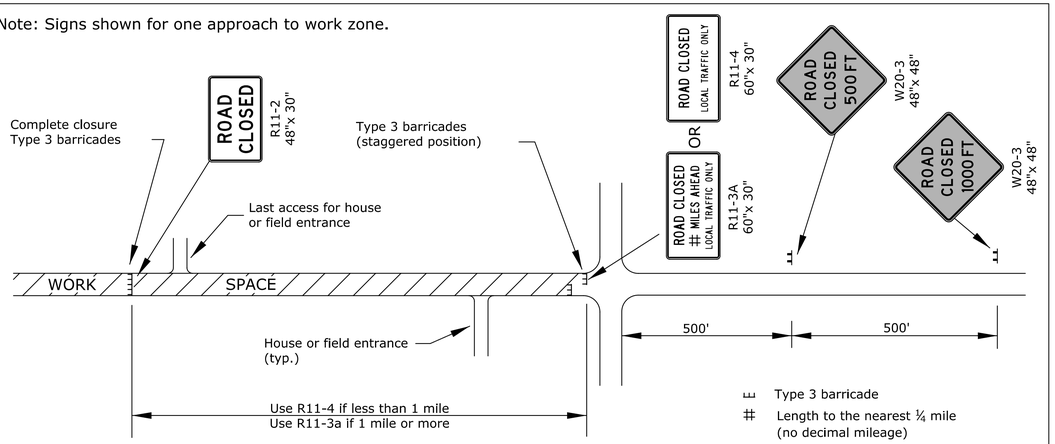


FIGURE 3: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

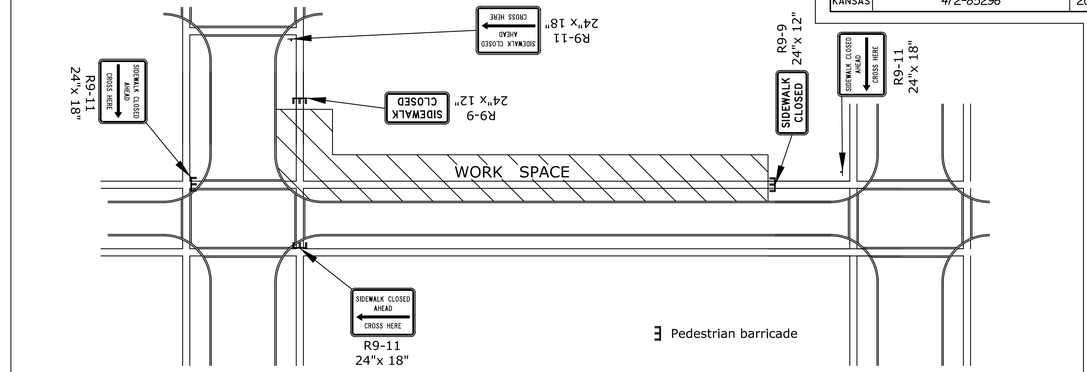
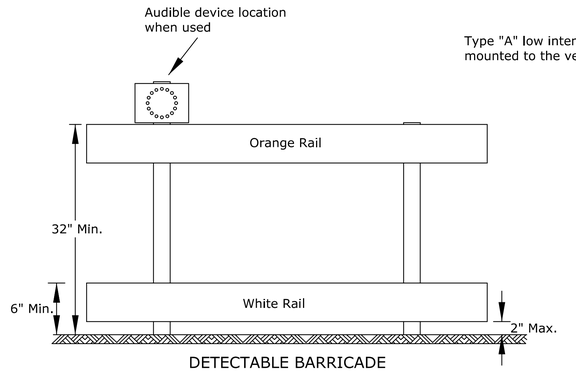
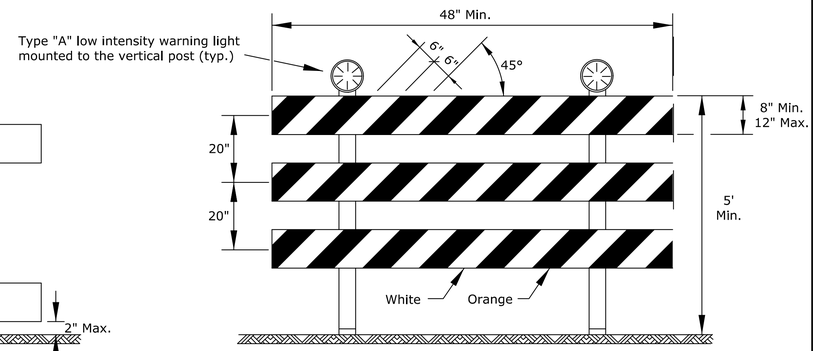


FIGURE 4: TYPICAL SIGNING FOR SIDEWALK CLOSED WITH OPPOSITE SIDEWALK AVAILABLE



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
3				
2				
1				

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 : 25-FEB-2020 13:48
Drawn By : Road
File : te704.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	180	262

SIGN LAYOUT INFORMATION

KG20-2

STD. SIZE EXPWY/FREEWAY
6" C
48"x 24"

KG20-5

STD. SIZE EXPWY/FREEWAY
6" C
48"x 24"

KM4-2O

STD. SIZE 3" C 24"x 6"
EXPWY/FREEWAY 6" C 48"x 12"

W7-3a

Mileage to be determined by the engineer.

W8-15

STD. SIZE EXPWY/FREEWAY
8" D
48"x 48"

W8-7

STD. SIZE EXPWY/FREEWAY
8" D
48"x 48"

W8-15p

STD. SIZE EXPWY/FREEWAY
30"x 24"

W8-17

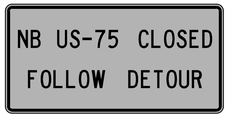
STD. SIZE EXPWY/FREEWAY
48"x 48"

W8-11

STD. SIZE EXPWY/FREEWAY
8" D
48"x 48"

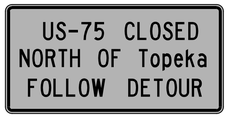
W8-17P
(OPTIONAL)

STD. SIZE EXPWY/FREEWAY
30"x 24"



SP-01
(SPECIAL SIGN)

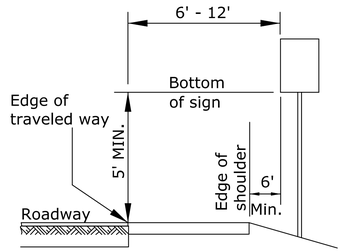
STD. SIZE 6" C
EXPWY/FREEWAY 10" D



SP-02
(SPECIAL SIGN)

STD. SIZE	EXPWY/FREEWAY
UPPERCASE: 6" C	UPPERCASE: 10" D
LOWERCASE: 4.5" C	LOWERCASE: 8" D

ALL CITY NAMES AND STREET NAMES ON SPECIAL SIGNS AND DESTINATION SIGNS MUST HAVE UPPER AND LOWER CASE LETTERS.

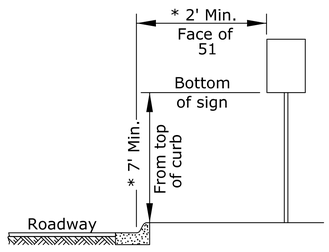


Rural

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

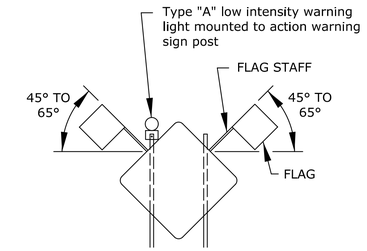
2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.

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.

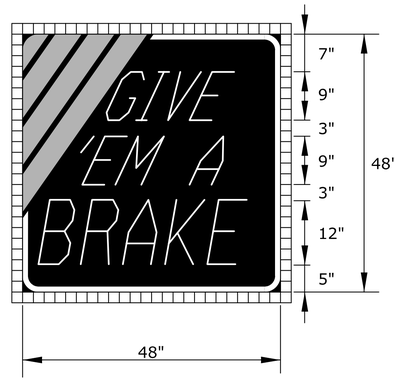
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

* 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.



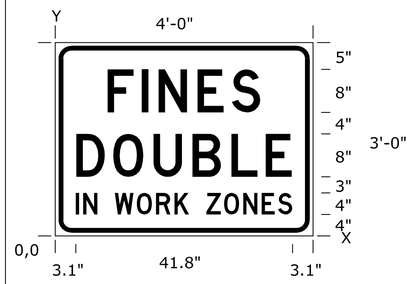
When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

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	X	F	I	N	E	S	X									8.0
	9.7	6.4	3.2	7.3	6.4	5.4	9.7									28.6
11.0 D	X	D	O	U	B	L	E	X								8.0
	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9								40.3
4.0 D	X	I	N	X	W	O	R	K	X	Z	O	N	E	S	X	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
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
SIGN INFORMATION

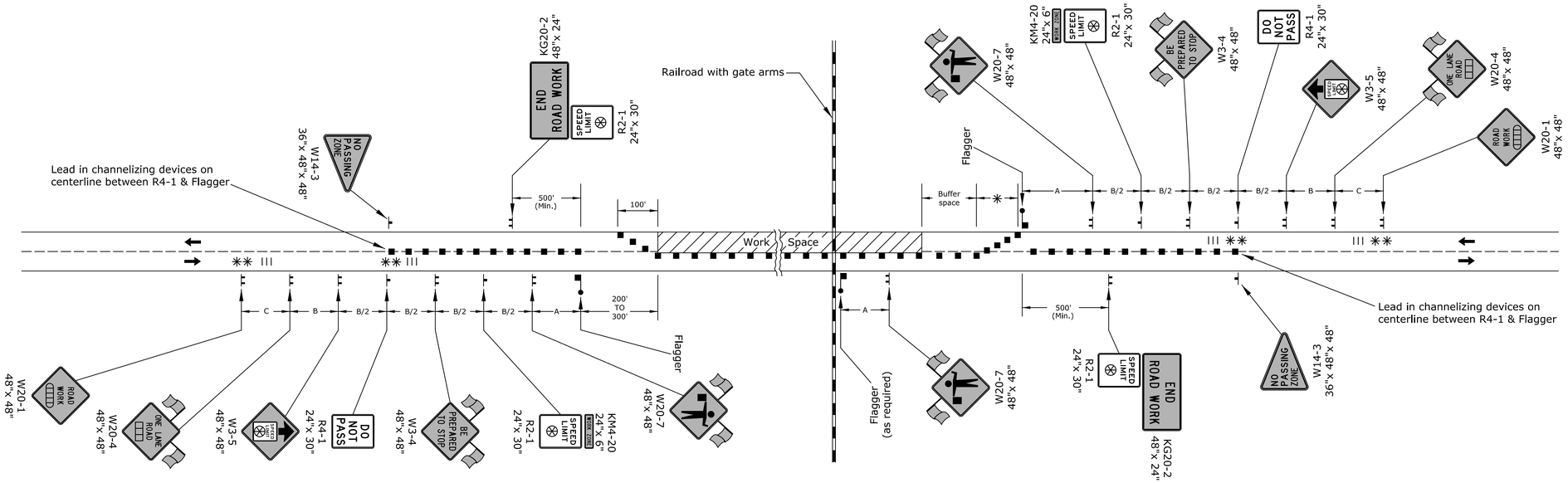
TE710

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

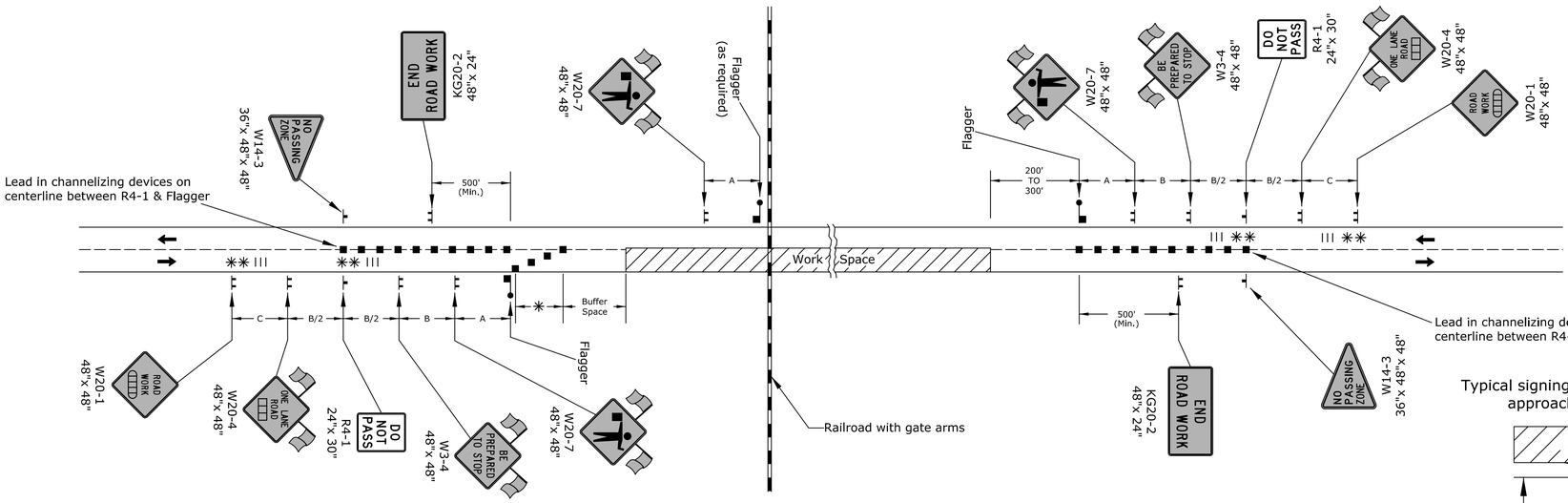
Plotted : 25-FEB-2020 13:48
Drawn By : Road
File : te710.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	181	262

FLAGGER



FLAGGER AND PILOT CAR



- ■ Channelizing device
- Ahead, 1500 ft, or 1 mile
- Ahead, 1000 ft, 1500 ft, or ½ mile
- Speed to be determined by the Engineer
- ○ Type "A" low intensity warning light
- III Temporary portable rumble strips

USE TE731 FOR FLAGGER OR PILOT CAR ON ROADWAYS WITH CONCRETE SHOULDERS GREATER THAN 8 FT.

Notes:

Trucks hauling material to the project should STOP at the Flagger. After stopping, upon approval of the Engineer, trucks may be allowed to move around the Flagger.

Place a Flagger at all highway and major collector intersections and at-grade railroad intersections with lights and gates in the work space to control traffic crossing the tracks to the left of the gate arm. The need for a Flagger at minor side road intersections shall be determined by the Engineer. Place a W20-7 (Flagger symbol) sign on each side road that is controlled by a Flagger.

Existing signs shall not be covered or removed between Flagger stations.

Temporary rumble strips may be used in lieu of lead in channelizing devices when the roadway is less than or equal to 30' including paved shoulders. When extenuating circumstances exist, the Area Engineer may elect to eliminate both the lead in channelizers and the rumble strips.

✳ Minimum six (6) channelizers spaced at 20' intervals.

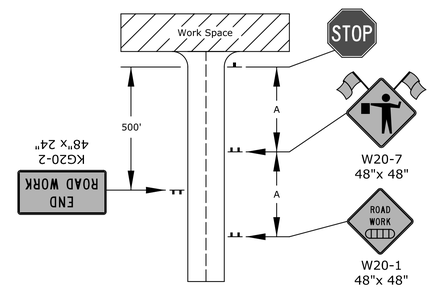
✳✳ Optional rumble strips may be placed: One set between the W20-1 and W20-4, and one set between the R4-1 and W3-4, on each approach.

△ Not required on substantial maintenance projects (1R).

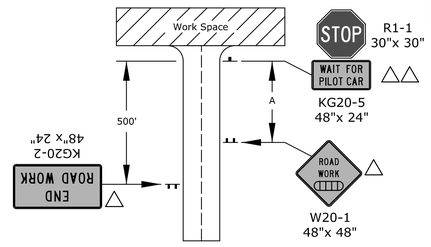
△△ The KG20-5 (WAIT FOR PILOT CAR) sign shall be mounted on an approved portable support and not attached to the existing stop sign post.

The KG20-5 sign shall be placed immediately in front of the existing stop sign, a minimum of 6" below the bottom of the stop sign. The sign should be removed or covered when there is no pilot car.

Typical signing for highway or major collector approach to work space



Typical signing for a minor side road approach to work space



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
FLAGGER OR PILOT CAR

TE730

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.

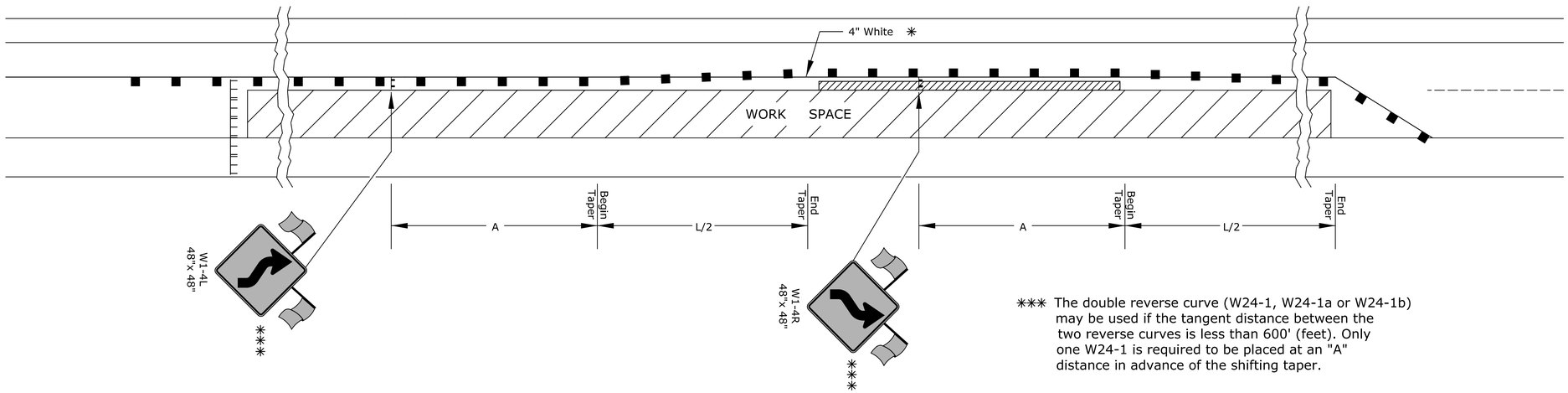
Plotted : 25-FEB-2020 13:48

Drawn By : Road
File : te730.dgn

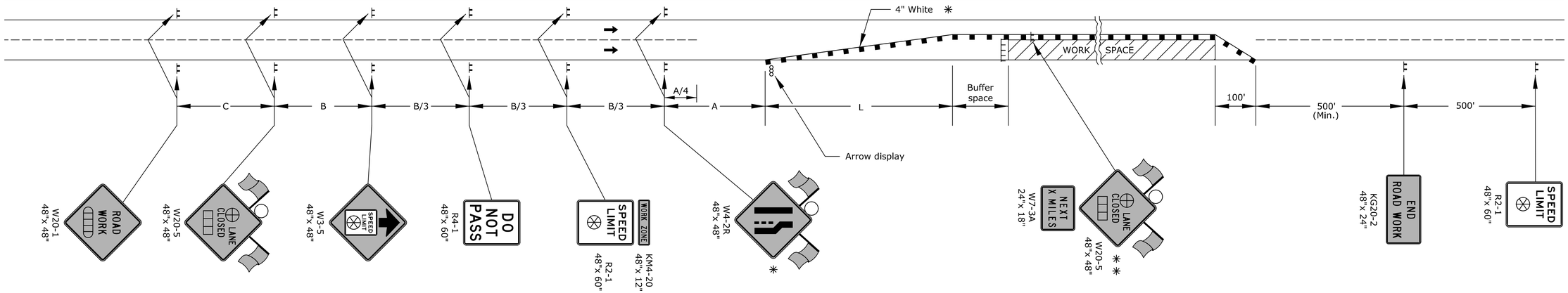
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	182	262

SHIFTING TAPER DETAIL

Add signs and devices as shown for work inside a closed lane that extends near to (or into) the open traffic lane.



✳✳✳ The double reverse curve (W24-1, W24-1a or W24-1b) may be used if the tangent distance between the two reverse curves is less than 600' (feet). Only one W24-1 is required to be placed at an "A" distance in advance of the shifting taper.



- Type 3 barricades
- X Length to the nearest whole mile
- ■ Channelizing device
- Ahead, 1500 ft, or 1 mile
- Ahead, 1000 ft, 1500 ft, or ½ mile
- ⊕ Right or left
- ⊗ Speed to be determined by the Engineer
- ○ Type "A" low intensity warning light

✳ For left lane closures use W4-2L and yellow edge line along channelizing devices.

✳✳ The W20-5 (⊕ Lane Closed) and W7-3A (Next X Miles) signs should be placed at 2 mile increments on a project of 4 miles or longer.

Left-side signs shall be omitted for a four-lane undivided highway.

One flagger should be stationed within each multi-lane roadway activity area where work is in a closed lane adjacent to traffic and not separated by a concrete safety barrier system.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
LANE CLOSURE ON MULTILANE HWY

TE744

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.

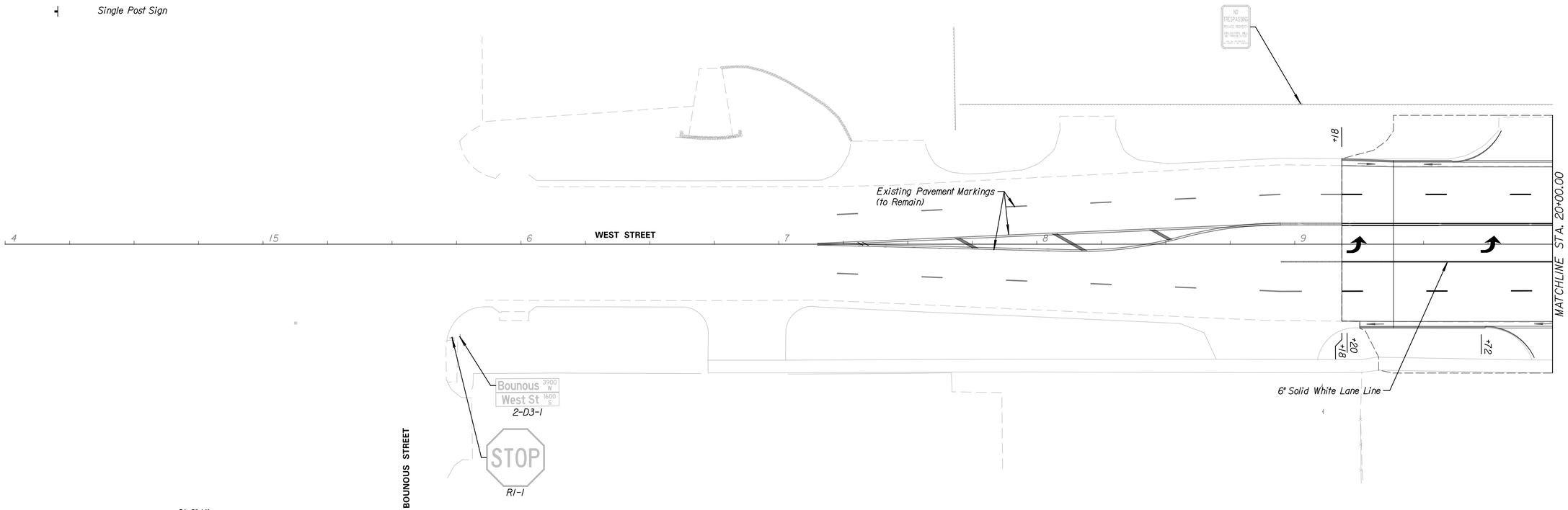
Plotted : 25-FEB-2020 13:49
Drawn By : Road
File : te744.dgn

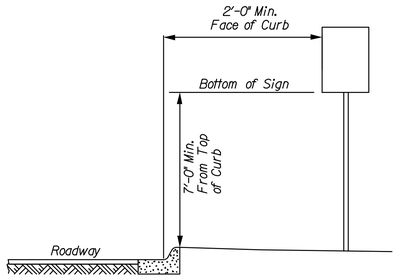
LEGEND

- SPEED LIMIT 40 — *Proposed Sign*
- SPEED LIMIT 40 — *Existing Sign to Remain*
- SPEED LIMIT 40 — *Existing Sign to be Removed*
- *Single Post Sign*

Note:
All pavement markings shall be epoxy. Pavement markings shall be installed per manufacture's recommendations. 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 installation of epoxy markings, the Contractor shall install and maintain temporary markings until such time that epoxy markings may be properly install. Except for the material requirement, temporary pavement markings shall be placed equivalent, in every manner (i.e. dimension, frequency, spacing, etc.), to the permanent marking layout. The cost for temporary pavement markings will not be paid for directly, but shall be considered SUBSIDIARY to the bid item "Pavement Marking".

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





Sign Placement on Roadway Shoulder

URBAN

1. Ground-mounted signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the top edge of the curb.

2. Permanent sign supports should not be located on sidewalks or areas designated for pedestrian or bicycle traffic.

3. The height from bottom 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. Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.

ADJUSTMENTS

Signs may be moved laterally or longitudinally if it will improve the visibility of the sign or other signs and if it will protect the sign more.

**If the edge of a sign placed adjacent to the 10' sidewalk is at least 2'-0" from the edge of the sidewalk then the bottom of the sign may be placed 7'-0" higher than the edge of the sidewalk. If the edge of a sign placed adjacent to the 10' sidewalk is less than 2'-0" from the edge of the sidewalk then the bottom of the sign must be a minimum of 8'-6" higher than the edge of the sidewalk.*

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
PAVEMENT MARKING AND SIGNING
STA. 19+18.29 TO STA. 20+00.00

SHEET NO.
183
SHEET 183 OF 262

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

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

For Harry Street Pavement Marking and Signing Plans, See Sheets 190-191

MATCHLINE STA. 20+00.00

MATCHLINE STA. 26+00.00

WEST STREET

HARRY STREET

KANSAS GAS SERVICE

BLACK HILLS

AT&T DUCT BANK

AT&T TELEPHONE

24" Solid White Stop Line

24" Type II Crosswalk

6" Solid White Lane Line

6" Broken White Lane Line

4" Solid Yellow Line

4" Broken Yellow Line

4" Solid Yellow Double Line

R8-3

R2-1 SPEED LIMIT 40

Remove & Reset from Sta. 20+64 to Sta. 20+68

Remove & Reset from Sta. 23+37 to Sta. 23+35

20+68

23+35

PI +55.95

11.5' 11.5' 14.0' 11.5' 11.5'

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

PAVEMENT MARKING AND SIGNING STA. 20+00.00 TO STA. 26+00.00

SHEET NO.
184
SHEET 184 OF 262

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

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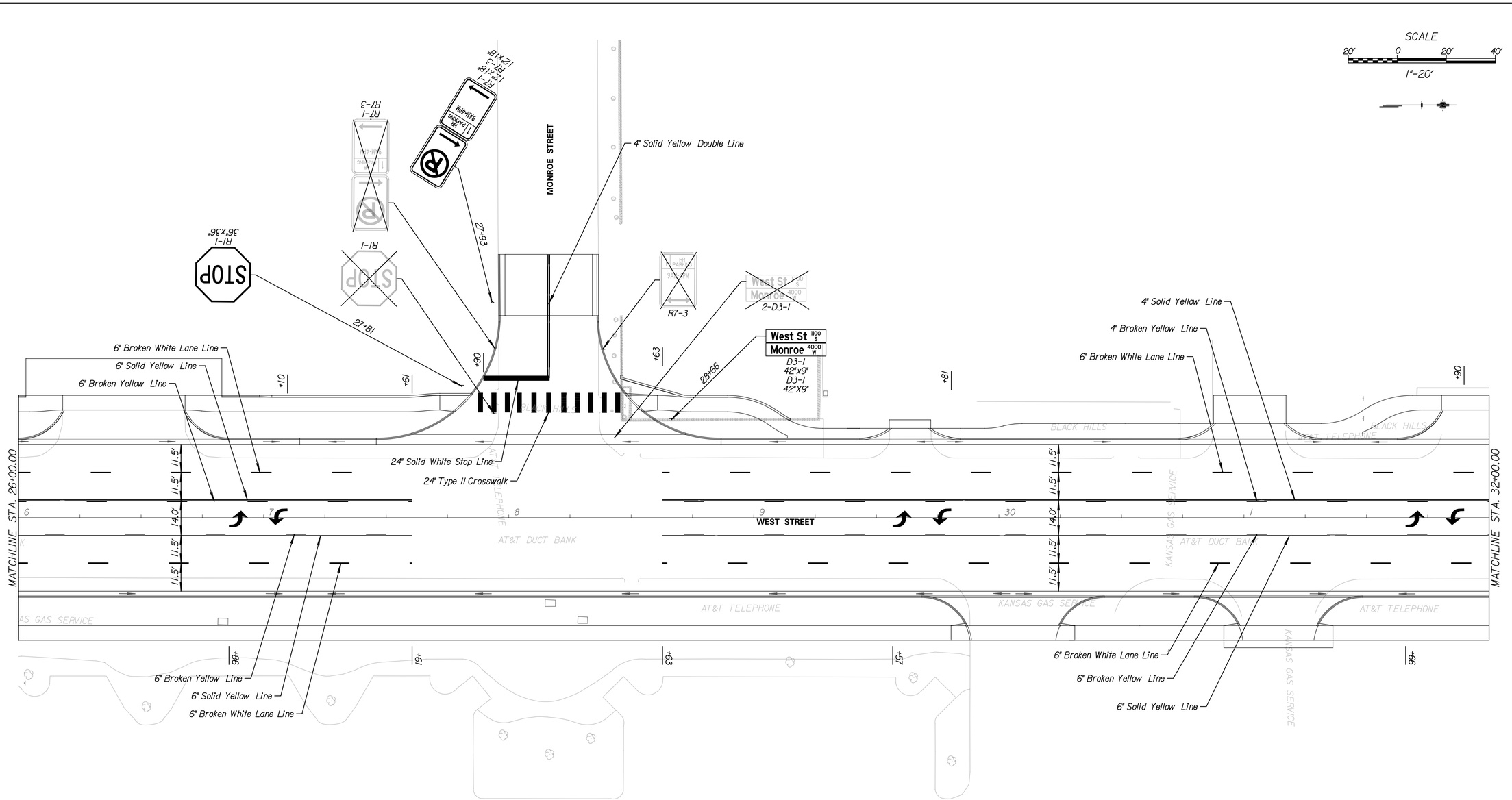

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

PAVEMENT MARKING AND SIGNING STA. 26+00.00 TO STA. 32+00.00

SHEET NO.
185

SHEET 185 OF 262

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

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

4" Solid Yellow Double Line
R3-7R 36"x36"
RIGHT LANE MUST TURN RIGHT
34+50
ONLY
6" Solid White Lane Line
4" Solid Yellow Double Line
24" Solid White Stop Line
24" Type II Crosswalk
+47
6" Broken White Lane Line
SPEED LIMIT 40 R2-1
4" Solid Yellow Double Line
33+56
+73
+23
+31
+39
+45
+39
+89
4" Solid Yellow Line
4" Broken Yellow Line
6" Solid White Lane Line
Salvage to Owner
BLACK HILLS
AT&T TELEPHONE
MATCHLINE STA. 32+00.00
11.5'
11.5'
14.0'
11.5'
11.5'
2
3
4
PI 76.85
24" Solid White Stop Line
35
6
WEST STREET
7
AT&T DUCT BANK
KANSAS GAS SERVICE
MATCHLINE STA. 38+00.00
24" Type II Crosswalk
36+62
+73
+23
+43
+91
+23
+31
+39
+45
6" Broken White Lane Line
6" Solid White Lane Line
Walker Ave
West St 1100
2-D3-1
WALKER STREET
+04
4" Solid Yellow Double Line
24" Solid White Stop Line
6" Broken White Lane Line
4" Solid Yellow Double Line
4" Broken Yellow Line
4" Solid Yellow Line
SPEED LIMIT 40 R2-1 30"x36"

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	1"=20'
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

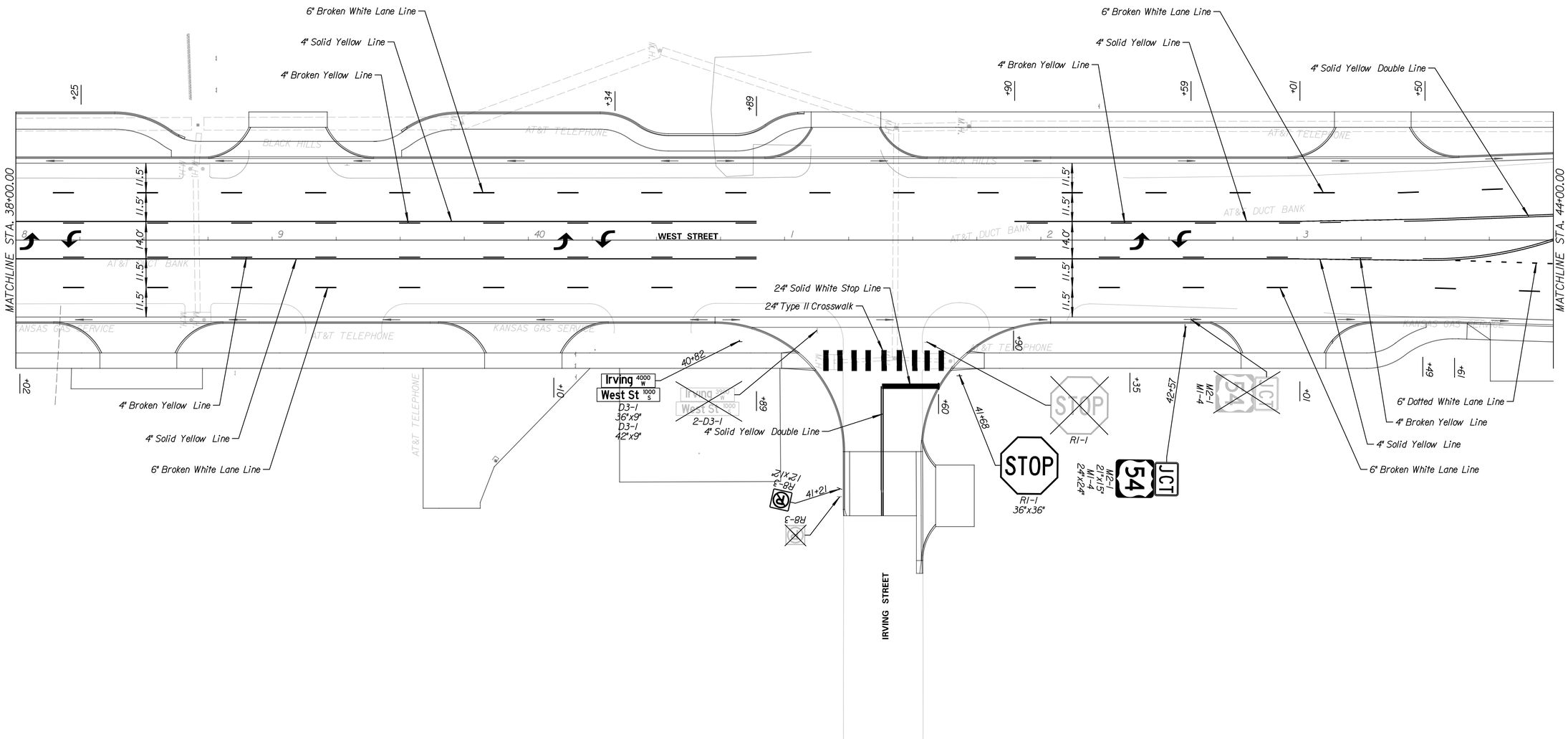
SHEET TITLE:

PAVEMENT MARKING AND SIGNING
STA. 32+00.00 TO
STA. 38+00.00

SHEET NO.
186
SHEET 186 OF 262

mhoerner
2/25/2020 - 1:48:23 PM - c:\transystems\tcw_local\transyscorp-pw1\release\dt0519510\C-PMK-M01-104.dgn

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

PAVEMENT MARKING AND SIGNING STA. 38+00.00 TO STA. 44+00.00

SHEET NO.
187
SHEET 187 OF 262

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

mhopmer
2/25/2020 - 1:48:29 PM - c:\transystems\pw_local\transyscorp-pw1\mhopmer\d5519510\C-PMK-M01-105.dgn

MATCHLINE STA. 44+00.00

6" Solid White Lane Line
4" Solid Yellow Double Line
Existing Pavement Markings (To Remain)
IRVING STREET
SPEED LIMIT 40 R2-1 30"x36"
STOP R1-1 36"x36"
Irving 4000 N / West St 900 S D3-1 36"x36" D3-1 42"x9"
R3-7R 36"x36" RIGHT LANE MUST TURN RIGHT
45+74
45+80
45+85
45+32
+55
+52
+73
+75
+14
+16
6" Broken White Lane Line
6" Solid White Lane Line
4" Solid Yellow Double Line
24" Solid White Stop Line
24" Type II Crosswalk
BLACK HILLS
AT&T DUCT BANK
AT&T TELEPHONE
KANSAS GAS SERVICE
WEST STREET
PI -98.91
45
6
7
8
9
6" Dotted White Lane Line
6" Broken White Lane Line
6" Solid White Lane Line
12" Solid White Chevron Line
Overhead Sign Structure w/ M3-4 M1-4 M6-3
WEST
45+
16+
90+
55+
76+
46+00
19+
DO NOT BLOCK INTERSECTION R10-7 24"x30"
DO NOT BLOCK INTERSECTION R10-7
McCORMICK STREET
46+85
45+86
46+83
46+87
STOP R1-1 36"x36"
West St 900 S / McCormick 3900 W D3-1 42"x9" D3-1 54"x9"
West St 900 S / McCormick 3900 W 2-D3-1
RIGHT LANE MUST TURN RIGHT R3-7 36"x36"
STOP R1-1
6" Solid White Lane Line
4" Solid Yellow Double Line
RIGHT LANE MUST TURN RIGHT R3-7 36"x36"

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

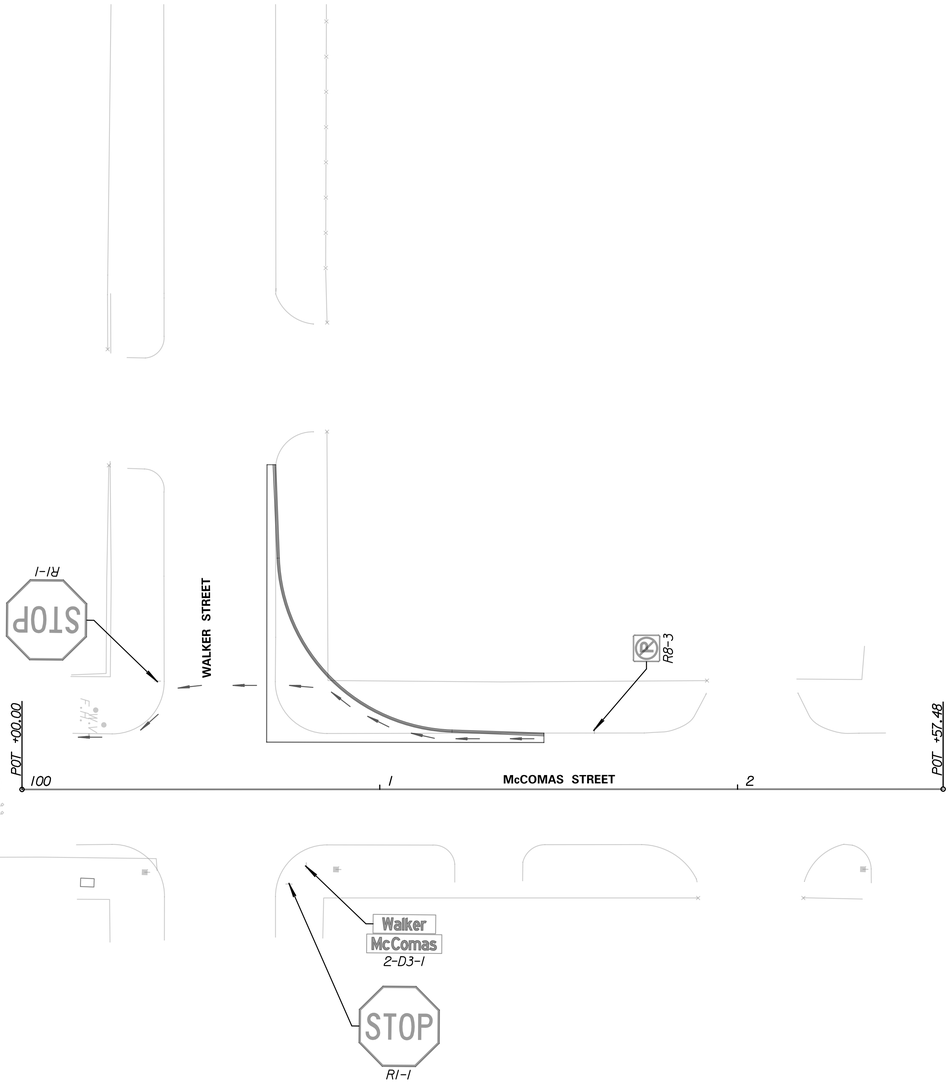
PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
PAVEMENT MARKING AND SIGNING STA. 44+00.00 TO STA. 50+00.00

SHEET NO.
188
SHEET 188 OF 262

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

mhosmer
2/25/2020 - 1:48:38 PM - c:\transystems\pw_local\transyscorp-pw1\mhosmer\d0519510\C-PMK-M01-106.dgn



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

Trans Systems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

PAVEMENT MARKING AND SIGNING
STA. 100+00.00 TO STA. 102+50.00

SHEET NO.
189
SHEET 189 OF 262

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

mhaener
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SCALE
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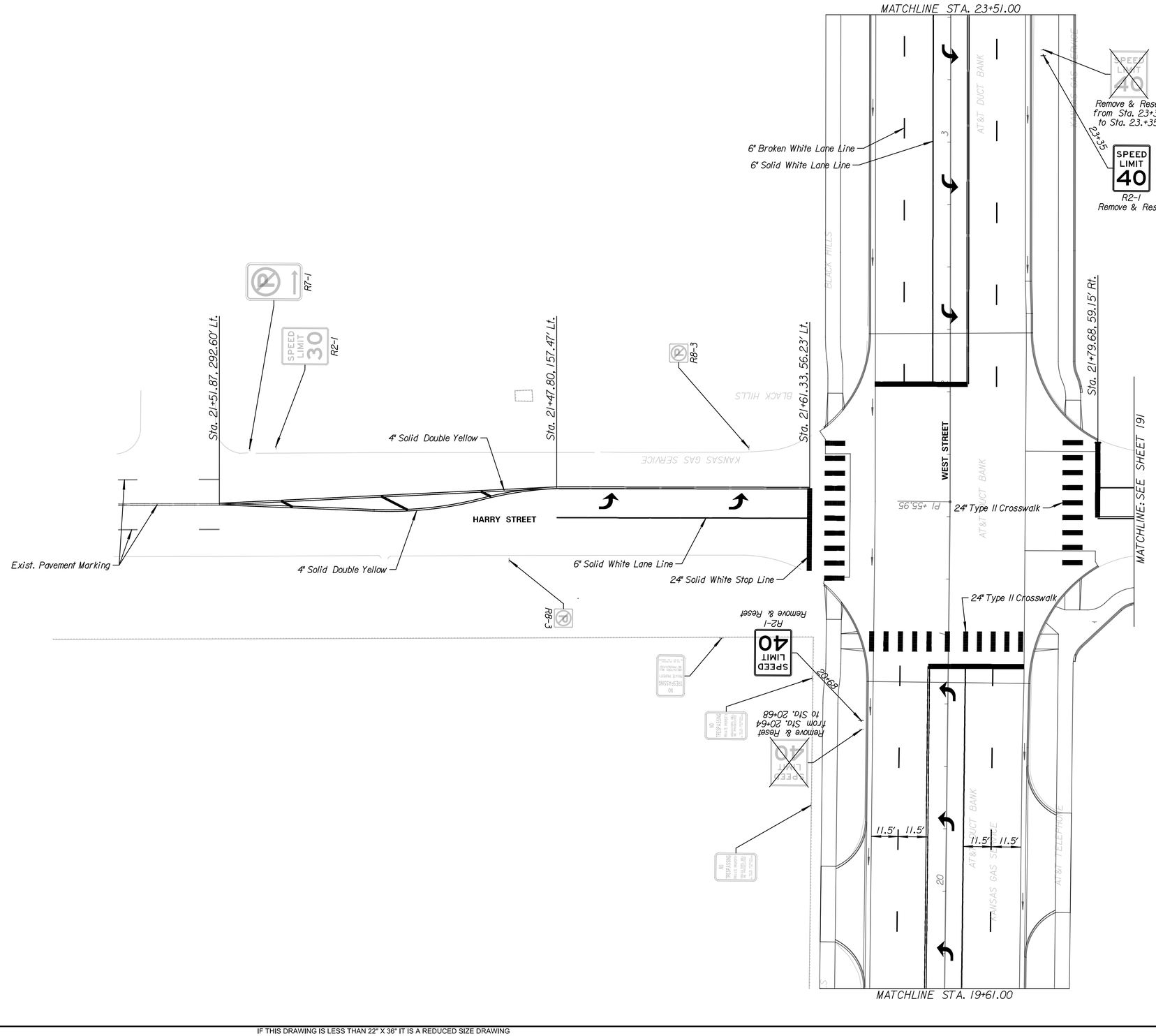
1"=20'

For West Street Pavement Marking and Signing Plans,
See Sheets 183-189



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

PAVEMENT MARKING AND SIGNING HARRY STREET

SHEET NO.
190
SHEET 190 OF 262

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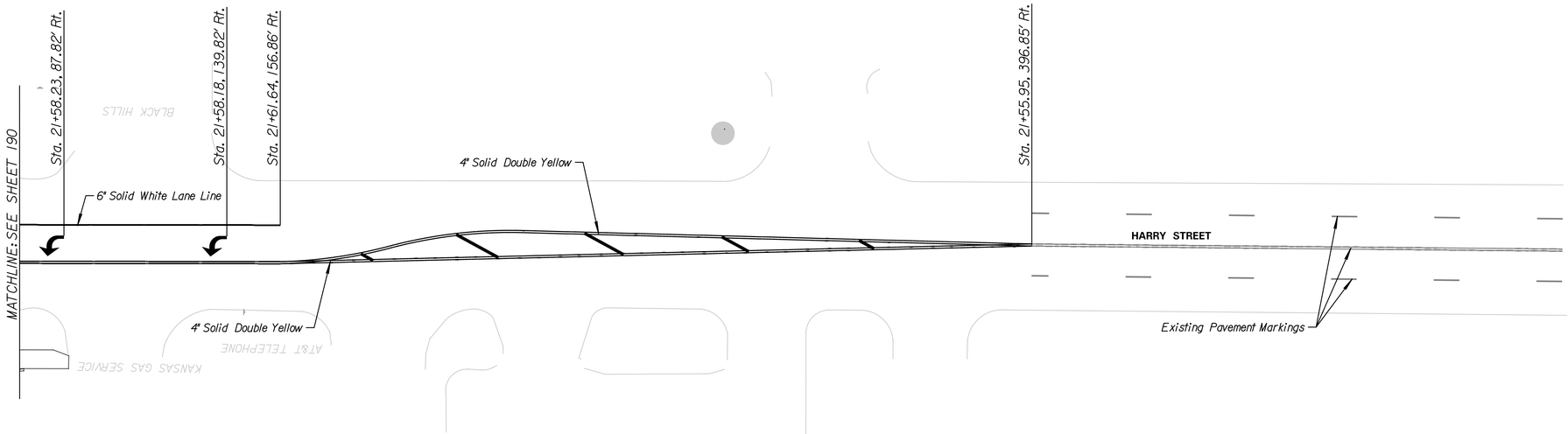
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

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



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

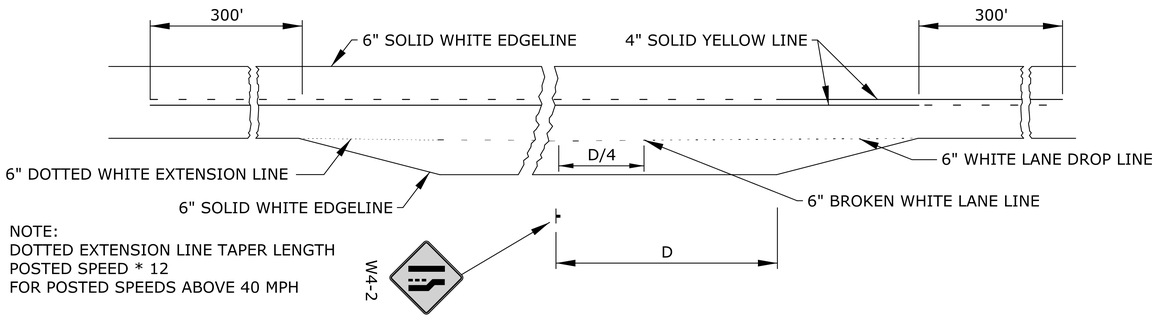
PAVEMENT MARKING
AND SIGNING
HARRY STREET

SHEET NO.
191
SHEET 191 OF 262

mhoerner
2/25/2020 - 1:48:57 PM - c:\transystems\ow_local\transystemscorp-pw1\mlnoemer\d0519510\C-PMKM01-110.dgn

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

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	192	262

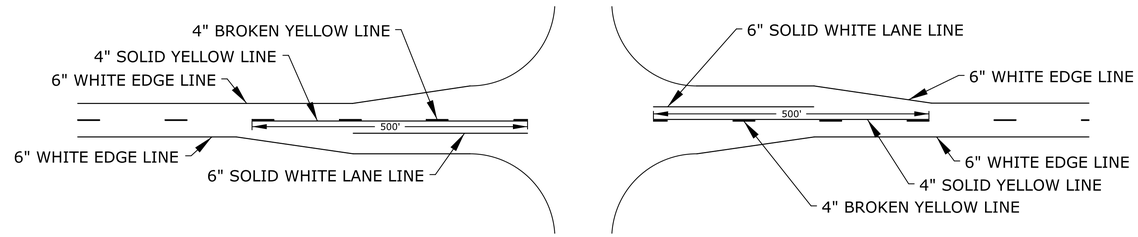


NOTE:
DOTTED EXTENSION LINE TAPER LENGTH
POSTED SPEED * 12
FOR POSTED SPEEDS ABOVE 40 MPH

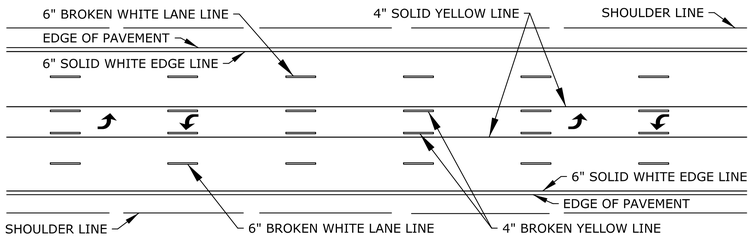
TYPICAL MARKING FOR AUXILIARY PASSING LANE

NOTE:
ALL PAVEMENT MARKINGS SHALL BE BROKEN AT CROSS ROADS.

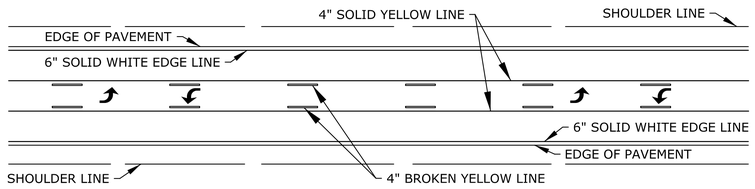
FOR HIGHWAY JUNCTIONS THE NO PASSING ZONE WILL EXTEND 1000' FROM INTERSECTION.



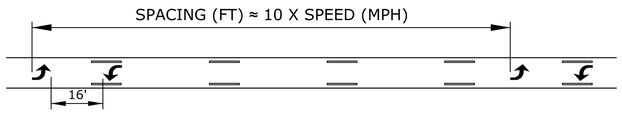
TYPICAL ROAD JUNCTION MARKINGS WITH BYPASS LANES



TWO-WAY LEFT TURN DETAIL FOR FIVE LANE ROADWAY

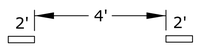


TWO-WAY LEFT TURN DETAIL FOR THREE LANE ROADWAY

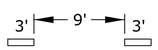


TWO-WAY LEFT TURN ARROW SPACING DETAIL

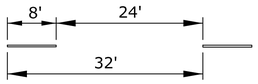
NOTE:
IF ARROWS ARE USED SPACE THE ARROWS AS SHOWN IN THE SPACING DETAIL.



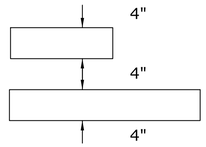
TYPICAL SPACING FOR DOTTED EXTENSION LINES, UNLESS OTHERWISE NOTED ON PLANS.



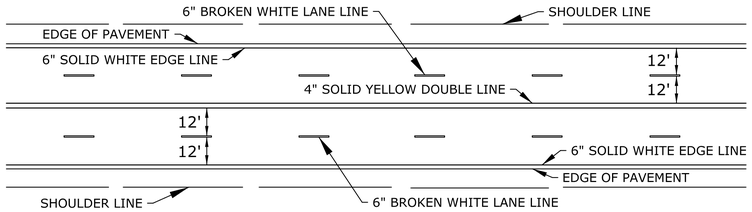
TYPICAL SPACING FOR LANE DROP. UNLESS OTHERWISE NOTED ON PLANS.



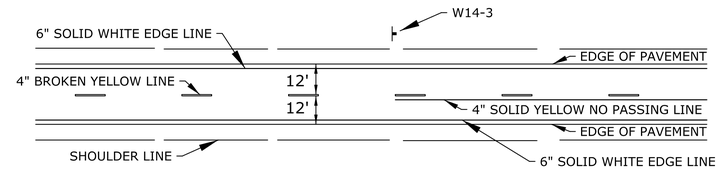
TYPICAL SPACING FOR BROKEN LINES UNLESS OTHERWISE NOTED ON PLANS



TYPICAL SPACING FOR NO PASSING LINES UNLESS OTHERWISE NOTED ON PLANS



TYPICAL MARKINGS FOR FOUR LANE ROADWAY



TYPICAL TWO LANE MARKINGS

NOTE:
LONGITUDINAL PAVEMENT MARKING LINES SHALL BE OFFSET A MINIMUM OF 2" FROM LONGITUDINAL PAVEMENT JOINTS.

NOTE:
ON NON I, US, AND K ROUTES, 4" EDGE LINES MAY BE INSTALLED.
6" EDGE LINES ARE NOT REQUIRED ON NON I, US, AND K ROUTES.

NO.	DATE	REVISIONS	BY	APP'D
3	5/25/12	Added Dotted Extension and Lane Drop Lines	B.A.H.	B.D.G.
2	9/20/05	Removed Aux. Passing Lane Dotted Ext. Line	J.F.F.	B.D.G.
1	7/26/05	New FHWA Approval Date	J.F.F.	B.D.G.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKING DETAILS FOR UNDIVIDED ROADWAYS

TE308

FHWA APPROVAL		5/25/2012	APP'D	Brian D. Gower	
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES	TRACED
DESIGN CK.	B.D.G.	DETAIL CK.	B.D.G.	QUAN. CK.	TRACE CK.

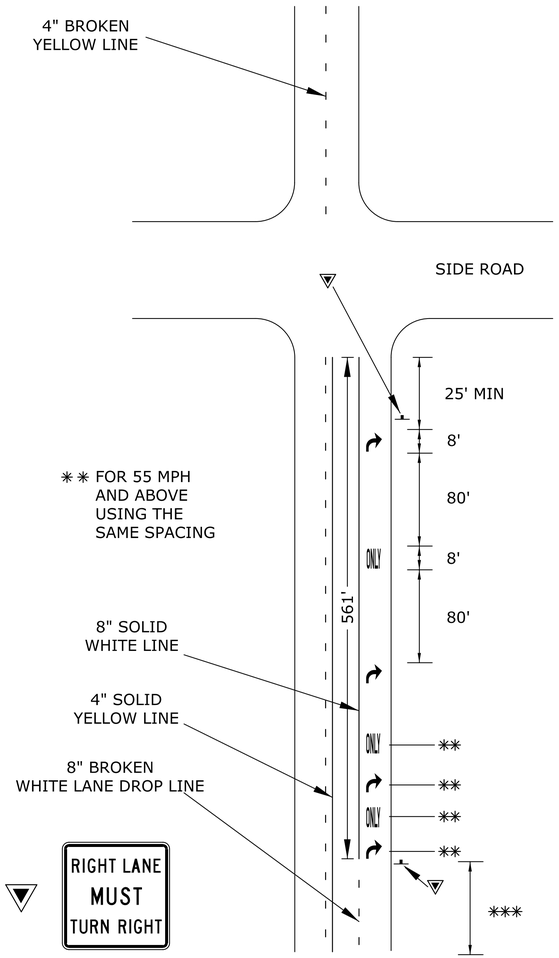
CADconform Certify This File

192

Plotted : 25-FEB-2020 13:49
Drawn By : Road
File : te308.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	193	262

TYPICAL SIGNING AND MARKING FOR RIGHT LANE MUST TURN RIGHT



✳✳ FOR 55 MPH AND ABOVE USING THE SAME SPACING

✳✳✳ THE LANE DROP MARKINGS LENGTH IS A MINIMUM OF 100' AND A MAXIMUM OF 250' PRIOR TO THE 8"SOLID WHITE LINE

RAILROAD CROSSING MARKING

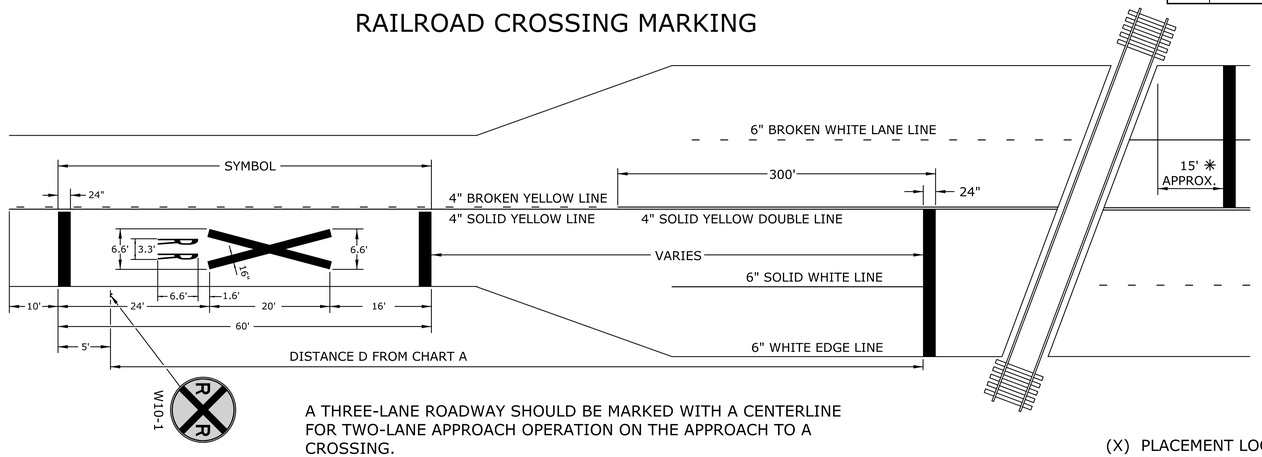


CHART "A"

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

ALL DISTANCES ARE MINIMUM.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.
ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
REFER TO STANDARD ALPHABET FOR HIGHWAY SIGNS AND MARKINGS FOR R X R SYMBOLS DETAILS.

*STOP LINE 8' FROM NEAR EDGE OF GATE OR CANTILEVER, IF PRESENT.

NOTE:
ON NON I, US, AND K ROUTES, 4" EDGE LINES MAY BE INSTALLED.
6" EDGE LINES ARE NOT REQUIRED ON NON I, US, AND K ROUTES.

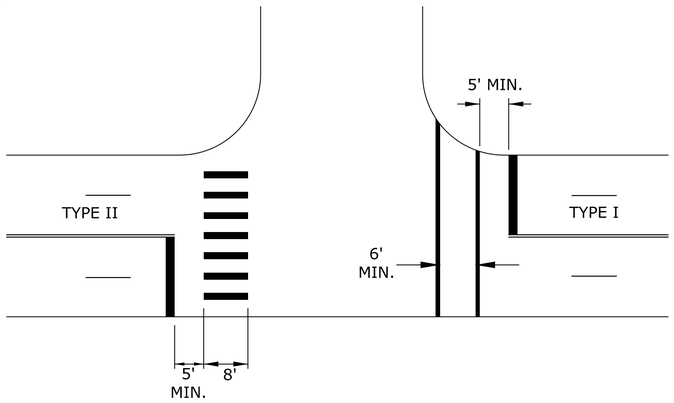
(X) PLACEMENT LOCATION IS DEPENDENT ON SITE CONDITIONS AND OTHER SIGNING TO PROVIDE ADEQUATE ADVANCE WARNING TO THE DRIVER

TYPICAL CROSSWALKS

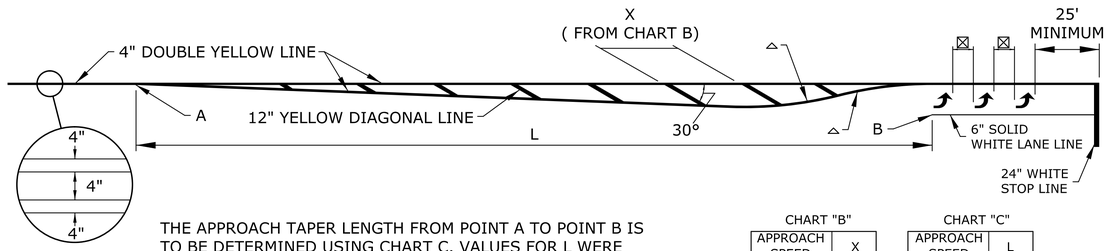
TYPE I: CROSSWALK LINES SHALL BE 12" SOLID WHITE LINES. THEY SHALL BE SPACED A MINIMUM OF 6' APART FROM INSIDE EDGE TO INSIDE EDGE.

TYPE II: THESE LINES SHOULD BE SOLID WHITE 24" WIDE PLACED PARALLEL TO THE DIRECTION OF TRAFFIC FLOW. THE LINE PLACEMENT IS DETERMINED BY LANE LINE,CENTER LINE, AND WHEEL PATH IN SUCH A MANNER AS TO MINIMIZE TRAFFIC WEAR. THE CROSSWALK WIDTH SHOULD BE NOT LESS THAN 8'. THE TRANSVERSE CROSSWALK LINES MAY BE ADDED.

WHEN REQUIRED, STOP LINES SHALL BE INSTALLED A MINIMUM OF 5' FROM CROSSWALKS.



TYPICAL APPROACH TAPER DETAIL



THE APPROACH TAPER LENGTH FROM POINT A TO POINT B IS TO BE DETERMINED USING CHART C. VALUES FOR L WERE CALCULATED USING THE EQUATIONS BELOW AND INCREASED TO THE NEXT HIGHER 5 MPH INCREMENT.

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

IF ARROWS ARE USED AND UNLESS OTHERWISE SPECIFIED THE SPACE BETWEEN LINES SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS, UNDER ANY CONDITIONS.

FOR SPEEDS LESS THAN OR EQUAL TO 40 MPH, R=150'.
FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH, R=300'.

CHART "B"

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

CHART "C"

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

NO.	DATE	REVISIONS	BY	APP'D
3	5/25/12	Updated Chart B and Lane Drop Lines	B.A.H.	B.D.G.
2	10/20/06	RR Xing Symbol Changed from 18' to 16'	T.L.H.	B.D.G.
1	9/20/05	Added 4" Solid Yellow Double Line to RRxing	J.F.F.	B.D.G.

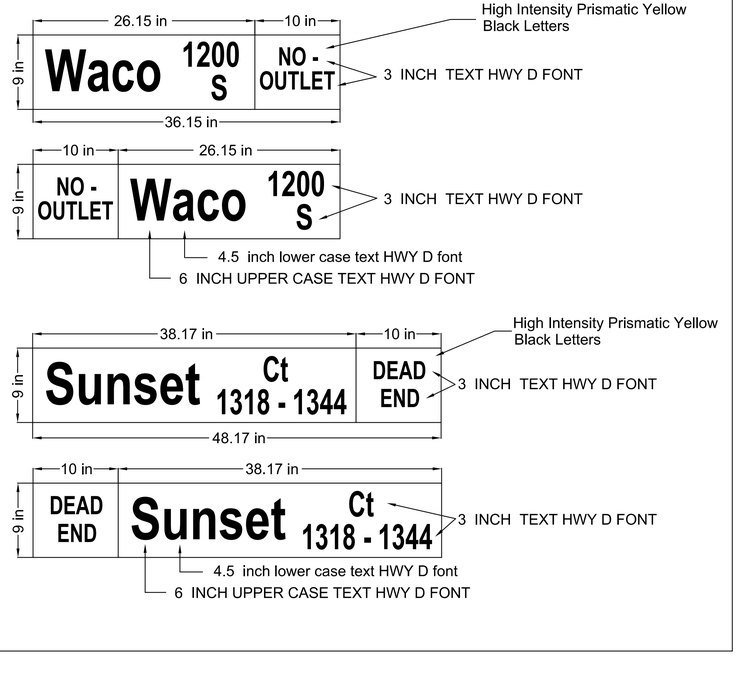
KANSAS DEPARTMENT OF TRANSPORTATION

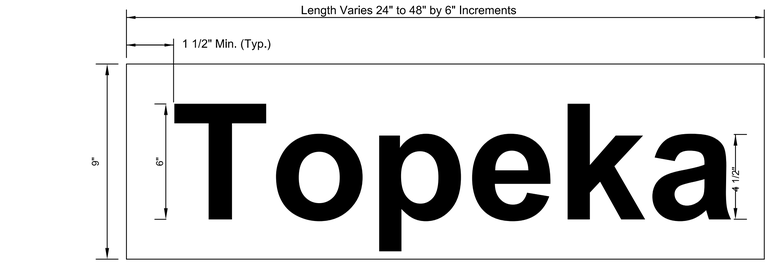
TYPICAL MISCELLANEOUS PAVEMENT MARKING DETAIL SHEET

TE309

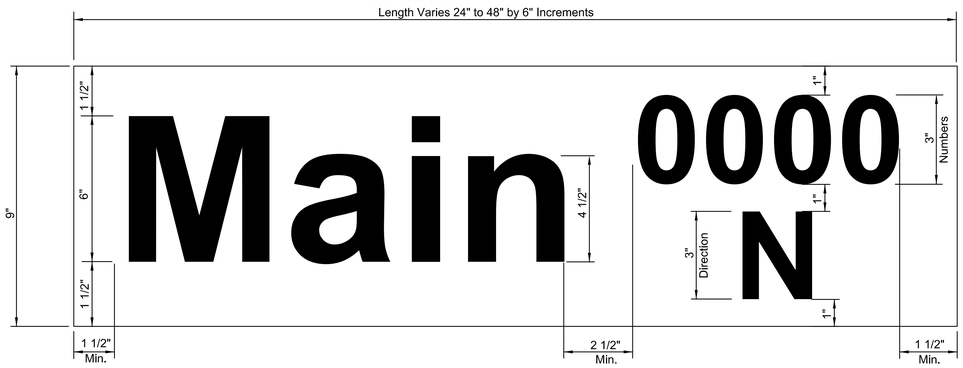
FHWA APPROVAL		7/26/2005	APP'D	Brian D. Gower	
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES	TRACED
DESIGN CK.	B.D.G.	DETAIL CK.	B.D.G.	QUAN. CK.	TRACE CK.

Plotted : 25-FEB-2020 13:50
Drawn By : Road
File : te309.dgn

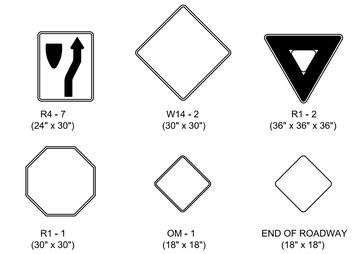




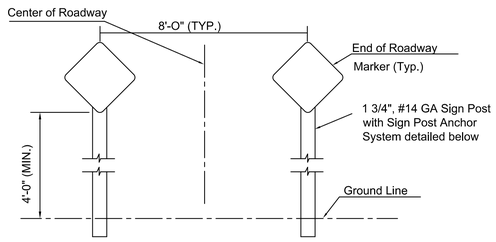
DETAIL A
9" STANDARD



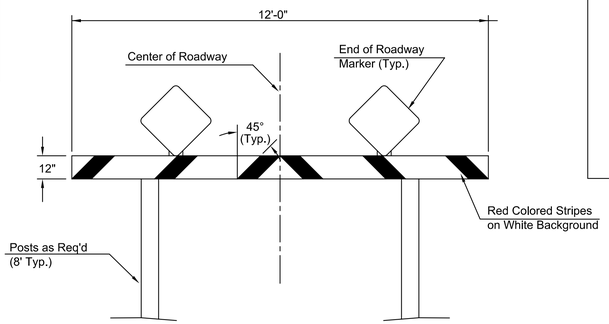
DETAIL B
9" METRO



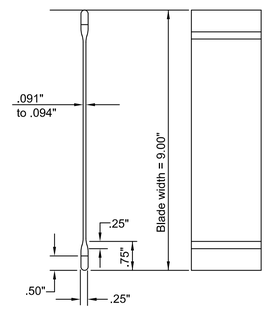
* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.



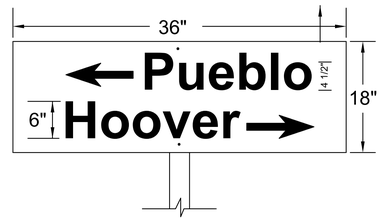
TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION



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

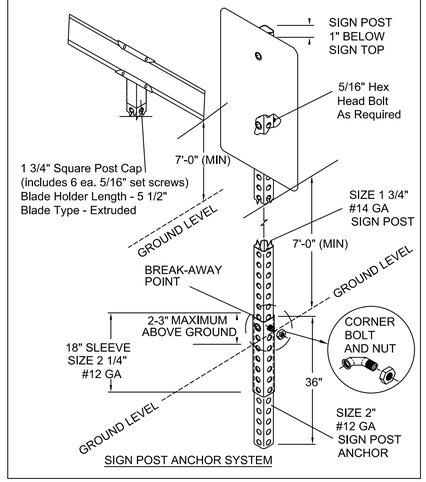


STREET NAME SIGN
BLADE DETAILS



FLAT PLATE STREET NAME SIGN

PERFORMED TUBE SIGN POST INSTALLATION



SIGN POST ANCHOR SYSTEM

SIGN ASSEMBLY TABLE

STATION	OFFSET	SIGN	QUANTITY*
27+81	-	R1-1	1
27+93	-	R7-1	1
27+93	-	R7-3	1
28+39	-	R7-3	1
33+56	-	R2-1	1
34+50	-	R3-7R	2
36+62	-	R2-1	1
41+21	-	R8-3	1
41+68	-	R1-1	1
42+57	-	M2-1	1
45+57	-	M1-4	1
45+32	-	R2-1	1
45+74	-	R1-1	1
45+80	-	R3-7R	1
46+00	-	R10-7	1
46+83	-	R3-7R	1
46+85	-	R1-1	1
46+87	-	R3-7R	1
TOTAL			

STREET NAME	NO. BLADES REQ'D	
	9" STD.	9" METRO
WEST: 1100 S		1
MONROE: 4000 W		1
WEST: 1000 S		1
IRVING: 4000 W		1
WEST: 900 S		2
MCCORMICK: 3900 W		1
IRVING: 4000 W		1

NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 1990" 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 1626 OF THE STANDARD SPECIFICATIONS.

6. SIGN BLADES FOR STREET NAME SIGNS: EXTRUDED ALUMINUM BLADES SHALL BE ALUMINUM ALLOY CONFORMING TO 6063-T6 OR 5052-H38 (ASTM SPECIFICATION B221, LATEST ISSUE). BLADES SHALL HAVE AN ALODINE OR PHOSPHATE ETCHED FINISH. BLADES SHALL HAVE SQUARE CORNERS AND NO HOLES.

MINIMUM BLADE LENGTH SHALL BE 24". MAXIMUM BLADE LENGTH SHALL BE 48". LENGTH VARIES BY INCREMENTS OF 6".

BLADES BEARING THE STREET NAMES SHALL BE FIRMLY ATTACHED TO THE MOUNTING BRACKETS USING ALLEN-TYPE CONICAL SET SCREWS. THE BLADES SHALL BE ORIENTED PARALLEL TO THE STREET.

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

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

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

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

11. DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 9" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGOUND WITH SILVER-WHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY. BOTH SERIES "C". FACES TO TRIM TO A 8 1/2". (SEE DETAIL A.)

THE REFLECTIVE SHEETING FOR THE 9" METRO SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVERWHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". THE CARDINAL DIRECTION CENTERED DIRECTLY BELOW THE BLOCK NUMBER SHALL BE AN UPPER CASE, 3" SERIES "C" LETTER. FACES TO TRIM TO A 8 1/2" WIDTH. (SEE DETAIL B.)

FOR CUL-DE-SAC STREETS, A 9" METRO SIZE BLADE SHALL BE USED WITH THE BLOCK NUMBERS DISPLAYED BENEATH THE STREET NAME.

IF BLOCK NUMBERS ARE NOT SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEER AT 268-4501 PRIOR TO MANUFACTURING THE SIGN.

SHOP DRAWINGS OF LAYOUT FOR SNS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA FOR APPROVAL PRIOR TO FABRICATION. THE FINISHED SIGNS AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM RAGGED EDGES, CRACKS SCALES OR BLISTERS AND SHALL BE CLEAN-CUT. SIGNS SHALL BE PACKED IN SUCH MANNER AS TO PREVENT DAMAGE OR DEFACEMENT DURING SHIPMENT OR STORAGE.

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

REVISED NOVEMBER 2014

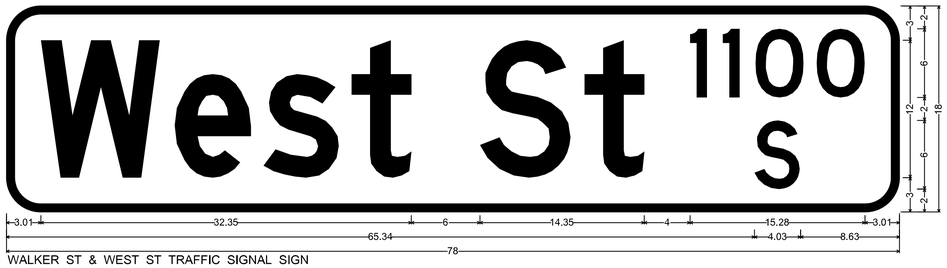
CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SIGN DETAILS

TRAFFIC ENGINEER
MIKE ARMOUR, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

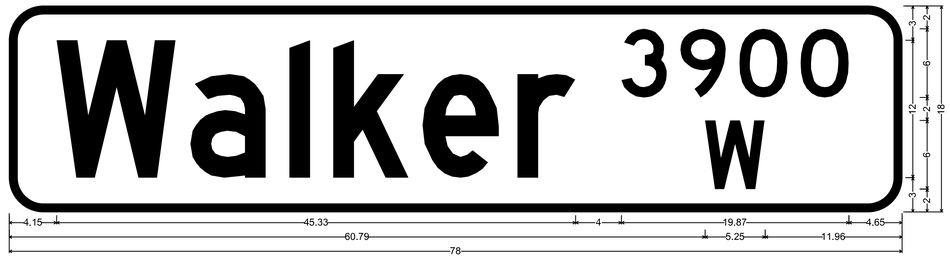


WALKER ST & WEST ST TRAFFIC SIGNAL SIGN

3.00" Radius, 0.75" Border, White on Green;
[West] D 50% spacing; [St] D 50% spacing; [1100] D; [S] D;
Table of widths and spaces.

	W		e		s		t		S		t		1		1		0		0	
3.01	10.50	1.18	6.69	1.07	6.69	1.00	5.22	6.00	8.06	1.07	5.22	4.00	1.45	1.41	1.45	1.41	4.22	1.12	4.22	3.01

	S	
65.34	4.03	8.63

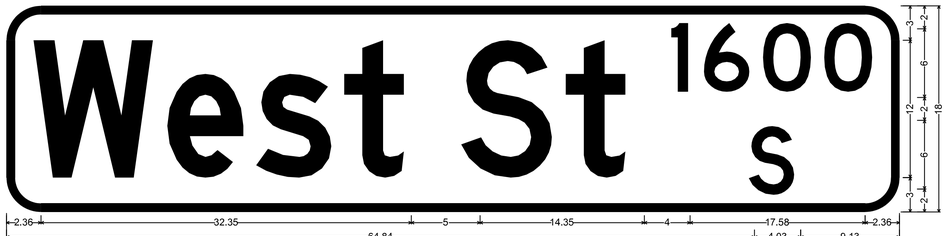


WALKER ST & WEST ST TRAFFIC SIGNAL SIGN

3.00" Radius, 0.75" Border, White on Green;
[Walker] D 50% spacing; [3900] D; [W] D;
Table of widths and spaces.

	W		a		r		l		k		e		r		3		9		0		0	
4.15	10.50	1.18	6.69	1.96	1.87	1.96	6.69	1.10	6.69	1.61	5.08	4.00	4.03	1.13	4.03	1.12	4.22	1.13	4.21	4.65

	W	
60.79	5.25	11.96

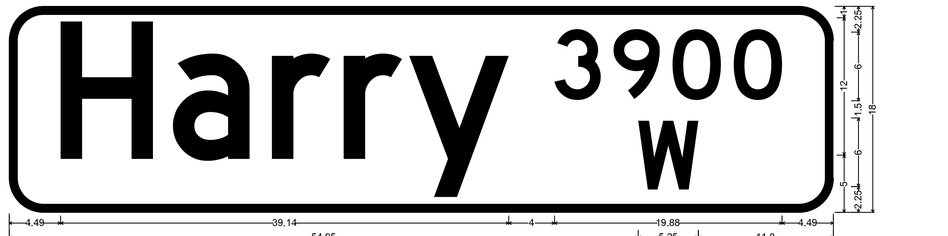


HARRY ST & WEST ST TRAFFIC SIGNAL SIGN

3.00" Radius, 0.75" Border, White on Green;
[West] D 50% spacing; [St] D 50% spacing; [1600] D; [S] D;
Table of widths and spaces.

	W		e		s		t		S		t		1		6		0		0	
2.36	10.50	1.18	6.69	1.07	6.69	1.00	5.22	5.00	8.06	1.07	5.22	4.00	1.46	1.40	4.03	1.13	4.22	1.12	4.22	2.36

	S	
64.84	4.03	9.13



HARRY ST & WEST ST TRAFFIC SIGNAL SIGN

3.00" Radius, 0.75" Border, White on Green;
[Harry] D 50% spacing; [3900] D; [W] D;
Table of widths and spaces.

	H		a		r		r		y		3		9		0		0	
4.49	8.06	1.75	6.69	1.96	5.08	1.19	5.08	0.64	8.69	4.00	4.03	1.13	4.03	1.13	4.21	1.13	4.22	4.49

	W	
54.95	5.25	11.80

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: NTS
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

SIGN FACE DETAILS

SHEET NO.
195

SHEET 195 OF 262

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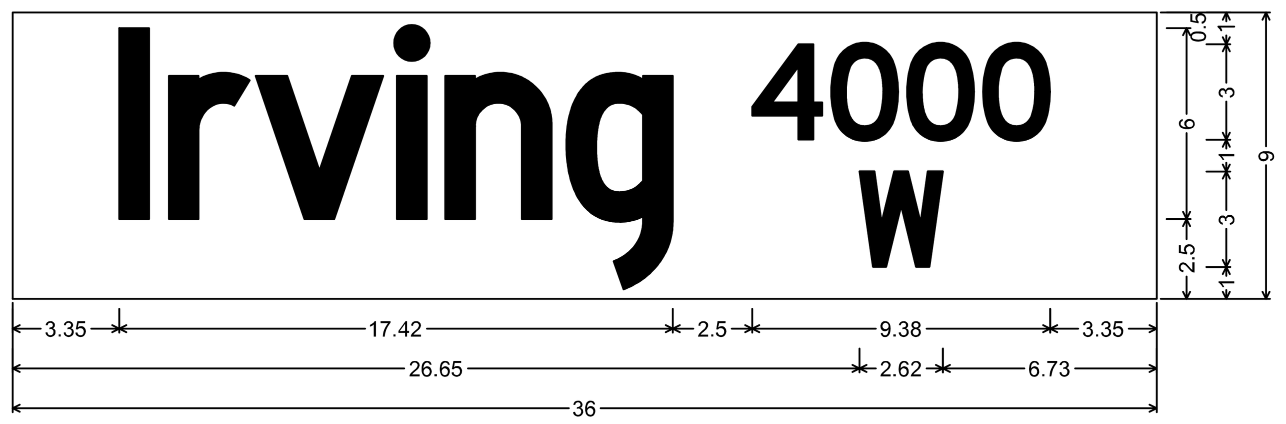
2/25/2020 - 1:56:11 PM - c:\transystems\ow_local\transyscorp-pw1\mlnoemer\d0519510\C-SIGNAM01-501.dgn

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



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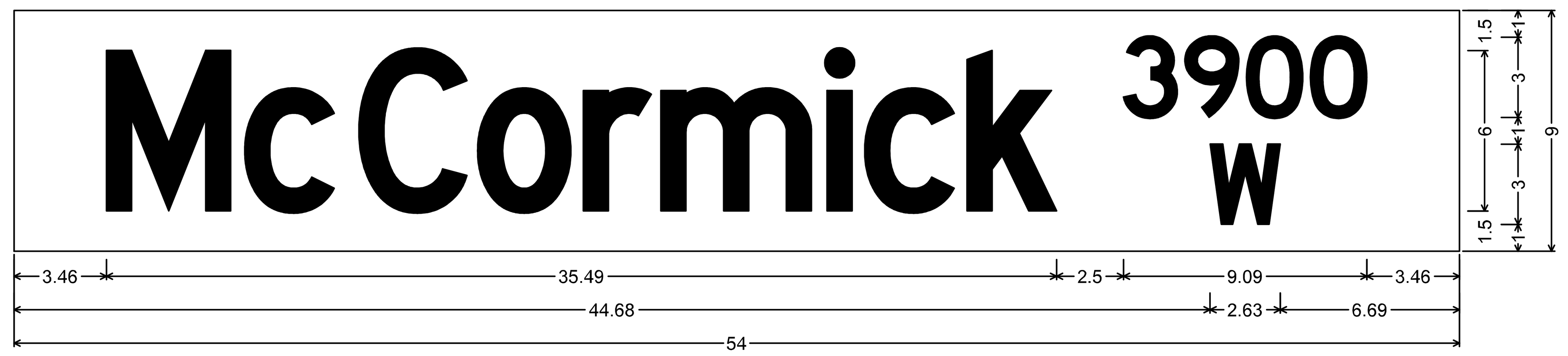
[Irving] D 30% spacing; [4000] D 50% spacing; [W] D 50% spacing;
Table of widths and spaces.

	I		r		v		i		n		g		4		0		0		0	
3.35	0.94	0.62	2.54	0.20	4.01	0.43	0.94	0.58	3.35	0.47	3.34	2.50	2.20	0.29	2.11	0.28	2.11	0.28	2.11	3.35

	W	
26.65	2.62	6.73



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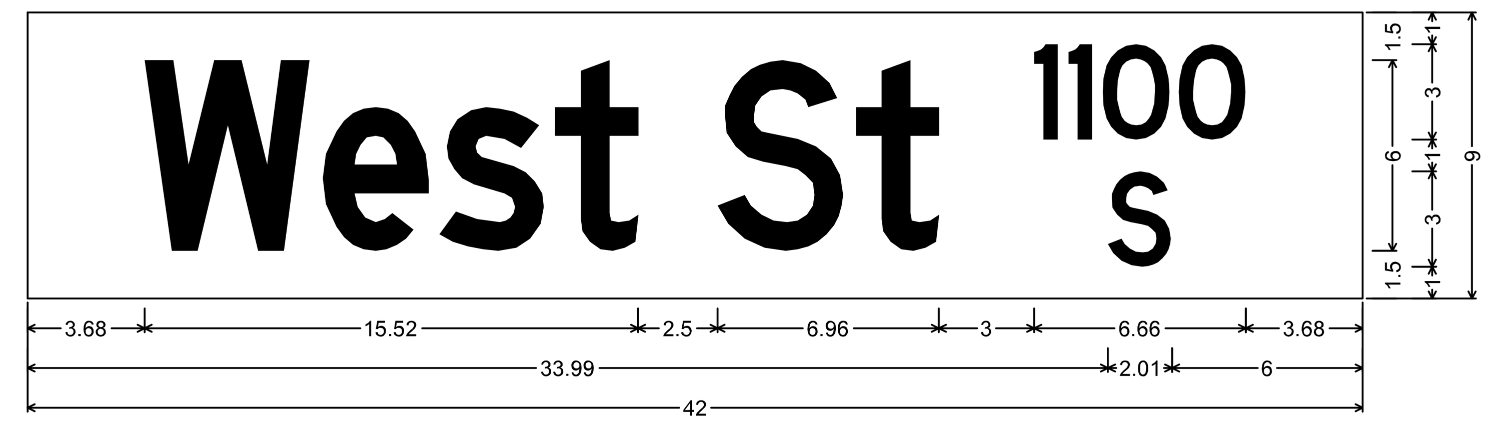
[McCormick] D 30% spacing; [3900] D 50% spacing; [W] D 50% spacing;
Table of widths and spaces.

	M		c		C		o		r		m		i		c		k		3		9		0		0	
3.46	4.64	0.52	3.35	0.91	4.04	0.40	3.48	0.47	2.54	0.36	5.62	0.58	0.94	0.47	3.34	0.48	3.35	2.50	2.01	0.29	2.01	0.28	2.11	0.28	2.11	3.46

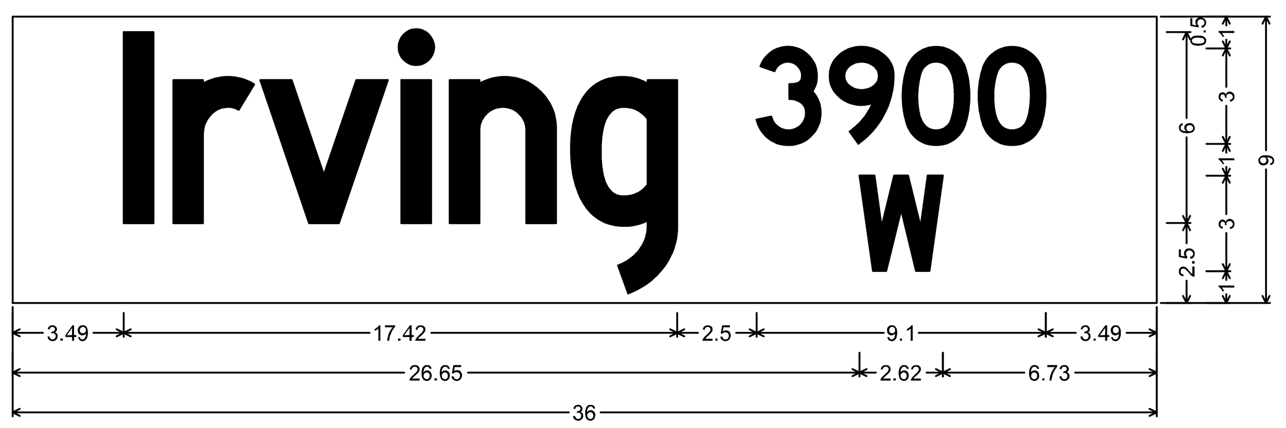
	W	
44.68	2.63	6.69



No border, White on Green;
[West] D 30% spacing; [St] D 30% spacing; [1100] D 50% spacing; [S] D 50% spacing;
Table of widths and spaces.

	W		e		s		t		S		t		1		1		0		0	
3.68	5.25	0.35	3.35	0.32	3.34	0.30	2.61	2.50	4.03	0.33	2.60	3.00	0.73	0.35	0.73	0.35	2.11	0.28	2.11	3.68

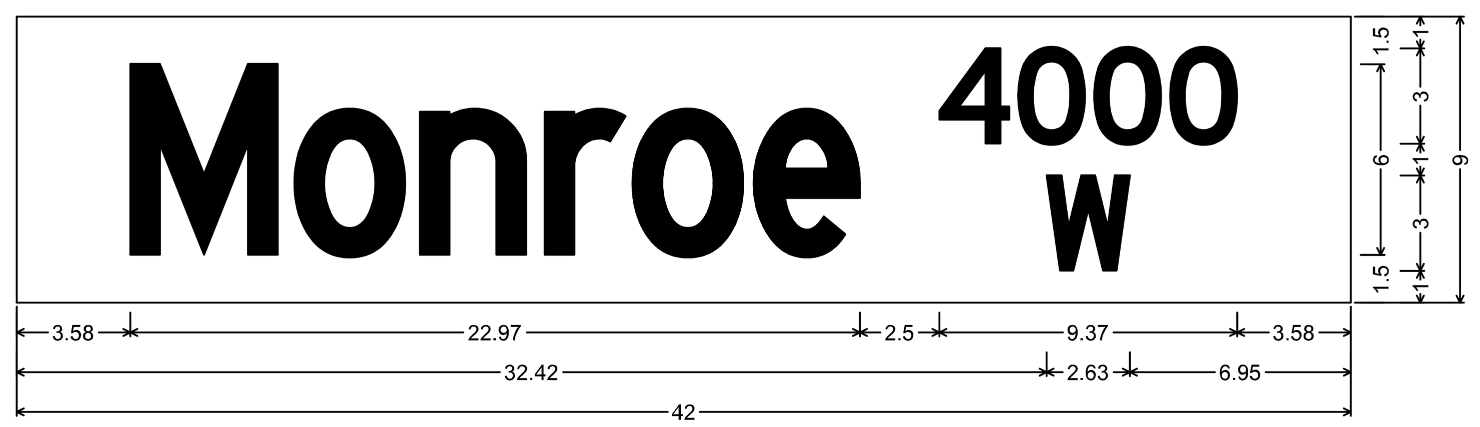
	S	
33.99	2.01	6.00



No border, White on Green;
[Irving] D 30% spacing; [3900] D 50% spacing; [W] D 50% spacing;
Table of widths and spaces.

	I		r		v		i		n		g		3		9		0		0	
3.49	0.94	0.62	2.54	0.20	4.01	0.43	0.94	0.58	3.35	0.47	3.34	2.50	2.02	0.28	2.01	0.29	2.11	0.28	2.11	3.49

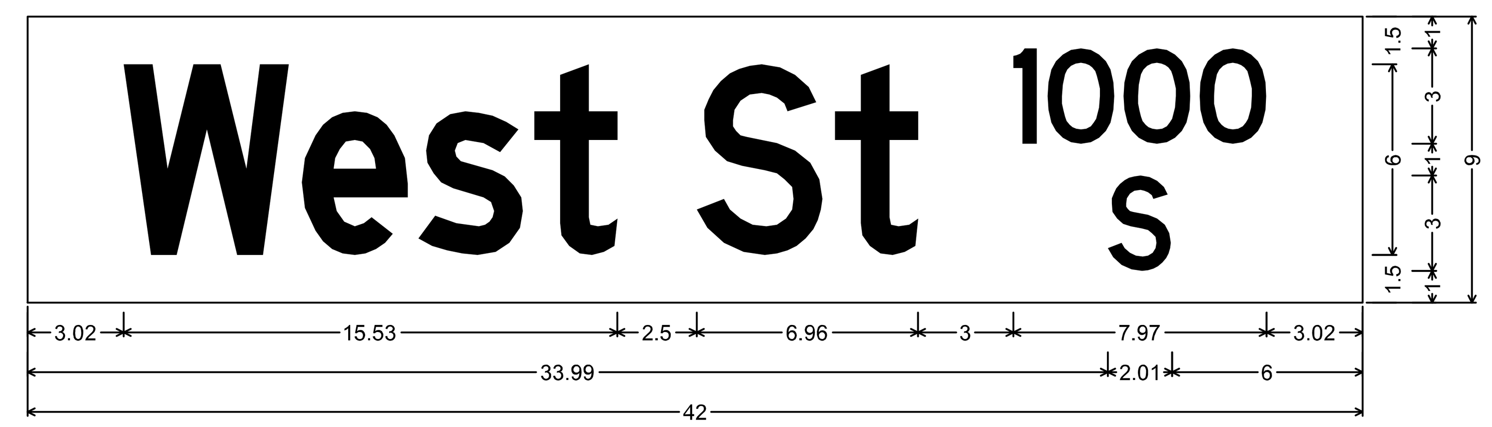
	W	
26.65	2.62	6.73



No border, White on Green;
[Monroe] D 30% spacing; [4000] D 50% spacing; [W] D 50% spacing;
Table of widths and spaces.

	M		o		n		r		o		e		4		0		0		0	
3.58	4.64	0.52	3.48	0.47	3.35	0.58	2.55	0.22	3.48	0.33	3.35	2.50	2.20	0.28	2.11	0.28	2.11	0.28	2.11	3.58

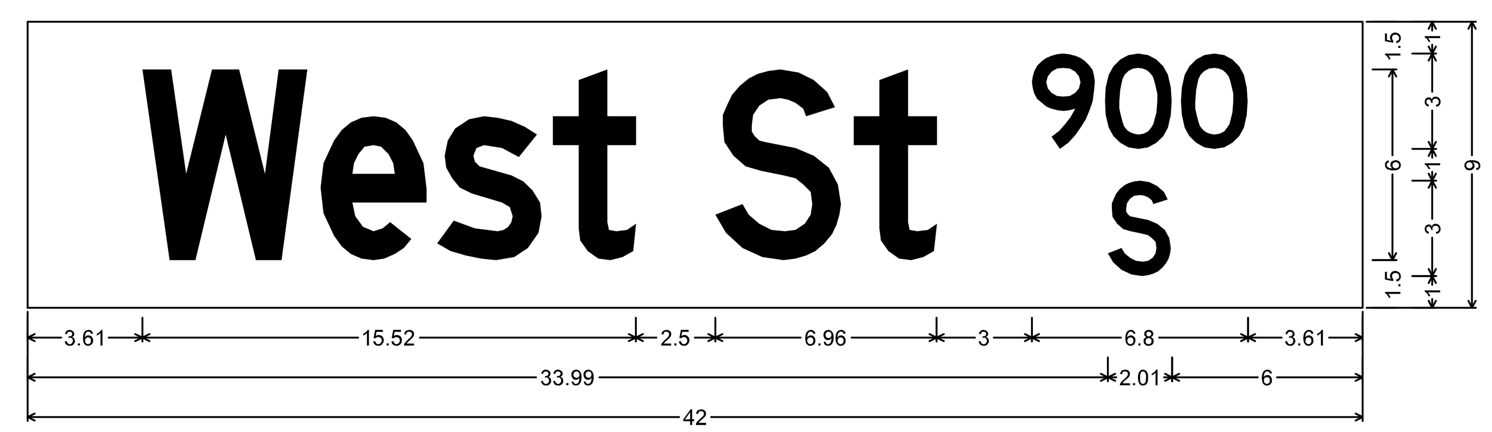
	W	
32.42	2.63	6.95



No border, White on Green;
[West] D 30% spacing; [St] D 30% spacing; [1000] D 50% spacing; [S] D 50% spacing;
Table of widths and spaces.

	W		e		s		t		S		t		1		0		0		0	
3.02	5.25	0.36	3.34	0.32	3.35	0.30	2.61	2.50	4.03	0.32	2.61	3.00	0.73	0.35	2.11	0.28	2.11	0.28	2.11	3.02

	S	
33.99	2.01	6.00



No border, White on Green;
[West] D 30% spacing; [St] D 30% spacing; [900] D 50% spacing; [S] D 50% spacing;
Table of widths and spaces.

	W		e		s		t		S		t		9		0		0	
3.61	5.25	0.35	3.35	0.32	3.34	0.30	2.61	2.50	4.03	0.33	2.60	3.00	2.02	0.28	2.11	0.28	2.11	3.61

	S	
33.99	2.01	6.00

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PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: NTS
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

SIGN FACE DETAILS

SHEET NO.
196

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

PHASE DIAGRAM

PEDESTRIAN PUSH BUTTON LAYOUT

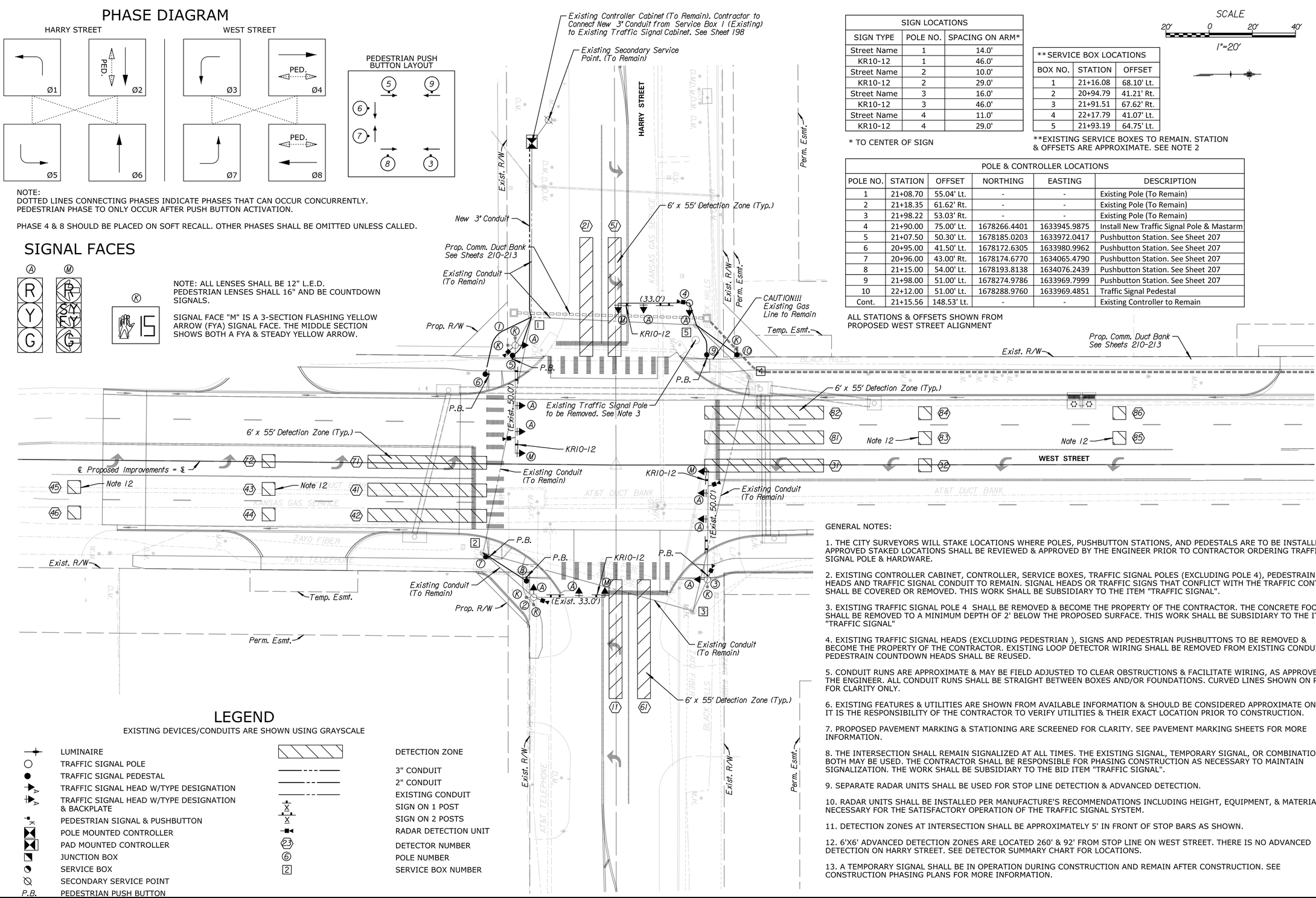
NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.
PEDESTRIAN PHASE TO ONLY OCCUR AFTER PUSH BUTTON ACTIVATION.

PHASE 4 & 8 SHOULD BE PLACED ON SOFT RECALL. OTHER PHASES SHALL BE OMITTED UNLESS CALLED.

SIGNAL FACES

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

SIGNAL FACE "M" IS A 3-SECTION FLASHING YELLOW ARROW (FYA) SIGNAL FACE. THE MIDDLE SECTION SHOWS BOTH A FYA & STEADY YELLOW ARROW.



LEGEND

EXISTING DEVICES/CONDUITS ARE SHOWN USING GRAYSCALE

LUMINAIRE	DETECTION ZONE
TRAFFIC SIGNAL POLE	3" CONDUIT
TRAFFIC SIGNAL PEDESTAL	2" CONDUIT
TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION	EXISTING CONDUIT
TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION & BACKPLATE	SIGN ON 1 POST
PEDESTRIAN SIGNAL & PUSHBUTTON	SIGN ON 2 POSTS
POLE MOUNTED CONTROLLER	RADAR DETECTION UNIT
PAD MOUNTED CONTROLLER	DETECTOR NUMBER
JUNCTION BOX	POLE NUMBER
SERVICE BOX	SERVICE BOX NUMBER
SECONDARY SERVICE POINT	
P.B. PEDESTRIAN PUSH BUTTON	

SIGN LOCATIONS		
SIGN TYPE	POLE NO.	SPACING ON ARM*
Street Name	1	14.0'
KR10-12	1	46.0'
Street Name	2	10.0'
KR10-12	2	29.0'
Street Name	3	16.0'
KR10-12	3	46.0'
Street Name	4	11.0'
KR10-12	4	29.0'

* TO CENTER OF SIGN

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

**SERVICE BOX LOCATIONS		
BOX NO.	STATION	OFFSET
1	21+16.08	68.10' Lt.
2	20+94.79	41.21' Rt.
3	21+91.51	67.62' Rt.
4	22+17.79	41.07' Lt.
5	21+93.19	64.75' Lt.

**EXISTING SERVICE BOXES TO REMAIN. STATION & OFFSETS ARE APPROXIMATE. SEE NOTE 2

POLE & CONTROLLER LOCATIONS					
POLE NO.	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
1	21+08.70	55.04' Lt.	-	-	Existing Pole (To Remain)
2	21+18.35	61.62' Rt.	-	-	Existing Pole (To Remain)
3	21+98.22	53.03' Rt.	-	-	Existing Pole (To Remain)
4	21+90.00	75.00' Lt.	1678266.4401	1633945.9875	Install New Traffic Signal Pole & Mastarm
5	21+07.50	50.30' Lt.	1678185.0203	1633972.0417	Pushbutton Station. See Sheet 207
6	20+95.00	41.50' Lt.	1678172.6305	1633980.9962	Pushbutton Station. See Sheet 207
7	20+96.00	43.00' Rt.	1678174.6770	1634065.4790	Pushbutton Station. See Sheet 207
8	21+15.00	54.00' Lt.	1678193.8138	1634076.2439	Pushbutton Station. See Sheet 207
9	21+98.00	51.00' Lt.	1678274.9786	1633969.7999	Pushbutton Station. See Sheet 207
10	22+12.00	51.00' Lt.	1678288.9760	1633969.4851	Traffic Signal Pedestal
Cont.	21+15.56	148.53' Lt.	-	-	Existing Controller to Remain

ALL STATIONS & OFFSETS SHOWN FROM PROPOSED WEST STREET ALIGNMENT

GENERAL NOTES:

1. THE CITY SURVEYORS WILL STAKE LOCATIONS WHERE POLES, PUSHBUTTON STATIONS, AND PEDESTALS ARE TO BE INSTALLED. APPROVED STAKED LOCATIONS SHALL BE REVIEWED & APPROVED BY THE ENGINEER PRIOR TO CONTRACTOR ORDERING TRAFFIC SIGNAL POLE & HARDWARE.

2. EXISTING CONTROLLER CABINET, CONTROLLER, SERVICE BOXES, TRAFFIC SIGNAL POLES (EXCLUDING POLE 4), PEDESTRAIN HEADS AND TRAFFIC SIGNAL CONDUIT TO REMAIN. SIGNAL HEADS OR TRAFFIC SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL, SHALL BE COVERED OR REMOVED. THIS WORK SHALL BE SUBSIDIARY TO THE ITEM "TRAFFIC SIGNAL".

3. EXISTING TRAFFIC SIGNAL POLE 4 SHALL BE REMOVED & BECOME THE PROPERTY OF THE CONTRACTOR. THE CONCRETE FOOTING SHALL BE REMOVED TO A MINIMUM DEPTH OF 2' BELOW THE PROPOSED SURFACE. THIS WORK SHALL BE SUBSIDIARY TO THE ITEM "TRAFFIC SIGNAL"

4. EXISTING TRAFFIC SIGNAL HEADS (EXCLUDING PEDESTRIAN), SIGNS AND PEDESTRIAN PUSHBUTTONS TO BE REMOVED & BECOME THE PROPERTY OF THE CONTRACTOR. EXISTING LOOP DETECTOR WIRING SHALL BE REMOVED FROM EXISTING CONDUIT. PEDESTRAIN COUNTDOWN HEADS SHALL BE REUSED.

5. 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. CURVED LINES SHOWN ON PLAN FOR CLARITY ONLY.

6. 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.

7. PROPOSED PAVEMENT MARKING & STATIONING ARE SCREENED FOR CLARITY. SEE PAVEMENT MARKING SHEETS FOR MORE INFORMATION.

8. THE INTERSECTION SHALL REMAIN SIGNALIZED AT ALL TIMES. THE EXISTING SIGNAL, TEMPORARY SIGNAL, OR COMBINATION OF BOTH MAY BE USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHASING CONSTRUCTION AS NECESSARY TO MAINTAIN SIGNALIZATION. THE WORK SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNAL".

9. SEPARATE RADAR UNITS SHALL BE USED FOR STOP LINE DETECTION & ADVANCED DETECTION.

10. RADAR UNITS SHALL BE INSTALLED PER MANUFACTURE'S RECOMMENDATIONS INCLUDING HEIGHT, EQUIPMENT, & MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL SYSTEM.

11. DETECTION ZONES AT INTERSECTION SHALL BE APPROXIMATELY 5' IN FRONT OF STOP BARS AS SHOWN.

12. 6'X6' ADVANCED DETECTION ZONES ARE LOCATED 260' & 92' FROM STOP LINE ON WEST STREET. THERE IS NO ADVANCED DETECTION ON HARRY STREET. SEE DETECTOR SUMMARY CHART FOR LOCATIONS.

13. A TEMPORARY SIGNAL SHALL BE IN OPERATION DURING CONSTRUCTION AND REMAIN AFTER CONSTRUCTION. SEE CONSTRUCTION PHASING PLANS FOR MORE INFORMATION.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

TRAFFIC SIGNAL IMPROVEMENTS WEST STREET & HARRY STREET

SHEET NO.

197

SHEET 197 OF 262

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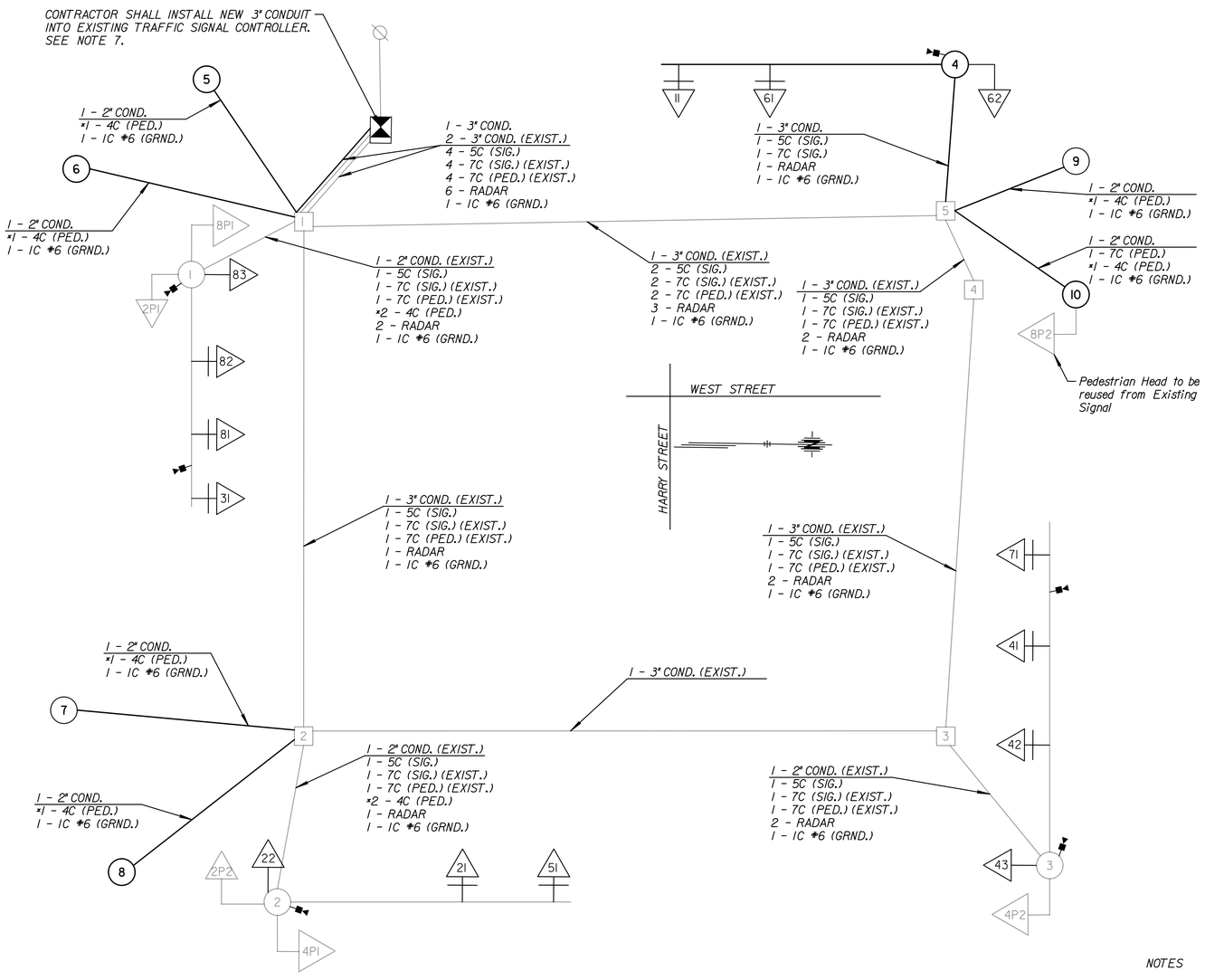
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



RADAR DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR RADAR DETECTION	ADVANCED RADAR DETECTION	†TIMINGS (SEC) TOTAL STRETCH + EXTENSION	†TIMINGS (SEC) DELAY	MODE PULSE	MODE PRESENCE	PHASE CALLED	DISTANCE FROM STOP BAR
11	6'x55'	X		2.0			X	1	-
21	6'x55'	X		2.0	2.0		X	2	-
31	6'x55'	X		1.0	0.5		X	3	-
32	6'x6'		X	3.0		X		3	92'
41,42	6'x55'	X		2.0			X	4	-
43,44	6'x6'		X	1.0		X		4	92'
45,46	6'x6'		X	2.5		X		4	260'
51	6'x55'	X		2.0			X	5	-
61	6'x55'	X		2.0	2.0		X	6	-
71	6'x55'	X		1.0	0.5		X	7	-
72	6'x6'		X	3.0		X		7	92'
81,82	6'x55'	X		2.0			X	8	-
83,84	6'x6'		X	1.0		X		8	92'
85,86	6'x6'		X	2.5		X		8	260'

† TIMINGS SHOWN IN RADAR DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. IT IS PREFERABLE THAT THE DETECTOR TIMINGS ARE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER, BUT A COMBINATION OF TIMINGS PROGRAMMED INTO BOTH THE CONTROLLER & DETECTOR IS ACCEPTABLE.

SUGGESTED TIMINGS (SEC.)

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN	**PEDESTRIAN WALK	**PEDESTRIAN FDW	**PEDESTRIAN SDW	CLEARANCE YELLOW	CLEARANCE ALL RED
1	6	12				3.3	2.7
2	6	22	9	17	3	3.2	2.4
3	6	15				4.0	1.7
4	10	41	9	16	3	3.9	2.0
5	6	15				3.2	2.3
6	6	19				3.3	2.5
7	6	12				3.9	1.9
8	10	44	9	18	3	4.0	1.7

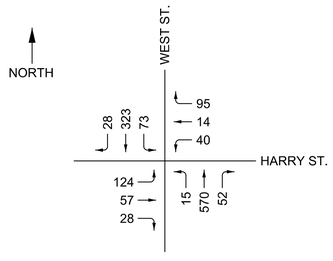
CLEARANCE DESIGN SPEEDS:
WEST STREET = 40 MPH
HARRY STREET:
(WEST OF WEST ST.) = 30 MPH
(EAST OF WEST ST.) = 30 MPH

*MAXIMUM GREEN IS FOR NON-PEDESTRIAN CALLS ONLY.

**PEDESTRIAN PHASING SHALL EXTEND PHASE WHEN CALLED IF APPROPRIATE. PEDESTRIAN CLEARANCE TIMES SHALL FOLLOW MUTCD GUIDELINES FOR PHASES, SEE MUTCD FIGURE 4E-2 FOR MORE INFORMATION.

PEAK HOUR VOLUMES

P.M. PEAK HOUR VOLUME



P.M. Peak Hour = 4:30 - 5:30 PM
Counts Conducted 02/15/2018

LEGEND

EXISTING DEVICES/CONDUITS ARE SHOWN USING GRAYSCALE

———	NEW DEVICE/CONDUIT
———	EXISTING DEVICE/CONDUIT
COND.	CONDUIT
SIG.	SIGNAL CABLE
PWR.	POWER CABLE
PED.	PEDESTRIAN SIGNAL CABLE
DET.	DETECTOR LEAD-IN CABLE
RADAR	RADAR POWER & COMMUNICATION CABLE
ST. LT.	STREET LIGHTING CABLE
INT.	SIGNAL INTERCONNECT CABLE
GRND.	WIRE FOR POLE GROUND
COAX.	COAXIAL CABLE
FUT.	FUTURE CABLE
EXIST.	EXISTING

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

NOTES

1. EXISTING WIRING NOT BEING REUSED SHALL BE COMPLETELY REMOVED FROM CONDUIT. NEW 7C (SIG) WIRE SHALL BE RUN TO NEW "M" SIGNAL HEADS ON SIGNAL PHASES 2 & 6. NEW WIRING SHALL BE USED BETWEEN PEDESTRIAN PUSHBUTTONS AND PEDESTRIAN SIGNAL HEADS. CONTRACTOR SHALL FURNISH NEW WIRING NECESSARY FOR THE SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.
2. ALL WIRES SHALL BE AWG #14 UNLESS SPECIFIED OTHERWISE. ALL WIRE SHALL BE SOLID WIRE. STRANDED WIRE IS NOT ALLOWED.
3. IC GROUND WIRE SHALL BE #6 AWG GREEN SOLID COPPER WIRE IN ACCORDANCE WITH ASTM B-3, BONDED TO CONDUIT.
4. DETECTOR CABLES SHALL RUN CONTINUOUS. NO SPLICES WILL BE ALLOWED.
5. IN NO CASE SHALL MORE THAN 60% OF AN CONDUIT BE FILLED.
6. ALL NEW CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL AS SHOWN IN THE PROJECT SPECIFICATIONS AND CONNECT TO EXISTING SERVICE BOXES.
7. CONTRACTOR SHALL CONNECT NEW 3" CONDUIT FROM SERVICE BOX 1 (EXISTING) TO EXISTING TRAFFIC SIGNAL CABINET. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THAT ILLUSTRATE THE METHOD OF CONSTRUCTION. THIS WORK SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNALIZATION"

EMERGENCY FLASH

PHASE	INDICATION
1	Red
2	Red
3	Red
4	Yellow
5	Red
6	Red
7	Red
8	Yellow
Pedestrian	Dark

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:
WIRING DIAGRAM
WEST STREET &
HARRY STREET

SHEET NO.
198
SHEET 198 OF 262

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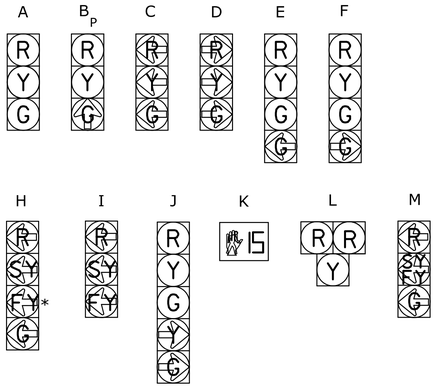
CHART A SIGNAL SUMMARY

SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	6
M	3	MAST ARM W/BACKPLATE	4
△K	1	SIDE-OF-POLE	△6
A	3	SIDE-OF-POLE	4

△EXISTING SIGNAL TO BE REUSED



NOTES:
1) * SHALL NOT BE DISPLAYED WHEN OPERATING IN THE PROTECTED ONLY MODE.
2) ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.
3) ALL LENSES ARE 12" UNLESS OTHERWISE NOTED.
4) ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN.
5) SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS.
6) SIGNAL "M" IS A 3-SECTION FLASHING YELLOW ARROW (FYA) SIGNAL FACE. THE MIDDLE SECTION SHOWS BOTH A FYA & STEADY YELLOW ARROW.
7) TRAFFIC SIGNAL POLE DESIGN SHALL MEET THE 2013 AASHTO DESIGN REQUIREMENTS.

CHART B TRAFFIC SIGNAL POLES

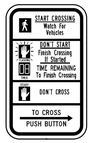
	POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
(1)	† 20.0'	† 50.0'	-	3	28.0', 40.0', 50.0'	-	-	-
(2)	† 20.0'	† 33.0'	-	2	21.0', 33.0'	-	-	-
(3)	† 20.0'	† 50.0'	-	3	28.0', 40.0', 50.0'	-	-	-
(4)	20.0'	33.0'	19.0'	2	21.3', 33.0'	-	-	1

†EXISTING (TO REMAIN)

CHART C OVERHEAD STREET NAME SIGNS

SIGN	LEGEND	LENGTH	QUANTITY
1	West Street (1600)	78"	2
2	Harry Street (3900)	72"	2

FOR OVERHEAD STREET NAME SIGN DETAILS, SEE SHEETS 195 &203



R10-3E

KR10-12

BILL OF MATERIALS
- FOR INFORMATION ONLY -

ITEM	QUANT.	UNIT	NOTE
CONTROLLER UNIT	-	EACH	EXISTING. SEE NOTE 3
MALFUNCTION MANAGEMENT UNIT	-	EACH	EXISTING. SEE NOTE 3
SURGE PROTECTOR	-	EACH	EXISTING. SEE NOTE 3
LOAD SWITCH	-	EACH	EXISTING. SEE NOTE 3
FLASHER	-	EACH	EXISTING. SEE NOTE 3
FLASH TRANSFER RELAY	-	EACH	EXISTING. SEE NOTE 3
DETECTOR, 2-CHANNEL	-	EACH	
DETECTOR, 4-CHANNEL	-	EACH	
POLE MOUNTED CABINET (336)	-	EACH	
PAD MOUNTED CABINET (332)	-	EACH	EXISTING. SEE NOTE 3
TRAFFIC SIGNAL HEAD	CHART A	EACH	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	
BACK PLATE	CHART A	EACH	SEE NOTE 6
VEHICLE TRAFFIC SIGNAL LAMP	42	EACH	
PEDESTRIAN TRAFFIC SIGNAL LAMP	-	EACH	EXISTING TO BE REUSED
L.E.D. LENS	CHART A	EACH	
PEDESTRIAN PUSHBUTTON & SIGN (R10-3E; 9"x15")	6	EACH	
TRAFFIC SIGNAL POLE	CHART B	EACH	SEE NOTE 4
TRAFFIC SIGNAL PEDESTAL ALUMINUM	1	EACH	
PUSH BUTTON STATION	5	EACH	
TERMINAL BLOCK	10	EACH	
JUNCTION BOX	-	EACH	
SERVICE BOX	-	EACH	EXISTING
LUMINAIRE ARM	-	EACH	
LUMINAIRE LED WESTAR 250 WATT EQUIVALENT	-	EACH	
PHOTOCELL	-	EACH	
UNFUSED STREET LIGHT CONNECTOR KIT	-	EACH	
FUSED STREET LIGHT CONNECTOR KIT	-	EACH	
OVERHEAD STREET NAME SIGN	CHART C	EACH	
KR10-12 SIGN (30" X 36")	4	EACH	
R10-12 SIGN (24" X 30")	-	EACH	
BLANK OUT SIGN	-	EACH	
ENTRANCE HEAD	-	EACH	
SERVICE ENCLOSURE, 125 AMP. COMMERCIAL	-	EACH	
CIRCUIT BREAKER, TRAFFIC SIGNAL, 50 AMP.	-	EACH	
FUSED STREET LIGHT CONNECTOR KIT (15 AMP)	-	EACH	
SURGE ARRESTOR CA 302R	-	EACH	
GROUND ROD & CLAMP	7	EACH	SEE NOTE 8
SERVICE WIRE NO. 6 AWG 1/C	-	LIN FT	
LIGHTING DISTRIBUTION WIRE NO. 8 AWG 1/C	-	LIN FT	
POLE & BRACKET WIRE NO. 10 AWG 1/C	-	LIN FT	
GROUND WIRE NO. 6 AWG 1/C	1905	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	1160	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	-	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 4/C	380	LIN FT	
RADAR	1895	LIN FT	
SHIELDED DETECTOR LEAD-IN CABLE NO. 14 AWG 2/C	-	LIN FT	
LOOP SEALANT	AS REQ'D		
PRE-FORMED LOOP	-	EACH	
CONDUIT, 1" & FITTINGS	-	LIN FT	
CONDUIT, 2" & FITTINGS	121	LIN FT	
CONDUIT, 3" & FITTINGS	93	LIN FT	
CONDUIT, 4" & FITTINGS	-	LIN FT	
RADAR DETECTION SYSTEM	1	LSUM	

NOTES:

1. QUANTITIES SHOWN ARE FOR WEST STREET & HARRY STREET SIGNAL.
2. THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.
3. THE CONTRACTOR SHALL UTILIZE THE EXISTING DEVICES WITHIN THE SIGNAL CABINET. EXISTING DEVICES IN THE SIGNAL CABINET THAT ARE NOT NEEDED SHALL REMAIN IN PLACE OR BE REMOVED IN SALVAGEABLE CONDITION. DAMAGED DEVICES SHALL BE REPLACED. IF THE DEVICE IS DAMAGED BY THE CONTRACTOR, THE DEVICE SHALL BE REPLACED AT NO ADDITIONAL CHARGE. EXISTING EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, THE SIGNAL CABINET, CONTROLLER, CONFLICT MONITOR, LOAD SWITCHES AND OTHER EXISTING EQUIPMENT WITHIN THE CABINET.
4. EXCLUDING SIGNAL POLE 4, EXISTING SIGNAL POLES AND MASTARMS SHALL REMAIN. NEW TRAFFIC SIGNAL POLE 4 AND MASTARM SHALL BE GALVANIZED TO MATCH EXISTING POLES.
5. ACCESSIBLE PEDESTRIAN SIGNALS (APS) SHALL BE UTILIZED AND INCLUDE ALL MOUNTING ASSEMBLY AND HARDWARE. UNITS SHALL MEET STANDARDS FOUND IN THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND INCLUDE BOTH AUDIBLE AND VIBROTACTILE WALK INDICATIONS. SEE TRAFFIC SIGNAL SPECIFICATIONS FOR ADDITIONAL DETAILS.
6. ALL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.
7. RADAR UNITS FOR STOP BAR DETECTION SHALL BE WAVETRONIX MATRIX UNITS. RADAR UNITS FOR ADVANCED DETECTION SHALL BE WAVETRONIX ADVANCE UNITS.
8. EACH NEW POLE, PEDESTAL, AND PUSHBUTTON STATION SHALL EACH BE GROUNDED WITH A SEPARATE GROUND ROD. GROUND WIRE SHALL BE CONNECTED TO EACH ROD, FORMING A CONTINUOUS GROUND CIRCUIT.
9. TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE LOADING & ALLOWABLE STRESS REQUIREMENTS OF THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", LATEST EDITION.

BID ITEM

ITEM	UNIT	QUANTITY
TRAFFIC SIGNALIZATION (HARRY)	L.S.	L.S.

- FOR INFORMATION ONLY -

TranSystems
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WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1" = 20'
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:
TRAFFIC SIGNAL QUANTITIES WEST STREET & HARRY STREET

SHEET NO.
199
SHEET 199 OF 262

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

PHASE DIAGRAM

PEDESTRIAN PUSH BUTTON LAYOUT

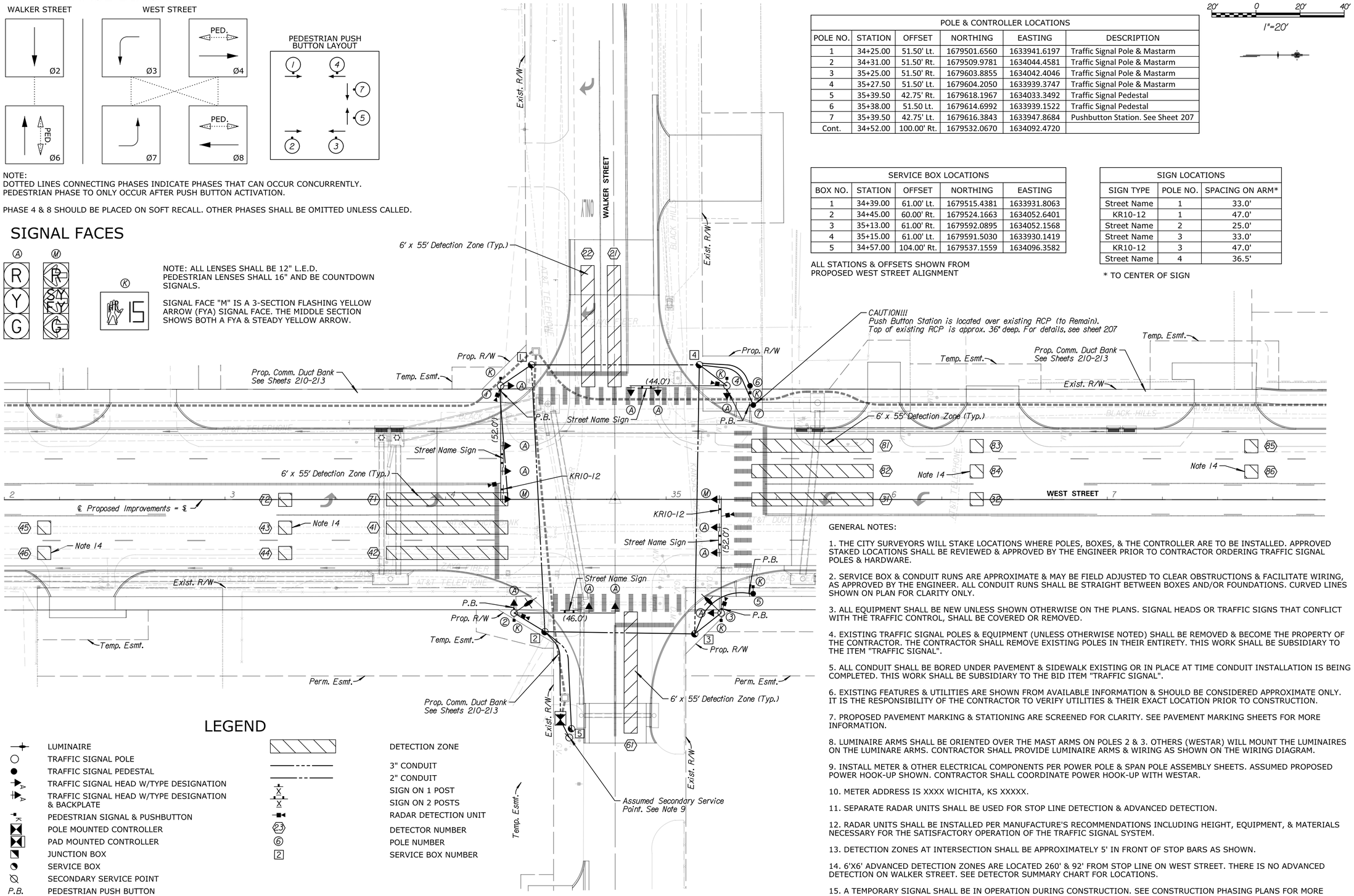
NOTE:
DOTTED LINES CONNECTING PHASES INDICATE PHASES THAT CAN OCCUR CONCURRENTLY.
PEDESTRIAN PHASE TO ONLY OCCUR AFTER PUSH BUTTON ACTIVATION.

PHASE 4 & 8 SHOULD BE PLACED ON SOFT RECALL. OTHER PHASES SHALL BE OMITTED UNLESS CALLED.

SIGNAL FACES

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

SIGNAL FACE "M" IS A 3-SECTION FLASHING YELLOW ARROW (FYA) SIGNAL FACE. THE MIDDLE SECTION SHOWS BOTH A FYA & STEADY YELLOW ARROW.



LEGEND

	LUMINAIRE		DETECTION ZONE
	TRAFFIC SIGNAL POLE		3" CONDUIT
	TRAFFIC SIGNAL PEDESTAL		2" CONDUIT
A	TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION	X	SIGN ON 1 POST
A	TRAFFIC SIGNAL HEAD W/TYPE DESIGNATION & BACKPLATE	X X	SIGN ON 2 POSTS
K	PEDESTRIAN SIGNAL & PUSHBUTTON		RADAR DETECTION UNIT
	POLE MOUNTED CONTROLLER	23	DETECTOR NUMBER
	PAD MOUNTED CONTROLLER	6	POLE NUMBER
	JUNCTION BOX	2	SERVICE BOX NUMBER
	SERVICE BOX		
	SECONDARY SERVICE POINT		
P.B.	PEDESTRIAN PUSH BUTTON		

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

POLE & CONTROLLER LOCATIONS					
POLE NO.	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
1	34+25.00	51.50' Lt.	1679501.6560	1633941.6197	Traffic Signal Pole & Mastarm
2	34+31.00	51.50' Rt.	1679509.9781	1634044.4581	Traffic Signal Pole & Mastarm
3	35+25.00	51.50' Rt.	1679603.8855	1634042.4046	Traffic Signal Pole & Mastarm
4	35+27.50	51.50' Lt.	1679604.2050	1633939.3747	Traffic Signal Pole & Mastarm
5	35+39.50	42.75' Rt.	1679618.1967	1634033.3492	Traffic Signal Pedestal
6	35+38.00	51.50 Lt.	1679614.6992	1633939.1522	Traffic Signal Pedestal
7	35+39.50	42.75' Lt.	1679616.3843	1633947.8684	Pushbutton Station. See Sheet 207
Cont.	34+52.00	100.00' Rt.	1679532.0670	1634092.4720	

SERVICE BOX LOCATIONS				
BOX NO.	STATION	OFFSET	NORTHING	EASTING
1	34+39.00	61.00' Lt.	1679515.4381	1633931.8063
2	34+45.00	60.00' Rt.	1679524.1663	1634052.6401
3	35+13.00	61.00' Rt.	1679592.0895	1634052.1568
4	35+15.00	61.00' Lt.	1679591.5030	1633930.1419
5	34+57.00	104.00' Rt.	1679537.1559	1634096.3582

ALL STATIONS & OFFSETS SHOWN FROM PROPOSED WEST STREET ALIGNMENT

SIGN LOCATIONS		
SIGN TYPE	POLE NO.	SPACING ON ARM*
Street Name	1	33.0'
KR10-12	1	47.0'
Street Name	2	25.0'
Street Name	3	33.0'
KR10-12	3	47.0'
Street Name	4	36.5'

* TO CENTER OF SIGN

GENERAL NOTES:

1. THE CITY SURVEYORS WILL STAKE LOCATIONS WHERE POLES, BOXES, & THE CONTROLLER ARE TO BE INSTALLED. APPROVED STAKED LOCATIONS SHALL BE REVIEWED & APPROVED BY THE ENGINEER PRIOR TO CONTRACTOR ORDERING TRAFFIC SIGNAL POLES & HARDWARE.

2. SERVICE BOX & 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. CURVED LINES SHOWN ON PLAN FOR CLARITY ONLY.

3. ALL EQUIPMENT SHALL BE NEW UNLESS SHOWN OTHERWISE ON THE PLANS. SIGNAL HEADS OR TRAFFIC SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL, SHALL BE COVERED OR REMOVED.

4. EXISTING TRAFFIC SIGNAL POLES & EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE REMOVED & BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE EXISTING POLES IN THEIR ENTIRETY. THIS WORK SHALL BE SUBSIDIARY TO THE ITEM "TRAFFIC SIGNAL".

5. ALL CONDUIT SHALL BE BORED UNDER PAVEMENT & SIDEWALK EXISTING OR IN PLACE AT TIME CONDUIT INSTALLATION IS BEING COMPLETED. THIS WORK SHALL BE SUBSIDIARY TO THE BID ITEM "TRAFFIC SIGNAL".

6. 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.

7. PROPOSED PAVEMENT MARKING & STATIONING ARE SCREENED FOR CLARITY. SEE PAVEMENT MARKING SHEETS FOR MORE INFORMATION.

8. LUMINAIRE ARMS SHALL BE ORIENTED OVER THE MAST ARMS ON POLES 2 & 3. OTHERS (WESTAR) WILL MOUNT THE LUMINAIRES ON THE LUMINARE ARMS. CONTRACTOR SHALL PROVIDE LUMINAIRE ARMS & WIRING AS SHOWN ON THE WIRING DIAGRAM.

9. INSTALL METER & OTHER ELECTRICAL COMPONENTS PER POWER POLE & SPAN POLE ASSEMBLY SHEETS. ASSUMED PROPOSED POWER HOOK-UP SHOWN. CONTRACTOR SHALL COORDINATE POWER HOOK-UP WITH WESTAR.

10. METER ADDRESS IS XXXX WICHITA, KS XXXXX.

11. SEPARATE RADAR UNITS SHALL BE USED FOR STOP LINE DETECTION & ADVANCED DETECTION.

12. RADAR UNITS SHALL BE INSTALLED PER MANUFACTURE'S RECOMMENDATIONS INCLUDING HEIGHT, EQUIPMENT, & MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL SYSTEM.

13. DETECTION ZONES AT INTERSECTION SHALL BE APPROXIMATELY 5' IN FRONT OF STOP BARS AS SHOWN.

14. 6'X6' ADVANCED DETECTION ZONES ARE LOCATED 260' & 92' FROM STOP LINE ON WEST STREET. THERE IS NO ADVANCED DETECTION ON WALKER STREET. SEE DETECTOR SUMMARY CHART FOR LOCATIONS.

15. A TEMPORARY SIGNAL SHALL BE IN OPERATION DURING CONSTRUCTION. SEE CONSTRUCTION PHASING PLANS FOR MORE INFORMATION.

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245 NORTH WACO
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WICHITA, KANSAS 67202
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CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS
CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

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TRAFFIC SIGNAL IMPROVEMENTS WEST STREET & WALKER STREET

SHEET NO.
200
SHEET 200 OF 262

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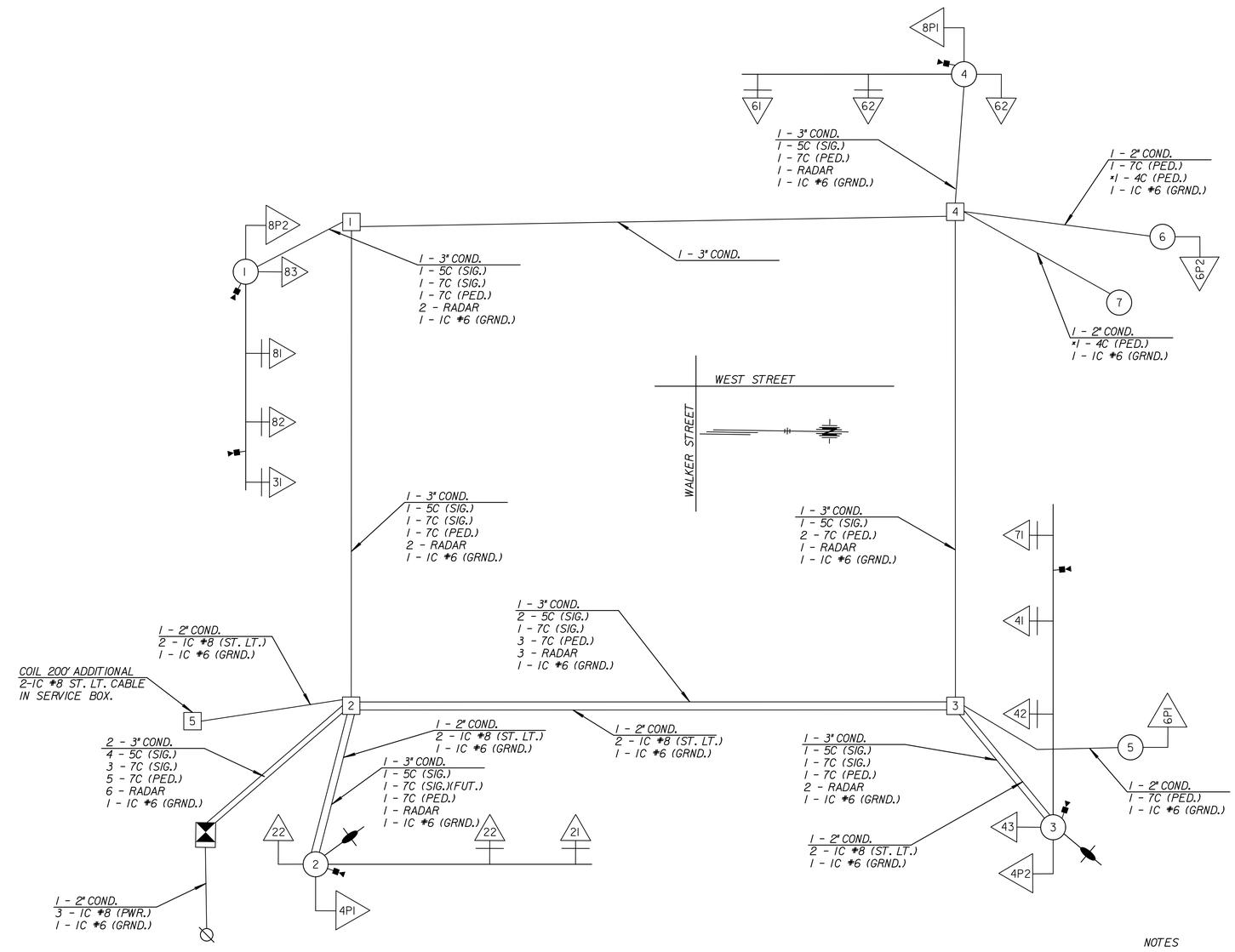


RADAR DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR RADAR DETECTION	ADVANCED RADAR DETECTION	†TIMINGS (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PULSE	PRESENCE		
21	6'x55'	X		2.0	2.0		X	2	-
22	6'x55'	X		2.0	8.0		X	2	-
31	6'x55'	X		1.0	0.5		X	3	-
32	6'x6'		X	3.0		X		3	92'
41, 42	6'x55'	X		2.0			X	4	-
43, 44	6'x6'		X	1.0		X		4	92'
45, 46	6'x6'		X	2.5		X		4	260'
61	6'x55'	X		2.0	2.0		X	6	-
71	6'x55'	X		1.0	0.5		X	7	-
72	6'x6'		X	3.0		X		7	92'
81, 82	6'x55'	X		2.0			X	8	-
83, 84	6'x6'		X	1.0		X		8	92'
85, 86	6'x6'		X	2.5		X		8	260'

† *TIMINGS SHOWN IN RADAR DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. IT IS PREFERABLE THAT THE DETECTOR TIMINGS ARE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER, BUT A COMBINATION OF TIMINGS PROGRAMMED INTO BOTH THE CONTROLLER & DETECTOR IS ACCEPTABLE.*

SUGGESTED TIMINGS (SEC.)

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN	**PEDESTRIAN			CLEARANCE	
			WALK	FDW	SDW	YELLOW	ALL RED
2	6	15				3.3	2.4
3	6	10				4.0	1.8
4	10	41	11	17	3	3.9	1.7
6	6	15	8	18	3	3.3	2.4
7	6	10				3.9	1.5
8	10	44	11	20	3	4.0	2.0

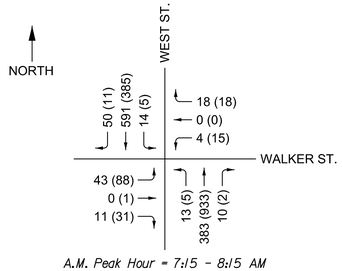
CLEARANCE DESIGN SPEEDS:
WEST STREET = 40 MPH
WALKER STREET = 30 MPH

**MAXIMUM GREEN IS FOR NON-PEDESTRIAN CALLS ONLY.*

***PEDESTRIAN PHASING SHALL EXTEND PHASE WHEN CALLED IF APPROPRIATE. PEDESTRIAN CLEARANCE TIMES SHALL FOLLOW MUTCD GUIDELINES FOR PHASES, SEE MUTCD FIGURE 4E-2 FOR MORE INFORMATION.*

PEAK HOUR VOLUMES

A.M. (P.M.) PEAK HOUR VOLUME



A.M. Peak Hour = 7:15 - 8:15 AM
P.M. Peak Hour = 4:30 - 5:30 PM
Counts Conducted 10/25/2017

LEGEND

COND.	CONDUIT
SIG.	SIGNAL CABLE
PWR.	POWER CABLE
PED.	PEDESTRIAN SIGNAL CABLE
DET.	DETECTOR LEAD-IN CABLE
RADAR	RADAR POWER & COMMUNICATION CABLE
ST. LT.	STREET LIGHTING CABLE
INT.	SIGNAL INTERCONNECT CABLE
GRND.	WIRE FOR POLE GROUND
COAX.	COAXIAL CABLE
FUT.	FUTURE CABLE

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

NOTES

1. *ALL WIRES SHALL BE AWG #14 UNLESS SPECIFIED OTHERWISE. ALL WIRE SHALL BE SOLID WIRE. STRANDED WIRE IS NOT ALLOWED.*
2. *IC GROUND WIRE SHALL BE #6 AWG GREEN SOLID COPPER WIRE IN ACCORDANCE WITH ASTM B-3, BONDED TO CONDUIT.*
3. *DETECTOR CABLES SHALL RUN CONTINUOUS. NO SPLICES WILL BE ALLOWED.*
4. *IN NO CASE SHALL MORE THAN 60% OF AN CONDUIT BE FILLED.*
5. *LUMINAIRES WILL BE INSTALLED BY OTHERS (WESTAR). CONTRACTOR SHALL PROVIDE LUMINAIRE ARMS AND WIRING AS SHOWN ON THE WIRING DIAGRAM. AN ADDITIONAL 200' OF IC #8 STREET LIGHT CABLE SHALL BE COILED IN SERVICE BOX #5 LOCATED NEAR THE SERVICE POINT.*
6. *ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL AS SHOWN IN THE PROJECT SPECIFICATIONS.*

EMERGENCY FLASH

PHASE	INDICATION
2	Red
3	Red
4	Yellow
6	Red
7	Red
8	Yellow
Pedestrian	Dark

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:

WIRING DIAGRAM
WEST STREET &
WALKER STREET

SHEET NO.
201
SHEET 201 OF 262

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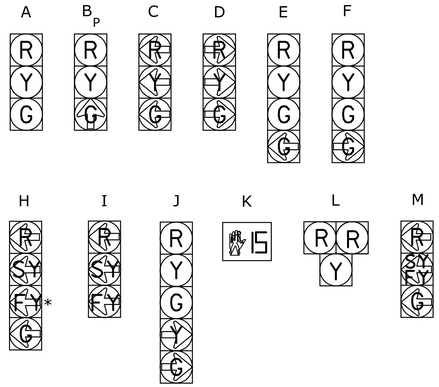
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

CHART A SIGNAL SUMMARY

SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	8
M	3	MAST ARM W/BACKPLATE	2
K	1	SIDE-OF-POLE	6
A	3	SIDE-OF-POLE	4



NOTES:
1) * SHALL NOT BE DISPLAYED WHEN OPERATING IN THE PROTECTED ONLY MODE.
2) ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.
3) ALL LENSES ARE 12" UNLESS OTHERWISE NOTED.
4) ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN.
5) SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS.
6) SIGNAL "M" IS A 3-SECTION FLASHING YELLOW ARROW (FYA) SIGNAL FACE. THE MIDDLE SECTION SHOWS BOTH A FYA & STEADY YELLOW ARROW.
7) TRAFFIC SIGNAL POLE DESIGN SHALL MEET THE 2013 AASHTO DESIGN REQUIREMENTS.

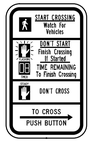
CHART B TRAFFIC SIGNAL POLES

	POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
(1)	20.0'	52.0'	19.0'	3	27.2', 38.7', 51.4'	-	-	1
(2)	35.0'	46.0'	19.0'	2	34.0', 45.8'	15.0'	40.0'	1
(3)	35.0'	52.0'	19.0'	3	27.3', 38.8', 51.5'	15.0'	40.0'	1
(4)	20.0'	44.0'	19.0'	1	31.5', 43.5'	-	-	1

CHART C OVERHEAD STREET NAME SIGNS

SIGN	LEGEND	LENGTH	QUANTITY
1	West Street (1100)	78"	2
2	Walker Street (3900)	78"	2

FOR OVERHEAD STREET NAME SIGN DETAILS, SEE SHEETS 195 & 203



R10-3E

KR10-12

BILL OF MATERIALS
- FOR INFORMATION ONLY -

ITEM	QUANT.	UNIT	NOTE
CONTROLLER UNIT	1	EACH	CITY PROVIDED - CONTRACTOR INSTALLED
MALFUNCTION MANAGEMENT UNIT	1	EACH	CITY PROVIDED - CONTRACTOR INSTALLED
SURGE PROTECTOR	1	EACH	
LOAD SWITCH	9	EACH	
FLASHER	2	EACH	
FLASH TRANSFER RELAY	4	EACH	
DETECTOR, 2-CHANNEL	-	EACH	
DETECTOR, 4-CHANNEL	-	EACH	
POLE MOUNTED CABINET (336)	-	EACH	
PAD MOUNTED CABINET (332)	1	EACH	
TRAFFIC SIGNAL HEAD	CHART A	EACH	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	
BACK PLATE	CHART A	EACH	SEE NOTE 6
VEHICLE TRAFFIC SIGNAL LAMP	42	EACH	
PEDESTRIAN TRAFFIC SIGNAL LAMP	6	EACH	
L.E.D. LENS	CHART A	EACH	
PEDESTRIAN PUSHBUTTON & SIGN (R10-3E; 9"x15")	6	EACH	
TRAFFIC SIGNAL POLE	CHART B	EACH	
TRAFFIC SIGNAL PEDESTAL ALUMINUM	2	EACH	
PUSH BUTTON STATION	1	EACH	
TERMINAL BLOCK	7	EACH	
JUNCTION BOX	-	EACH	
SERVICE BOX	5	EACH	
LUMINAIRE ARM	2	EACH	
LUMINAIRE LED WESTAR 250 WATT EQUIVALENT	-	EACH	WESTAR PROVIDED & INSTALLED
PHOTOCELL	-	EACH	WESTAR PROVIDED & INSTALLED
UNFUSED STREET LIGHT CONNECTOR KIT	2	EACH	
FUSED STREET LIGHT CONNECTOR KIT	2	EACH	
OVERHEAD STREET NAME SIGN	CHART C	EACH	
KR10-12 SIGN (30" X 36")	2	EACH	
R10-12 SIGN (24" X 30")	-	EACH	
BLANK OUT SIGN	-	EACH	
ENTRANCE HEAD	1	EACH	
SERVICE ENCLOSURE, 125 AMP. COMMERCIAL	1	EACH	
CIRCUIT BREAKER, TRAFFIC SIGNAL, 50 AMP.	1	EACH	
FUSED STREET LIGHT CONNECTOR KIT (15 AMP)	1	EACH	LOCATE IN SERVICE BOX #5
SURGE ARRESTOR CA 302R	1	EACH	
GROUND ROD & CLAMP	14	EACH	SEE NOTE 8
SERVICE WIRE NO. 6 AWG 1/C	70	LIN FT	
LIGHTING DISTRIBUTION WIRE NO. 8 AWG 1/C	775	LIN FT	
POLE & BRACKET WIRE NO. 10 AWG 1/C	210	LIN FT	
GROUND WIRE NO. 6 AWG 1/C	3035	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	1810	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	1695	LIN FT	
MULTI-CONDUCTOR CABLE NO. 14 AWG 4/C	175	LIN FT	
RADAR	1515	LIN FT	
SHIELDED DETECTOR LEAD-IN CABLE NO. 14 AWG 2/C	-	LIN FT	
LOOP SEALANT	AS REQ'D		
PRE-FORMED LOOP	-	EACH	
CONDUIT, 1" & FITTINGS	-	LIN FT	
CONDUIT, 2" & FITTINGS	258	LIN FT	
CONDUIT, 3" & FITTINGS	541	LIN FT	
CONDUIT, 4" & FITTINGS	-	LIN FT	
RADAR DETECTION SYSTEM	1	LSUM	

NOTES:

1. QUANTITIES SHOWN ARE FOR WEST STREET & WALKER STREET SIGNAL.
2. THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.
3. THE CONFLICT MONITORS SUPPLIED BY THE CITY OF WICHITA SHALL BE 2010 ECL-IP CONFLICT MONITORS AND SHALL MEET THE REQUIREMENTS OUTLINED IN CALTRANS TEES 2002 (LATEST VERSION).
4. ALL POLES AND EQUIPMENT SHALL BE PAINTED BLACK.
5. ACCESSIBLE PEDESTRIAN SIGNALS (APS) SHALL BE UTILIZED AND INCLUDE ALL MOUNTING ASSEMBLY AND HARDWARE. UNITS SHALL MEET STANDARDS FOUND IN THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND INCLUDE BOTH AUDIBLE AND VIBROTACTILE WALK INDICATIONS. SEE TRAFFIC SIGNAL SPECIFICATIONS FOR ADDITIONAL DETAILS.
6. ALL BACK PLATES SHALL BE EQUIPPED WITH A 2" RETRO-REFLECTIVE YELLOW BORDER MEETING ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.
7. RADAR UNITS FOR STOP BAR DETECTION SHALL BE WAVETRONIX MATRIX UNITS. RADAR UNITS FOR ADVANCED DETECTION SHALL BE WAVETRONIX ADVANCE UNITS.
8. EACH POLE, PEDESTAL, JUNCTION BOX AND CONTROLLER CABINET SHALL EACH BE GROUNDED WITH A SEPARATE GROUND ROD. GROUND WIRE SHALL BE CONNECTED TO EACH ROD, FORMING A CONTINUOUS GROUND CIRCUIT.
9. TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE LOADING & ALLOWABLE STRESS REQUIREMENTS OF THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", LATEST EDITION.

BID ITEM

ITEM	UNIT	QUANTITY
TRAFFIC SIGNALIZATION (WALKER)	L.S.	L.S.

- FOR INFORMATION ONLY -

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO: 472-85296
SCALE: 1" = 20'
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:
TRAFFIC SIGNAL QUANTITIES WEST STREET & WALKER STREET

SHEET NO.
202
SHEET 202 OF 262

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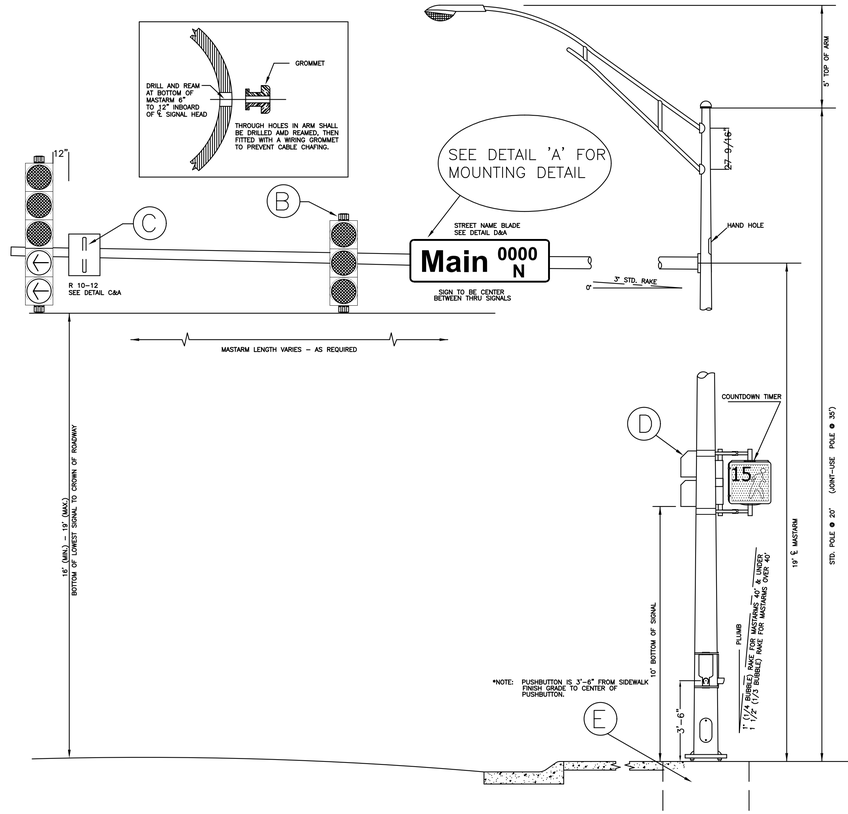
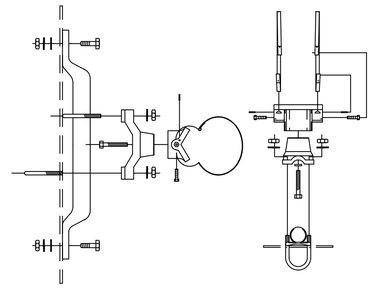
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING

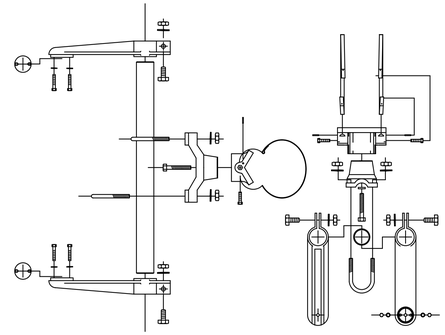


BANDED SIGN MOUNTING BRACKET DETAIL



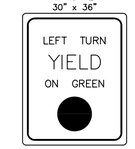
A

TYPE I SIGNAL MOUNTING BRACKET ASSEMBLY DETAIL



B

STANDARD SIGNING



C

DWG. NO.
N45AN0-X

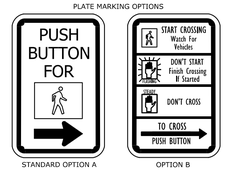
PUSH BUTTON STATION

Message and Sound options include:
* Locating tone
* Verbal Street Name (Example: Crossing Main at Central)
* All features field selectable using a Configurator.

Construction :
* Die-cast aluminum, powder coated Black in color.
* Street Name in Braille in the directional arrow of the sign.
* Option "B" signing option.

Push button :
* ADA compliant
* Raised tactile arrow on the button
* Solid State switch rated at a Minimum of 20 million actuations

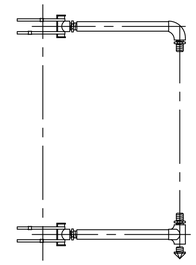
PLATE MARKING OPTIONS



STANDARD OPTION A

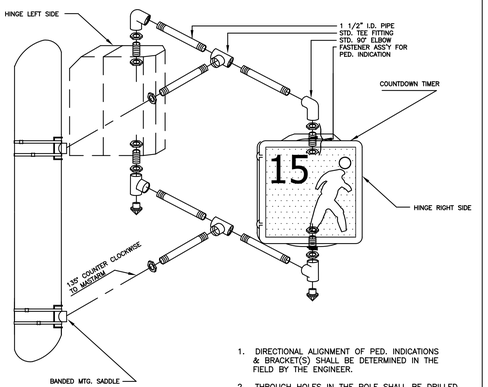
OPTION B

TYPE III SIDE-OF-POLE MOUNTING BRACKET ASSEMBLY



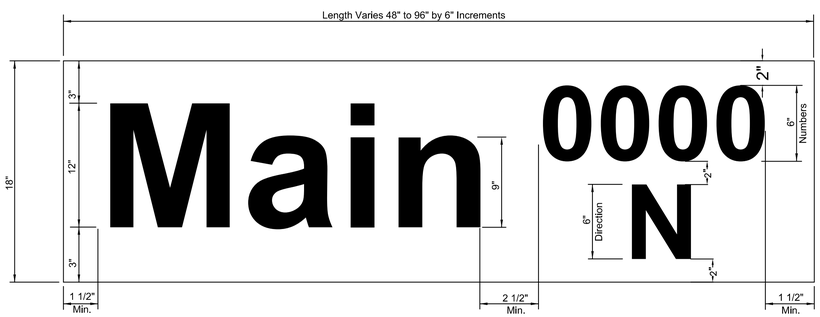
F

TYPE II SIGNAL MOUNTING BRACKET ASSEMBLY (SIDE-OF-POLE)

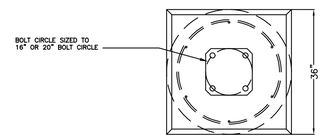


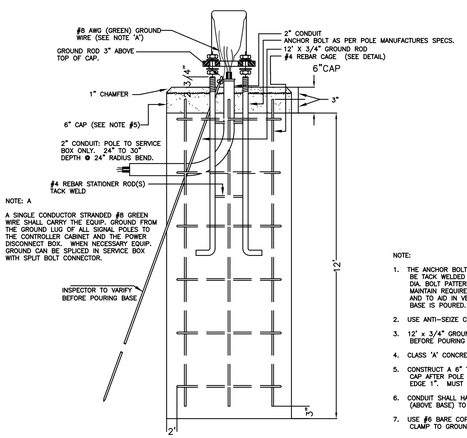
1. DIRECTIONAL ALIGNMENT OF PED. INDICATIONS & BRACKET(S) SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. THROUGH HOLES IN THE POLE SHALL BE DRILLED AND WELL REAMED TO PREVENT CABLE CHAFING.
3. HINGE PEDESTRIAN SIGNAL DOORS AWAY FROM POLE.
4. CLAM SHELL BRACKETS ARE NOT ACCEPTABLE.

D



DETAIL D
METRO

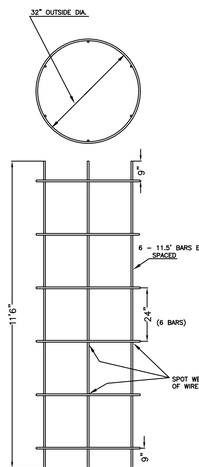




NOTE:

1. THE ANCHOR BOLTS FOR THE SIGNAL POLE SHALL BE TACK WELDED TOGETHER IN A 16" OR 20" DIA. BOLT PATTERN (ON CENTERS AS SHOWN) TO MAINTAIN REQUIRED BOLT CONFIGURATION PATTERN AND TO AID IN VERTICAL POSITIONING WHILE CONCRETE BASE IS POURED.
2. USE ANTI-SEIZE COMPOUND ON ALL THREADS.
3. 12' x 3/4" GROUND ROD TO BE POSITIONED BEFORE POURING BASE.
4. CLASS 'A' CONCRETE SHALL BE USED TO CONSTRUCT BASE.
5. CONSTRUCT A 6" THICK x 36" SQUARE CONCRETE CAP AFTER POLE HAS BEEN ERECTED & PLUMBED. CHAMFER EDGE 1". MUST BE APPROVED BY ENG. BEFORE POURED.
6. CONDUIT SHALL HAVE PLASTIC (OR METAL) BUSHING (ABOVE BASE) TO PREVENT CABLE CHAFING.
7. USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.

REBAR CAGE



E

REVISED: AUGUST 2014

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STEEL SIGNAL POLE ASSEMBLY DETAILS

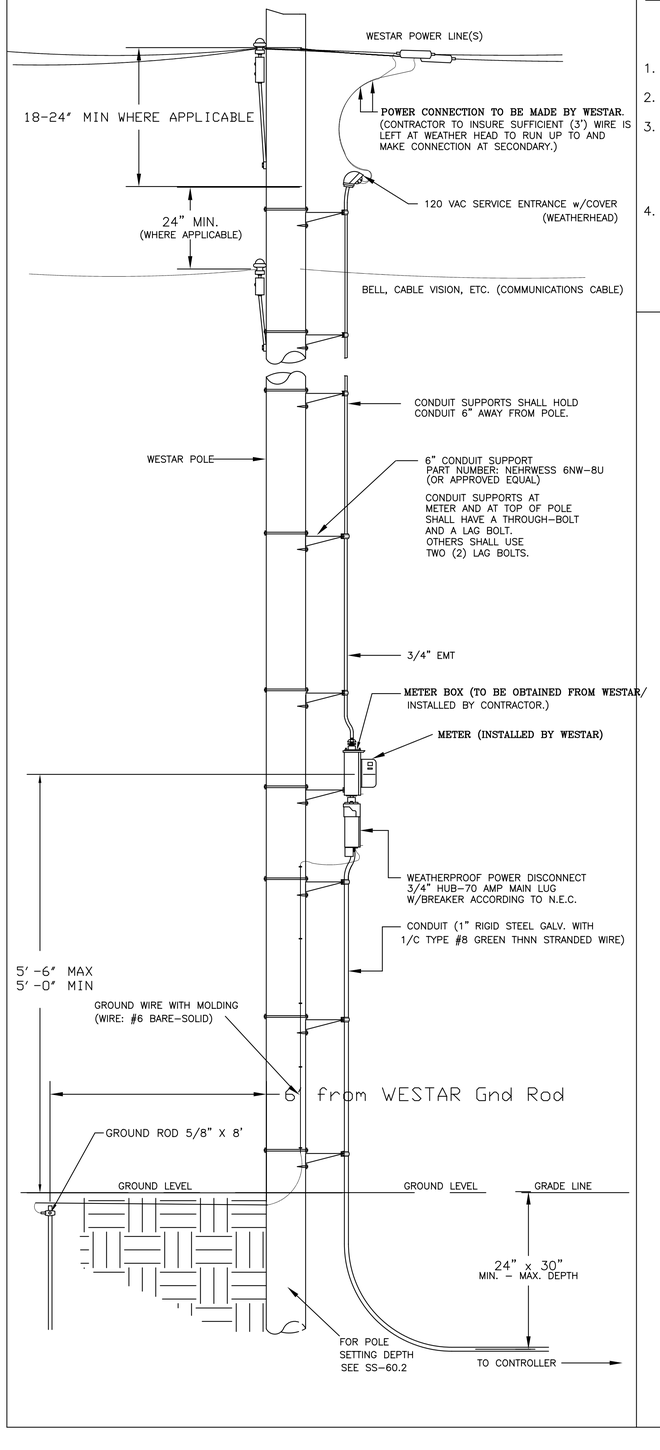
TRAFFIC ENGINEER
MIKE ARMOUR, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

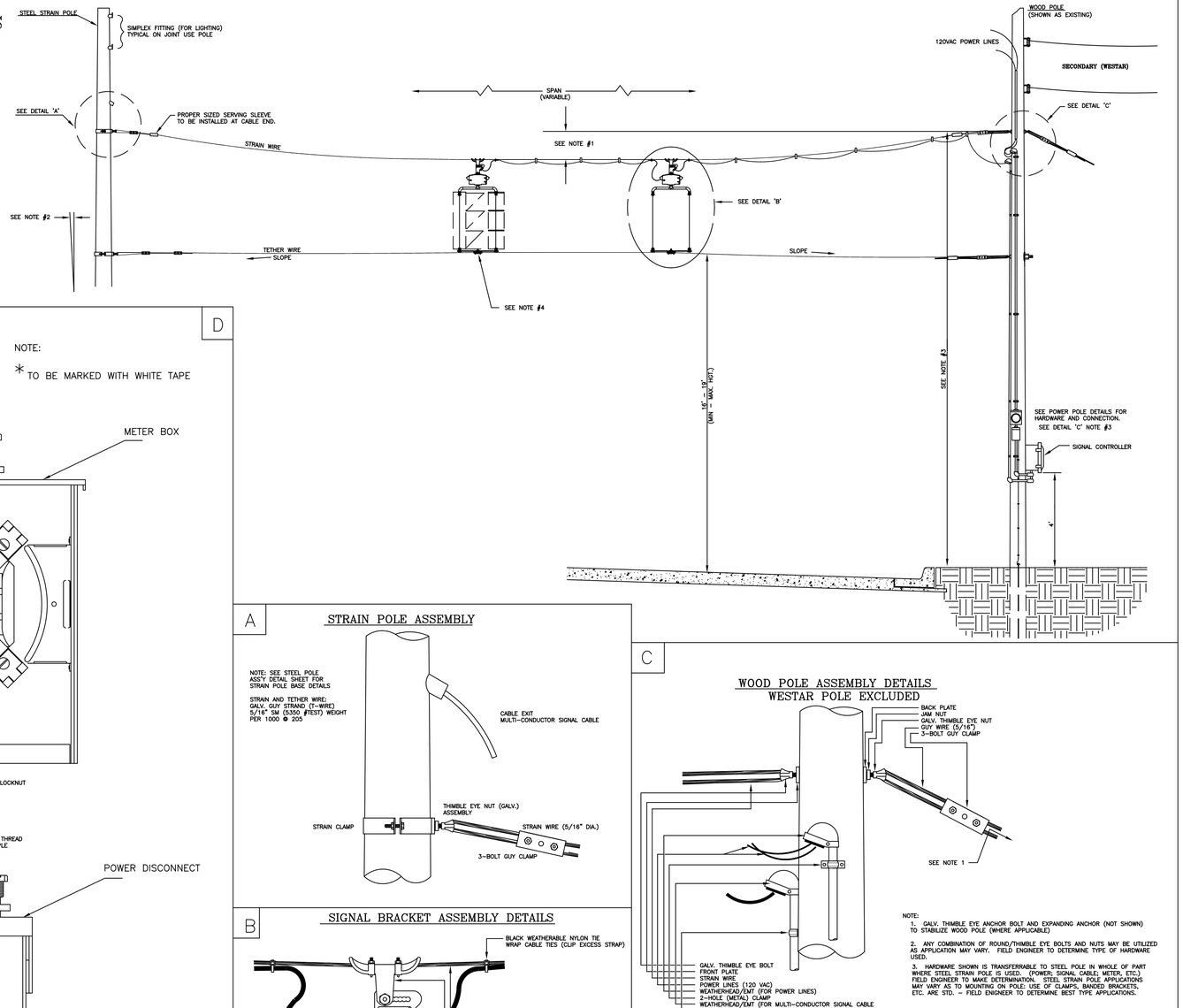
SHEET
203 of 262

POWER POLE DETAILS



SPANWIRE ASSEMBLY DETAILS

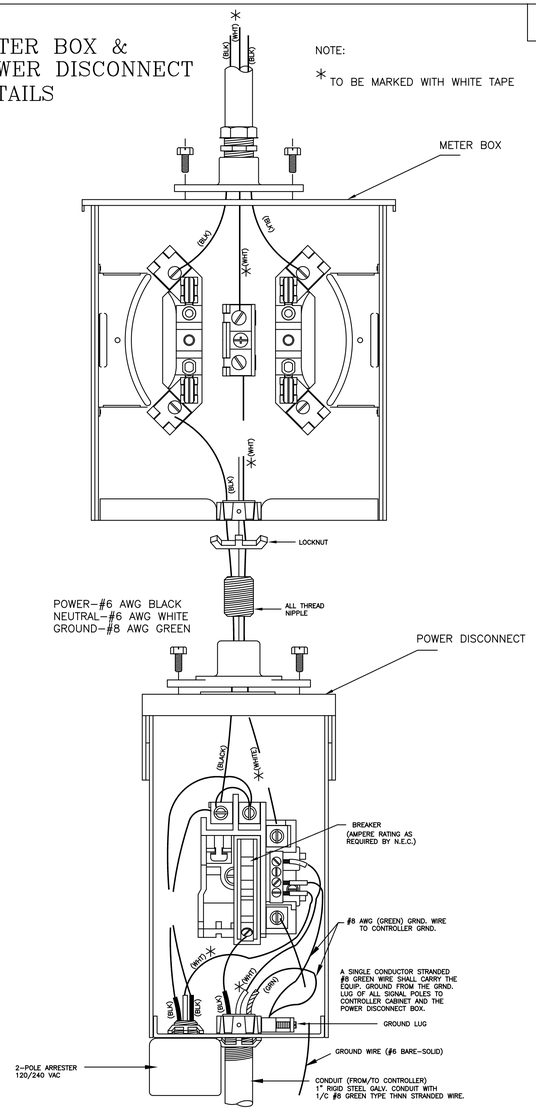
1. MAX. SAG = 5F SPAN.
2. STANDARD BACKRAKE = 1.5°
3. HEIGHT OF STRAIN WIRE HOOK-UP TO BE DETERMINED BY FIELD ENGINEER. TRAFFIC SIGNAL CABLE TO BE SECURED TO STRAIN (SPAN) WIRE WEATHERABLE NYLON CABLE HANGERS (12" CTR.) DETAIL 'B'
4. TETHER CLAMP TO BE DESIGNED TO RELEASE UNDER 'HIGH WIND LOAD' TO PERMINT SIGNAL 'FREE SWING'.



METER BOX & POWER DISCONNECT DETAILS

D

NOTE:
* TO BE MARKED WITH WHITE TAPE



A

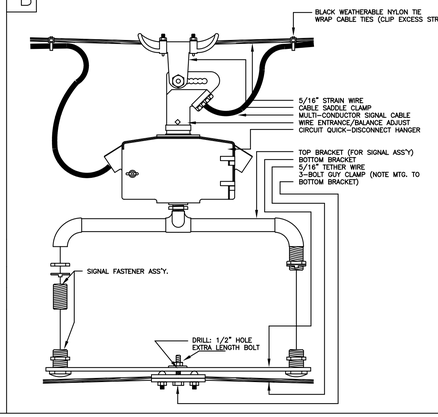
STRAIN POLE ASSEMBLY

NOTE: SEE STEEL POLE ASS'Y DETAIL SHEET FOR STRAIN POLE BASE DETAILS

STRAIN AND TETHER WIRE: GALV. GUY STRAND (T-WIRE) 5/16" SM (5350 #TEST) WEIGHT PER 1000 @ 205

B

SIGNAL BRACKET ASSEMBLY DETAILS



C

WOOD POLE ASSEMBLY DETAILS
WESTAR POLE EXCLUDED

NOTE:
1. GALV. THIMBLE EYE ANCHOR BOLT AND EXPANDING ANCHOR (NOT SHOWN) TO STABILIZE WOOD POLE (WHERE APPLICABLE)
2. ANY COMBINATION OF ROUND/THIMBLE EYE BOLTS AND NUTS MAY BE UTILIZED AS APPLICATION MAY VARY. FIELD ENGINEER TO DETERMINE TYPE OF HARDWARE USED.
3. HARDWARE SHOWN IS TRANSFERRABLE TO STEEL POLE IN WHOLE OF PART WHERE STEEL STRAIN POLE IS USED. (POWER; SIGNAL CABLE; METER, ETC.) FIELD ENGINEER TO MAKE DETERMINATION. STEEL STRAIN POLE APPLICATIONS MAY VARY AS TO MOUNTING ON POLE: USE OF CLAMPS, BANDED BRACKETS, ETC. ARE STD. - FIELD ENGINEER TO DETERMINE BEST TYPE APPLICATIONS.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

POWER POLE AND SPAN POLE ASSEMBLEY DETAILS

TRAFFIC ENGINEER
MIKE ARMOUR, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
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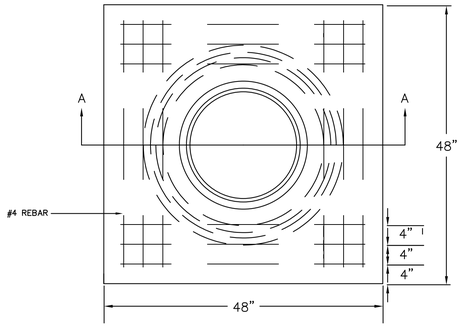
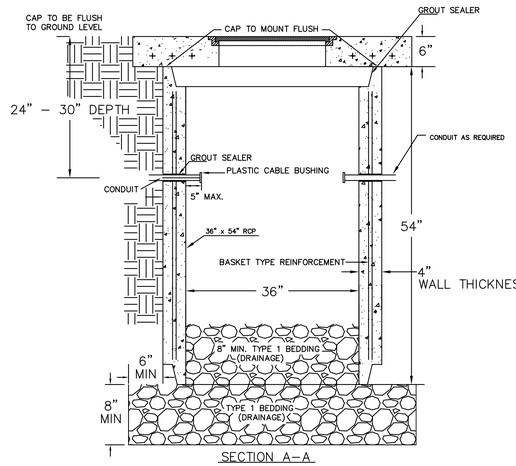
SERVICE BOX CONSTRUCTION/INSTALLATION DETAILS

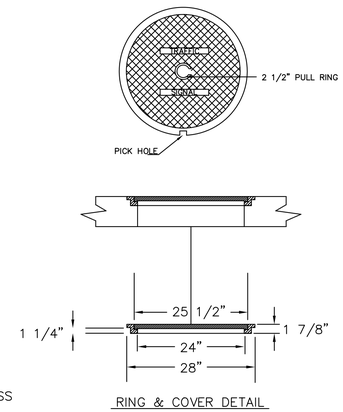


PRE-CAST CONCRETE
SERVICE BOX

(36" I.D. X 54" RCP)
with 6" CAP

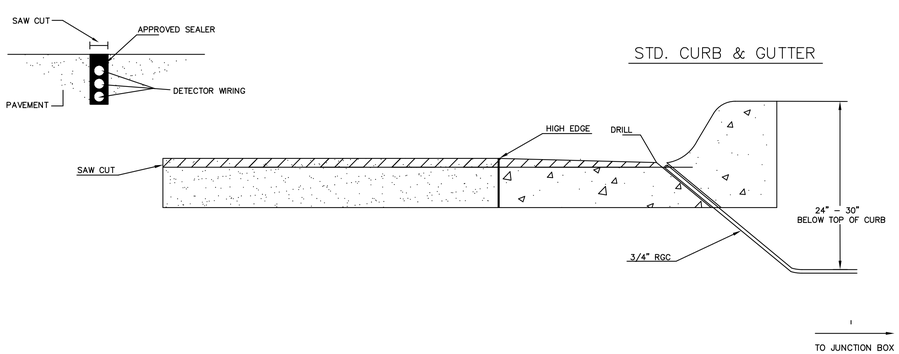


SECTION A–A

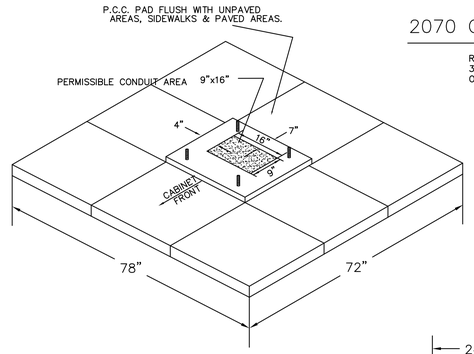


RING & COVER DETAIL

CONDUIT/DETECTOR WIRE INSTALLATION DETAILS

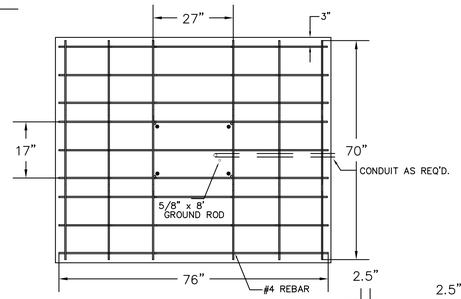


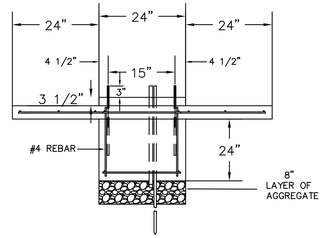
STD. CURB & GUTTER

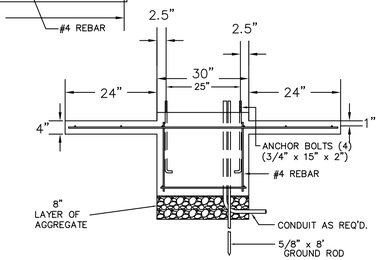


2070 CONTROLLER PAD DETAILS

REBAR SHALL BE ASTM A615M GRADE 300 MEETING THE REQUIREMENTS OF SUBSECTION SPECIFICATIONS.

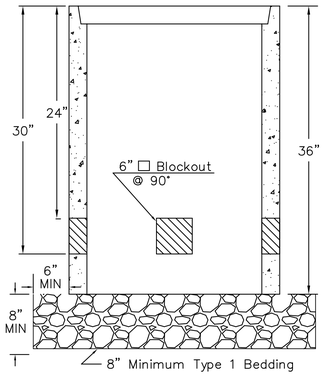




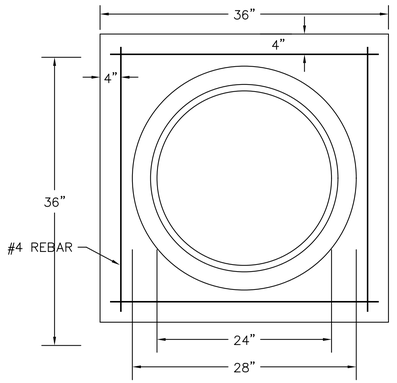


JUNCTION BOX DETAILS

PRE-FAB Junction Box
(24" I.D. X 36" R.C.P.)

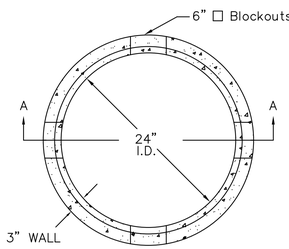


SECTION A–A



JUNCTION BOX CAP

36" x 36" x 6"
TOP OF CAP TO BE FLUSH WITH GROUND LEVEL.



** SEE SERVICE BOX INSTALLATION FOR RING & COVER DETAILS.

NOTES:

SERVICE & JUNCTION BOX:

1. CONDUIT CONNECTION TO BE FLUSH TO WITHIN 5" OF INSIDE FACE OF SIDE WALL, CONDUIT TO DRAIN INTO SERVICE BOX.
2. CONDUIT CONNECTIONS TO SERVICE BOX SHALL BE TERMINATED WITH PLASTIC CABLE BUSHING.
3. CONDUIT SHALL BE SEALED WITH APPROVED SEALER AT INSIDE WALL FACE.
4. ALL SERVICE & JUNCTION BOXES TO HAVE 8" OF CRUSHED ROCK.

No 90 degree elbows unless approved by Traffic Maintenance

TRENCHING:

1. DEPTH TO BE 30" MINIMUM WITH ROCK & STUBBLE FREE BACKFILL TO SERVE AS BEDDING MATERIAL. MAINTAIN MINIMUM CONDUIT DEPTH IN TRENCH.
2. BACKFILL TO BE COMPACTED IN 6" LOOSE LIFTS BY HAND OR MECHANICAL TAMPING TO A 95% STANDARD DENSITY.

CONDUIT:

1. SLOPE CONDUIT TO DRAIN AS DIRECTED BY THE ENGINEER.
2. 3" RIGID STEEL CONDUIT BTWN. SERVICE BOXES.
   2" " " " BTWN. SERVICE BOX AND POLE.
   1 1/4" " " BTWN. SERVICE & JUNCTION BOXES.
   3/4" " " BTWN. JUNCTION BOXES.
   3/4" " " BTWN. JUNCTION BOX & DETECTOR LOOP SAW CUT

No 90 degree elbows unless approved by Traffic Maintenance

REVISED AUGUST 2014

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SERVICE/JUNCTION BOX, CONTOLLER PAD CONSTRUCTION/INSTALLATION

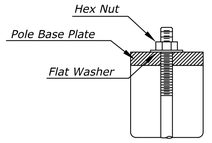
TRAFFIC ENGINEER
MIKE ARMOUR, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

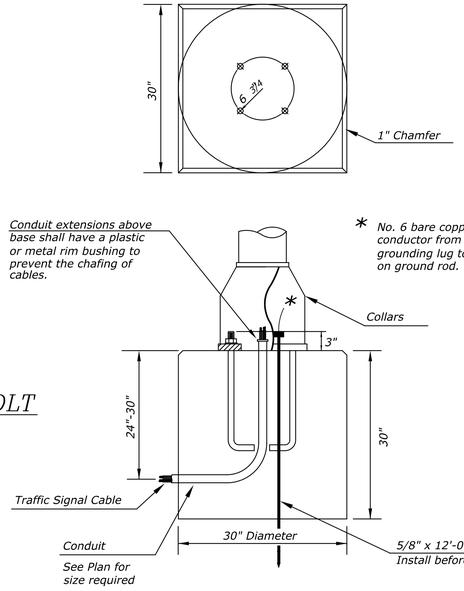
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
205 of 262

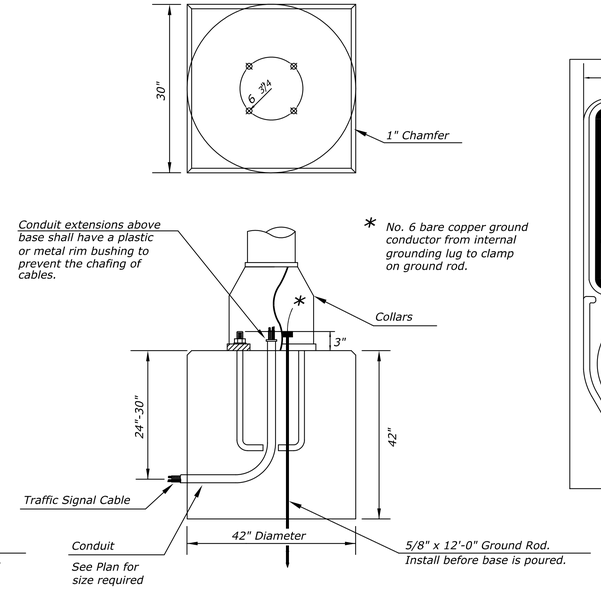
Use Keystone "No-Weld Number 1 Anti-Seize Compound" on all bolts & nuts.



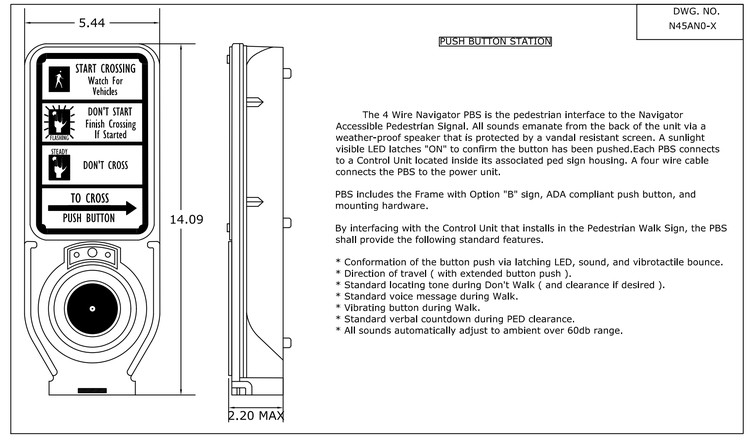
ANCHOR BOLT DETAIL



CONCRETE BASE-A DETAIL



CONCRETE BASE-B DETAIL FOR TRAFFIC SIGNAL PEDESTAL WITH CONTROLLER CABINET



DWG. NO. N45AN0-X

PUSH BUTTON STATION

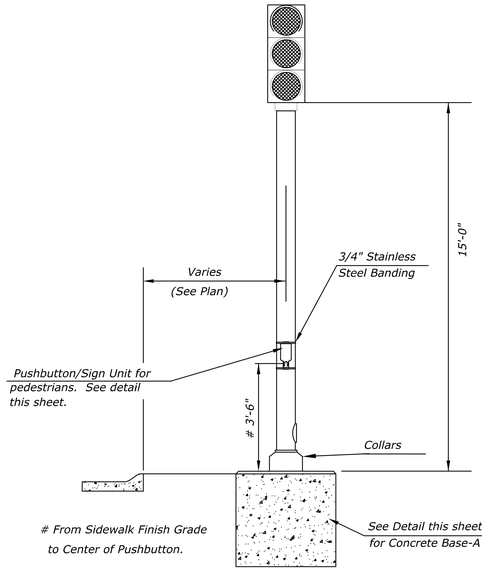
The 4 Wire Navigator PBS is the pedestrian interface to the Navigator Accessible Pedestrian Signal. All sounds emanate from the back of the unit via a weather-proof speaker that is protected by a vandal resistant screen. A sunlight visible LED latches "ON" to confirm the button has been pushed.Each PBS connects to a Control Unit located inside its associated ped sign housing. A four wire cable connects the PBS to the power unit.

PBS includes the Frame with Option "B" sign, ADA compliant push button, and mounting hardware.

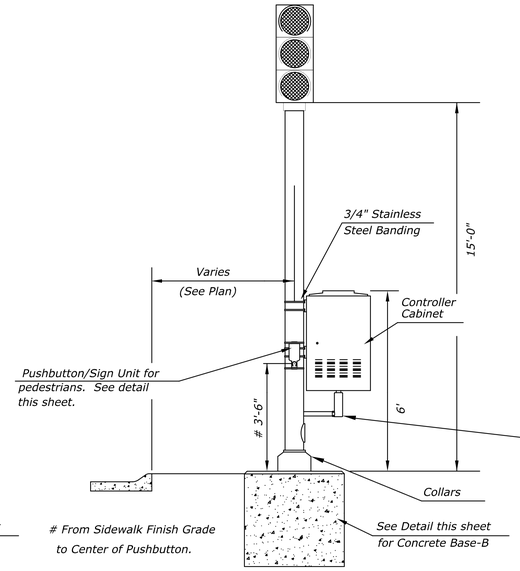
By interfacing with the Control Unit that installs in the Pedestrian Walk Sign, the PBS shall provide the following standard features.

* Conformation of the button push via latching LED, sound, and vibrotactile bounce.
* Direction of travel (with extended button push).
* Standard locating tone during Don't Walk (and clearance if desired).
* Standard voice message during Walk.
* Vibrating button during Walk.
* Standard verbal countdown during PED clearance.
* All sounds automatically adjust to ambient over 60db range.

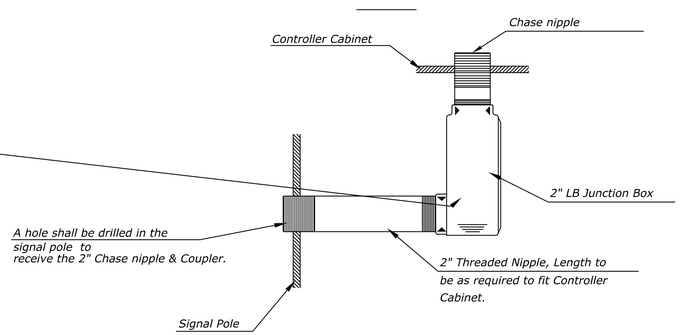
PEDESTRIAN PUSHBUTTON/SIGN UNIT DETAIL



TRAFFIC SIGNAL PEDESTAL



TRAFFIC SIGNAL PEDESTAL WITH CONTROLLER CABINET



DWG. NO. N45AN0-X

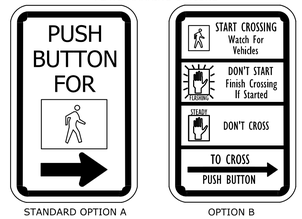
PUSH BUTTON STATION

Message and Sound options include:
* Locating tone
* Verbal Street Name (Example: Crossing Main at Central)
* All features field selectable using a Configurator.

Construction :
* Die-cast aluminum, powder coated Black in color.
* Street Name in Braille in the directional arrow of the sign.
* Option "B" signing option.

Push button :
* ADA compliant
* Raised tactile arrow on the button
* Solid State switch rated at a Minimum of 20 million actuations

PLATE MARKING OPTIONS



STANDARD OPTION A

OPTION B

REVISED: AUGUST 2014

CITY OF WICHITA

PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SIGNAL PEDESTAL & BASE WITH ADA PUSH BUTTON

TRAFFIC ENGINEER

MIKE ARMOUR, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET

GENERAL NOTES

1. CONSTRUCT & LOCATE PUSHBUTTONS IN ACCORDANCE WITH THE CURRENT PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG)

2. PLACEMENT OF THE PUSHBUTTON STATION IS CRITICAL. MOUNT THE BUTTON SO THAT THE FACE IS PARALLEL WITH THE ASSOCIATED CROSSWALK. SCREW IN SHAFT TO TIGHTENED POSITION BEFORE MOUNTING ACCESSIBLE PUSHBUTTON (APS) UNIT TO SHAFT.

3. ORIENT ACCESS OPENING ON THE BREAKAWAY PEDESTAL DIRECTLY BELOW APS PUSHBUTTON.

4. PLUMB THE PUSHBUTTON STATION WITH LEVELING SHIMS AS REQUIRED.

5. APPLY A BEAD OF 100% SILICONE SEALANT ALONG THE TOP OF THE PUSHBUTTON UNIT WHERE IT COMES IN CONTACT WITH THE 4" SHAFT.

6. USE WHITE REFLECTIVE SHEETING IF STATION IS LOCATED ON INTERSECTION CORNERS & YELLOW REFLECTIVE SHEETING IN CENTER MEDIANS. 3" RETRO-REFLECTIVE SHEETING SHALL MEET ASTM D-4956 TYPE IX SHEETING SPECIFICATIONS.

7. THE PUSHBUTTON STATION FOUNDATION SHALL BE POURED MONOLITHIC WITH THE SIDEWALK. PROVIDE A 1:2 (V:H:) SLOPE GRADE WHERE THE SIDEWALK DEPTH TRANSITIONS TO THE 12" FOUNDATION DEPTH. PROVIDE 1:2 (V:H) SLOPE GRADING 360 DEGREES FOR THE TRANSITION FROM THE SIDEWALK TO THE FOUNDATION WHEN THE FOUNDATION IS NOT LOCATED NEAR THE EDGE OF THE SIDEWALK & IS SURROUNDED BY CONCRETE SIDEWALK.

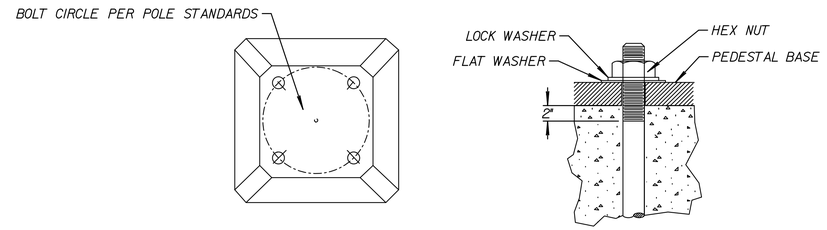
8. USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.

9. CONDUIT SHALL HAVE PLASTIC (OR METAL) BUSHING (ABOVE BASE) TO PREVENT CABLE CHAFING.

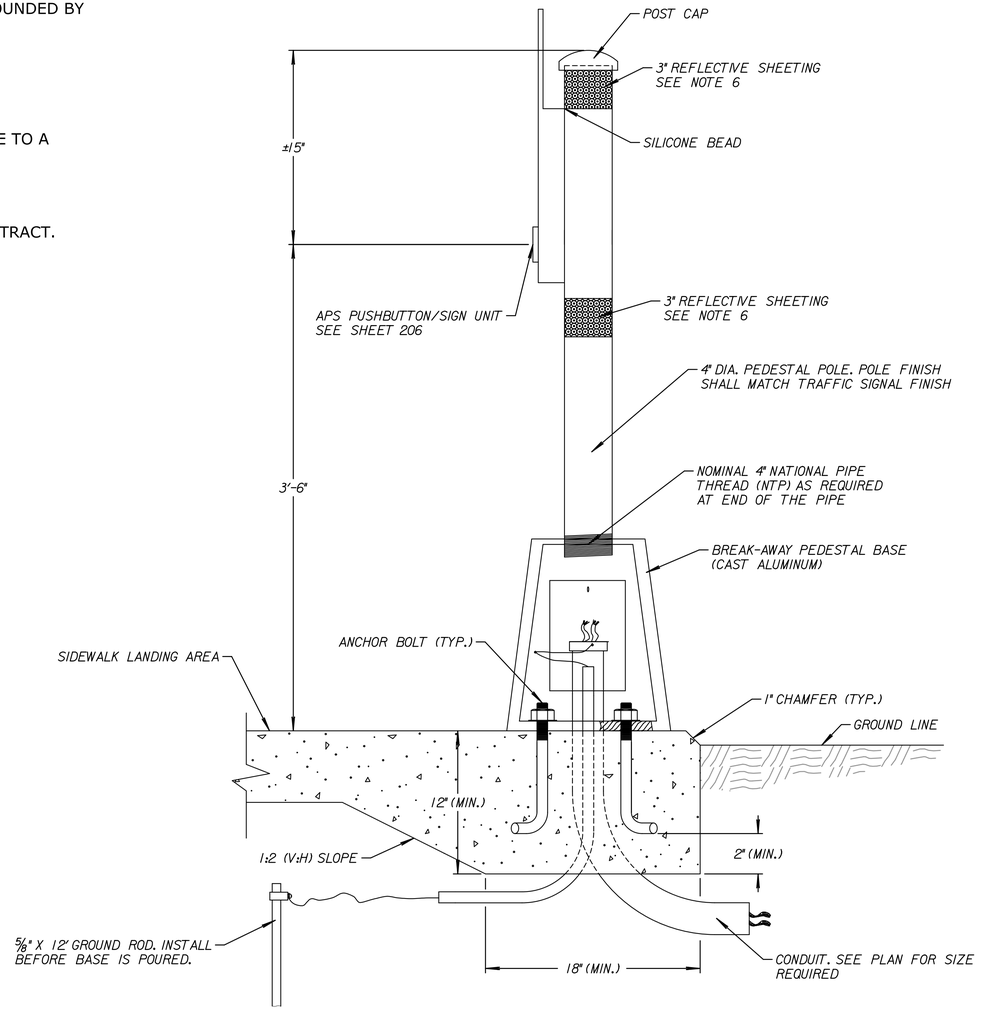
10. IN LIEU OF THE ANCHOR BOLTS PLACED DURING SIDWALK CONSTRUCTION, THE ANCHOR BOLTS MAY BE DRILLED INTO CONCRETE TO A MINIMUM DEPTH OF 6" & ANCHORED USING AN APPROVED TWO-PART EPOXY.

11. FOR APS PUSHBUTTON/SIGN UNIT DETAILS, SEE SHEET 206

12. ALL MATERIAL, LABOR & EQUIPMENT NECESSARY TO COMPLETE THIS WORK SHALL BE SUBSIDIARY TO OTHER ITEMS OF THE CONTRACT.

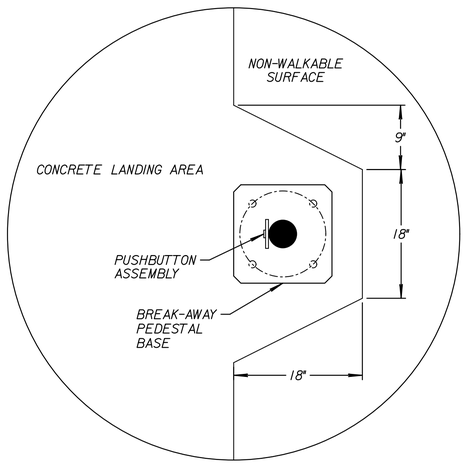


ANCHOR BOLT DETAIL

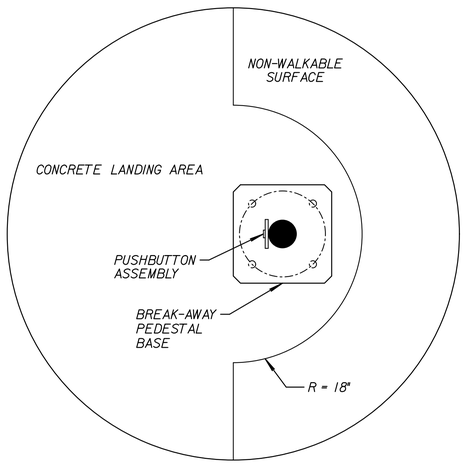


ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTON STATION

OPTION 1



OPTION 2



TYPICAL APS PEDESTRIAN PUSHBUTTON LOCATION (EDGE OF SIDEWALK)

1. CONTRACTOR SHALL USE OPTION 1 OR 2 WHEN THE APS PUSHBUTTON IS SHOWN AT THE EDGE OF SIDEWALK. OPTION USED (OR SELECTED) MUST BE THE SAME THROUGHOUT THE ENTIRE PROJECT.

2. PUSHBUTTONS SHOULD BE SEPARATED BY A DISTANCE OF AT LEAST 10 FEET.

3. PUSHBUTTON LOCATION SHALL BE BETWEEN 1.5 FEET & 10 FEET FROM THE FACE OF CURB OR EDGE OF PAVEMENT, MEASURED IN THE DIRECTION OF TRAVEL. STANDALONE PUSHBUTTON STATIONS SHALL BE 4' MINIMUM FROM THE BACK OF CURB TO AVOID KNOCKDOWNS.

4. PROVIDE A 6 FOOT MINIMUM CLEAR DISTANCE WHEREVER POSSIBLE BETWEEN A PUSHBUTTON STATION & ANY VERTICAL OBSTRUCTIONS FOR MAINTENANCE & SNOW REMOVAL PURPOSES.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: NTS
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:

APS PUSHBUTTON STATION DETAILS

SHEET NO.
207
SHEET 207 OF 262

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2/25/2020 - 1:51:14 PM - c:\transystems\cpw_local\transyscorp-pw1\mhoerner\d0519510\C-DET-SIG-502.dgn

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

CITY OF WICHITA, KANSAS
SPECIFICATIONS

TRAFFIC SIGNAL INSTALLATION

01. GENERAL

The contractor shall have a licensed journeyman electrician on site while traffic installation work is performed.

The contractor shall notify the appropriate power company prior to any service connection or attachment to determine the proper type and method of hook-up or installation. The cost of any initial hook-up charge shall be borne by the contractor. This shall include, but not be limited to, the cost of power supplied for all testing until the signal installation is accepted.

02. CONDUIT

All conductors shall be run between bases, junction boxes pull boxes, and services boxes in rigid conduit conforming to the provisions of Section 2 of these specifications. The size of the conduit used shall be of the size as shown on the plans.

The ends of all conduit shall be well reamed to removes burrs and rough edges. Field cuts shall be made square and true so that the ends will butt or come together for the full diameter thereof. Slip joints or running threads will not be permitted for coupling conduit. When a standard coupling cannot be used, an approved threaded union shall be used. The threads on all conduit shall be painted with a good quality of lead or rust preventative paint before couplings are made. All couplings shall be fitted and tightened until the end of the conduits are brought together. Where coating on conduit has been injured in handling, or installing, such injured places shall be thoroughly painted with rust preventative paint.

All conduit ends shall be threaded and capped with standard pipe caps until wiring is started. When caps are removed, the threaded ends shall be provided with approved conduit bushings.

Conduit bends, except factory bends, shall have a radius of not less than six (6) times the inside diameter of the conduit. Where factory bends are not used, conduit bends shall be made without crimping or flattening, using the longest radius practicable.

Conduit set in bases shall extend 2"to 3" vertically from
the top of the base. A plastic or metal conduit bushing shall be installed on the end of all conduit terminating within a base. Conduit shall enter through the sides of a pull box and shall leave the major portion of the box clear. Conduit entering concrete service and junction boxes shall not extend more than 5" inside of service or junction box as measured along the longitudinal axis of the conduit. Conduit entering service boxes shall be at least 8"
above the crushed rock bottom of the service hole. Conduit should be sloped to drain as directed by the Engineer. At all outlets, conduits shall enter from the direction of the run.

Wherever possible, the conduit shall be installed by trenching. Trenches shall run in straight lines between pull boxes and bases. The location of the conduit shall be as shown on the plans, except that where physical obstructions dictate, the location shall be determined by the Engineer. Conduit shall be installed to a depth of at least 600 mm below finish grade. This requirement may be waived by the Engineer where physical conditions or obstructions warrant.

Trenches shall be backfilled with material free of rock and compacted in lifts by hand tamping or with mechanical tampers to the density noted on the plans. If a density is not specified on the plans, trench backfill shall be compacted until, in the opinion of the Engineer, no significant future settlement will occur.

Existing underground conduit to be incorporated into a new system shall be cleaned with a mandrel and blown out with compressor air.

Conduit runs shown on the plans are for bidding purposes only, and may be changed with permission of the Engineer to avoid underground obstructions.

Conduit placed under existing pavement or sidewalk shall be installed by an approved jacking or drilling method. The existing pavement shall not be disturbed unless otherwise noted on the plans or approved by the Engineer. Excessive use of water such that the pavement might be undermined, or the subgrade softened, will not be permitted.

03. CONCRETE BASE FOR POLES AND CONTROLLER CABINET

Bases for poles and cabinets shall be reinforced concrete as detailed on the plans. The reinforcing bars shall be free of rust and dirt and shall be of the size, number and dimensions shown on the plans.

Anchor bolts shall extend uniformly above the finish grade of the concrete base a height equal to the manufacturer's recommendations (leaving at least three threads exposed when secured).

The anchor bolt sizes for the pole bases are to be standardized as follows:

1. Mast arm lengths 16' through 34'
   4 each, 1 1/8" Dia. x 54" long x 6" hook
   Bolt Circle = 16"

2. Mast arm lengths 40' through 56'
   4 each, 1 3/4" Dia. x 84" long x 6" hook
   Bolt Circle = 20"

The contractor shall design an anchor bolt assembly which shall be welded to the rebar cage and the resulting unit inserted in the form for the concrete base. The unit shall be designed and constructed such that, after insertion in the form, it can be checked for proper orientation, elevation and verticality. "Stabbing" of anchor bolts or ground rods will not be permitted.

The location of the bases shall be as shown on the plans. Any variation from the plan location shall be only with the approval of the Engineer.

Steel traffic signal pole bases shall be constructed in two pours. The initial concrete placement shall end 6" below finish grade. A 6" thick,
36" square concrete cap shall be poured when the pole has been erected, plumbed, and approved by the Engineer. The top of the base shall be slightly (15/64" to 15/32") higher than the adjacent curb and gutter, or finish grade if no curb and gutter. Aluminum pedestal bases shall be constructed in one pour as detailed on the plans.

04. WIRING

Wiring shall conform to the appropriate articles of the National Electric Code or subsequent revisions. The conductors from the terminal block in the controller to the signal base shall be a continuous run. No splices of cable will be permitted in conduit or outside of junction boxes, service boxes or pole bases unless otherwise specified in the supplemental specifications, special provisions, or on the plans for an overhead wiring system. All signal cable splices shall be made above ground in pole or pedestal bases.

When conductors and cables are pulled into the conduit, all ends shall be taped to exclude moisture, and shall be so kept until the splices are made or terminal appliances attached. Ends of spare conductors shall remain taped.

When pulling conductors through conduits, a powdered soapstone, talc or other approved lubricant shall be used. Cable shall not be taped or bundled together to be to be pulled or left in conduit.

80" of slack or excess cable, as applicable, shall be left in each service box for traffic signal cable, and detector lead-in wire.

40" of slack or excess cable shall be left in each junction box and at each termination point.

Excess cable to be uniformly bundled and secured with threaded stud, as close as possible to top of service boxes and junction boxes.

A. Splices

1. Signal conductor cable – Conductors shall be joined by twisting the conductors. Conductor insulation shall be penciled, trimmed to conical shape, before applying splice insulation. Splice insulation shall consist of layers of thermoplastic or neoprene insulation electrical tape bearing the label of the Underwriters Laboratories, Inc., applied to a thickness equal to and well lapped over the original insulation, except that on high voltage splices two layers of rubber tape conforming to the requirements at A.S.T.M. designation: D 119 shall be applied over the conductor before placing the thermoplastic tape. The splice shall then be well covered with two layers of friction or other approved tape. At least 40" of slack shall be left for each cable splice in pedestal and pole bases.

2. When terminating ends of cable at all terminal blocks an approved #14 insulated spade terminal shall be properly crimped on end of each conductor to provide a secure connection.

3. Locking spade terminals shall not be used.

B. Wiring Notes

1. The Contractor shall furnish and install all loop wire, shielded loop lead-in wire, power supply cable and traffic signal cable for the complete operation of the traffic signal.

2. One seven conductor cable shall be run from the controller to each signal pole for pedestrian movement. The following color codes shall be used:

Red	Don't Walk (Phase 2 or 6)
Green	Walk (Phase 2 or 6)
Orange	Push Button (Phase 2 or 6)
White w/Black	Don't Walk (Phase 4 or 8)
Blue	Walk (Phase 4 or 8)
Black	Push Button (Phase 4 or 8)
White	Common

3. One five conductor cable shall be run from the pole base to each 3-section signal head. The following color codes shall be used:

Black	Not Used
White	Common
Red	Red Ball
Green	Green Ball
Orange	Yellow Ball

4. One seven conductor cable per conflicting movement shall be run from the controller to each signal pole. The following color codes shall be used:

White	Common
Red	Red Ball
Green	Green Ball
Orange	Yellow Ball
Blue	Green Arrow
Black	Yellow Arrow
White w/Black	Street Name Sign (where applicable)

5. Each signal head mounted on a signal pole or mast arm shall have one continuous multi-conductor cable run from the pole base to the signal head. A five-section signal head (left turn signal) shall have a seven conductor cable. A three-section signal head (through movement) shall have a five conductor cable; Pedestrian signal heads shall have a five conductor cable; Each push-button shall have a two conductor cable.

6. A single conductor stranded No. 8 green wire shall carry the equipment ground from the grounding lug of all signal poles to the controller cabinet and the power disconnect box.

7. One five conductor cable shall be run from the pole base to pedestrian signal head. The following color codes shall be used:

White	Common (All Phases)
Red	Don't Walk (Phase 2 or 6)
Green	Walk (Phase 2 or 6)
Orange	Don't Walk (Phase 4 or 8)
Black	Walk (Phase 4 or 8)

8. Identify cable runs in cabinet.

05. 332 CABINET WIRING AND CABLE IDENTIFICATION

The following is the standard City of Wichita specifications for wiring and labeling cables in a 332 cabinet and shall be closely followed, any deviation from these specifications must be approved by the Engineer or his representative:

A. Cabinet Wiring

1. All cables shall have adequate excess cable at their termintions so there is no tension on the conductors.

   (a) Traffic signal cables shall be 60" in length and stripped back 40".

   (b) Pedestrian signal cables shall be the same as the signal cables except the push button conductors shall be 100" in length to reach the proper terminal point without the use of a butt splice.

   (c) Detector feeder cable shall be 100" in length and stripped back 8".

2. The cables shall be formed in such a manner so that any access panels can be lowered without interference.

3. There shall not be any use of tape on the stripped out conductors.

4. Nylon-cable ties shall not be used on any field cables except those used for identification.

5. The drain wire of each detector feeder shall be covered with a tube type covering (i.e., shrink tube) not more than three (3) times the diameter of the wire.

6. All cable fillers shall be removed from stripped back cable.

7. Each conductor shall be separately terminated with a non-locking, insulated block fork terminal of the appropriate size.

8. All conduits entering the cabinet base shall be closed with an approved duct seal.

9. All excess cable shall be neatly formed in the bottom of the cabinet.

10. All cables terminating at the input files shall be run in the provided pan ducts.

11. All traffic and pedestrian signal cables, also detector feeders, shall be permanently and legibly identified by the use of Nylon Identification Cable Ties. Traffic signal and pedestrian signal cables shall have a marking pad size of 1/2" x 3/4" (i.e., TY-RAP #TY546M). Detector feeders shall have a marking pad size of 1" x 5/16" (i.e., TYP-RAP #TY551M). The legends shall be made with a permanent type marking pen.

    The following legends shall be used:

    (a) Traffic signal and pedestrian signal cables

    "NW Sigs." = Traffic signal cable to NW corner
    "NW Peds." = Pedestrian signal cable to NW corner

    "NE Sigs." = Traffic signal cable to NE corner
    "NE Peds." = Pedestrian signal cable to NE corner

    "SW Sigs." = Traffic signal cable to SW corner
    "SW Peds." = Pedestrian signal cable to SW corner

    "SE Sigs." = Traffic signal cable to SE corner
    "SE Peds." = Pedestrian signal cable to SE corner

    (b) Detector Feeders

    "WBLT" = Phase 1 Westbound Left Turn Loop
    "EB FAR" = Phase 2 Eastbound Far Advance Loop
    "EB MID" = Phase 2 Eastbound Middle Advance Loop
    "EB CLOSE" = Phase 2 Eastbound Close Loop
    "EB RT. LN." = Phase 2 Eastbound Right Lane Loop (If Applicable)
    "EB LT. LN." = Phase 2 Eastbound Left Lane Loop (If Applicable)
    "SBLT" = Phase 3 Southbound Left Turn Loop
    "NB FAR" = Phase 4 Northbound Far Advance Loop
    "NB MID" = Phase 4 Northbound Middle Advance Loop
    "NB CLOSE" = Phase 4 Northbound Close Loop
    "NB RT. LN." = Phase 4 Northbound Right Lane Loop (If Applicable)
    "NB LT. LN." = Phase 4 Nothbound Left Lane Loop (If Applicable)
    "EBLT" = Phase 5 Eastbound Left Turn
    "WB FAR" = Phase 6 Westbound Far Advance Loop
    "WB MID" = Phase 6 Westbound Middle Advance Loop
    "WB CLOSE" = Phase 6 Westbound Close Loop
    "WB RT. LN." = Phase 6 Westbound Right Lane Loop (If Applicable)
    "WB LT. LN." = Phase 6 Westbound Left Lane Loop (If Applicable)
    "NBLT" = Phase 7 Northbound Left Turn Loop
    "SB FAR" = Phase 8 Southbound Far Advance Loop
    "SB MID" = Phase 8 Southbound Middle Advance Loop
    "SB CLOSE" = Phase 8 Southbound Close Loop
    "SB RT. LN." = Phase 8 Southbound Right Lane Loop (If Applicable)
    "SB LT. LN." = Phase 8 Southbound Left Lane Loop (If Applicable)

12. The traffic signal and pedestrian signal field wires shall terminate at the following locations in all 332 cabinets:

    WBLT – RED 125, YELLOW 126, GREEN 127
    EB SIGS. – RED 128, YELLOW 129, GREEN 130
    EB PEDS. – DW 113, WALK 115
    SBLT – RED 116, YELLOW 117, GREEN 118
    NB SIGS. – RED 101, YELLOW 102, GREEN 103
    NB PEDS. – DW 104, WALK 106
    EBLT – RED 131, YELLOW 132, GREEN 133
    WB SIGS. – RED 134, YELLOW 135, GREEN 136
    WB PEDS. – DW 119, WALK 121
    NBLT – RED 122, YELLOW 123, GREEN 124
    SB SIGS. – RED 107, YELLOW 108, GREEN 109
    SB PEDS. – DW 110, WALK 112

13. The detector feeders and the pedestrian pushbutton field wires shall terminate at the following locations in all 332 cabinets:

    a. Detector Feeders

    WBLT – I-1-DE
    EB FAR ADV – I-2-DE
    EB MID ADV – I-2-JK
    EB CLOSE – I-3-DE
    SBLT – I-5-DE
    NB FAR – I-6-DE
    NB MID – I-6-JK
    NB CLOSE – I-7-DE
    EBLT – J-1-DE
    WB FAR – J-2-DE
    WB MID – J-2-JK
    WB CLOSE – J-3-DE
    NBLT – J-5-DE
    SB FAR – J-6-DE
    SB MID – J-6-JK
    SB CLOSE – J-7-DE

    All drain wires to terminate at terminal L of the corresponding slot.

    b. Pedestrian Pushbuttons

    EB PEDS. – I-12-D
    NB PEDS. – I-12-J
    WB PEDS. – I-13-D
    SB PEDS. – I-13-J

14. If any additional loop or field wire terminations are necessary, their location will be determined by the Engineer or his representative.

06. MAST ARM AND POLE BASE CABLE IDENTIFICATION

The following is the specification for identifying all cables used in the complete operation of the traffic signals which are located in mast arms and pole bases.

The through traffic and pedestrian signal cables shall be legibly identified with the use of Nylon Identification Cable Ties. The marking pad size shall be 15/32" x 7/8" (i.e., TY-RAP #TY546M). The legend shall be made with a permanent-type marking pen.

The pushbutton cables shall be legibly identified with the use of Nylon Identification Cable Ties. The marking pad size shall be 1" x 5/16" (i.e., TY-RAP #TY551M). The legends shall be made with a permanent-type marking pen.

A. Mast Arm Traffic and Pedestrian Signal Cable Legends

1. Mast Arm Signal Cables

   "Lt. Turn Sig." – Left Turn Signal
   "Out Bd. Sig." – Farthest Through Traffic Signal from Pole
   "Center Sig." – Next Farthest Through Traffic Signal from Pole (If Applicable)
   "In Bd. Sig." – Closest Thru Traffic Signal to Pole
   "SOP Sig." – Side of Pole Through Traffic Signal

2. Pole Mounted Pedestrian Signals and Pushbuttons

   "Ped. Sig." – Pedestrian Signal
   "Ph.2 P.B." – All Phase 2 Pushbuttons
   "Ph.4 P.B." – All Phase 4 Pushbuttons
   "Ph.6 P.B." – All Phase 6 Pushbuttons
   "Ph.8 P.B." – All Phase 8 Pushbuttons

07. TRAFFIC SIGNAL HEADS

Traffic signal heads mounted on the side of poles or on pedestals shall be 10' from the ground to the bottom of the signal head.

Type II side-of-pole pedestrian signal bracket to be mounted on back side of pole 135° clockwise from mast arm.

Traffic signal heads mounted on mast arms or span wire shall be no less than 15' and no more than 19' from the pavement to the bottom of the signal head. In some instances the Engineer may require the signal to be mounted above 15' for better visibility. Under no circumstances shall the bottom of the signal be more than 7/32" above the pavement.

The Engineer shall direct the final positioning of the signal heads. Signal heads shall not be installed at any intersection until all other signal equipment, including the controller, is in place and ready for operation at that intersection, except that the signal heads may be mounted if the faces are not directed toward traffic or if the faces are covered.

08. POLE INSTALLATION

When installed, the traffic signal poles shall be back raked according to the manufacturer's recommendation to allow for deflection, such that the pole will be plumb when loaded.

09. LOOP DETECTOR INSTALLATION

The field loop conductor installed in the pavement shall run continuously from the terminating service box, junction box, or base with no splices permitted. The field loop conductors shall be spliced to the lead-in cable and the lead-in cable shall run continuously from the terminating service box, junction box, or base to the sensing unit, except on multiple loop installations where additional loop conductors may be spliced to the lead-in cable as directed by the Engineer.

All lengths of loop wires that are not embedded in the pavement shall be twisted with at least six (6) turns per meter, including lengths in conduits and hand-holes.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	208	262

All lengths of loop wires that are not embedded in the pavement shall be twisted with at least six (6) turns per meter, including lengths in conduits and hand-holes.

The electrical splice between the loop lead-in cable to the controller and the loop wire shall be made by the following method:

1. Remove all lead-in cable coverings and ground wire, leaving 4" of insulated wire exposed.

2. Remove the insulation from each conductor of the lead-in cable and scrape both copper conductors with knife until bright.

3. Remove appropriate length of insulation from the ends of the loop wires and scrape both copper conductors with knife until bright.

4. Conductors shall be joined by using a #14 butt splice. The two splices shall be staggered to provide adequate insulation. Each splice shall be insulated with layers of thermoplastic or neoprene insulation electrical tape bearing the label of the Underwriters Laboratories, Inc., applied to a thickness equal to and well looped over the original insulation.

The two splices shall then be over-wrapped with layers of thermoplastic or neoprene insulation as above and then coated thoroughly with a water proof electrical coating.

The location of each loop shall be marked on the pavement with crayon or spray paint. The contractor shall obtain the approval of the Engineer prior to cutting the saw slots.

The saw shall be equipped with a depth gauge and horizontal guide to assure proper depth and alignment of the slot. The blade used for the saw cut shall provide a clean, straight, well-defined 1/4" wide saw cut without damage to adjacent areas. The depth of the saw cut shall be 3 1/2" deep. Where the loop changes direction, the saw cuts shall be overlapped to provide full depth at all corners. Right angle or corners less than 90° shall not be used.

Before installing the loop wire, the saw cuts shall be checked for the presence of jagged edges or protrusions. Should these exist, they must be removed. The slots must be cleaned and dried to remove cutting dust, grit, oil, moisture or other contaminants. Cleaning shall be achieved by flushing clean with a stream of water, and following this, the slots should be cleared of water and dried using oil-free compressed air.

Loop detector conductor shall be installed using a 1/8" to 3/16"-thick wood paddle.

Each loop shall be coiled clockwise (or per manufacturer's recommended practice) and the beginning conductor banded in the terminating handhole or base with a symbol "S" to denote start of conductor. Each loop shall be further identified by phase or function as shown on the project plans, with durable tags, or as directed by the Engineer.

Each loop spliced to lead-in cable, checked at control cabinet, shall not measure less than 100 megohms to ground.

Contractor to supply City of Wichita with a typed record of loop inductance and resistance to ground of each loop measured at cabinet. Provide the date each loop was checked.

10. COMMUNICATIONS CABLE

A. Cable

Cable used for intersection communication shall be six pair #19 AWG shielded cable conforming to the requirements of Specification 20-2 of the IMSA. Shielding shall also conform to IMSA Specifications.

B. Splices General

Communications cable splices shall be made at the communications terminal block within the signal controller cabinet whenever possible. Other necessary cable splices shall be made only with approval of the project engineer in the manner dictated below.

C. Underground Splices

Underground communications cable splices shall be made only within service boxes or utility manholes using an approved waterproof, re-enterable splice kit with multiple port and caps if necessary. The splices shall be staggered heat shrinkable insulated butt splices. The splice kits shall be filled with an approved non-hardening, waterproof encapsulant
The enclosure shall be transparent and capable of being racked in the service box or manhole immediately after filling with encapsulant. The contractor shall rack all splice kits after filling with encapsulant.

D. Aerial Splices

Aerial splices shall be made using a terminal block.

NO.	DATE:	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC TRANSPORTATION

TRAFFIC SIGNAL SPECIFICATION

AMERICAN STANDARD

FHWA APPROVAL	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	
DESIGN CK.	DETAIL CK.	QUAN. CK.	DATE:

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	209	262

E. Shield Grounding

Communications cable shielding shall be grounded at one point only – at the control center in City Hall for CBD zones and at the on-street master cabinet for non-CBD zones. Shielding at all splice points (aerial, underground or at the controller cabinet) shall be connected together using shield connectors and a #14 THNN stranded, white insulated wire with a ring tongue connector on each end as a bonding jumper between the shield connectors. Proper insulation shall be used on all bare parts of the bonding system to prevent contact with the messenger cable or other metal parts in the closure.

F. Testing

A continuity test and an insulation resistance test of each communications pair (including spares) will be conducted in the presence of the project engineer or his representative. During the tests, all transient suppression devices shall be disconnected. If any test fails, repairs shall be made by the contractor and the entire test for that cable circuit shall be repeated.

G. Continuity Test

The continuity test shall be made between a point upstream of where the new communications cable is spliced to the existing cable and each new field termination point. Each conductor in a pair shall show a resistance of not more than 10 ohms per 300 m of AWG #19 conductors. The resistance shall be measured with a meter having a minimum resistance of 20,000 ohms/volt. Contractor to supply City of Wichita with a typed record of the resistance of each paired conductor.

H. Insulation Resistance Test

The insulation resistance test shall be measured with all other connections to the conductor under test removed, and all other conductors in the cable and the shield grounded. The measurement shall be made with a direct current potential of not less than 360 volts nor more than 550 volts applied for one minute. Insulation resistance shall exceed 3,000 megohm-km. The contractor to supply City of Wichita with typed record of the resistance of each conductor.

11. MESSENGER CABLE

Where shown in the plans, the messenger cable shall be used to support all overhead communications and detector lead-in cable. The messenger cable shall be 5/16" in diameter and shall include devices such as rings or spiral slashing used to attach the cable, and shall run from struture to structure without splicing. Prior to erecting messenger cable, the contractor shall determine the length of the strand required to span the distance between the poles indicated on the drawings, allowing a sufficient additional length of span wire to compensate for sag.

No messenger cables shall be erected which would lie on, or are liable to run on, a utility company wire or cable, tree limb, etc. If a messenger cable is erected within 12" of any other cable, wire or structure, it shall be protected with plastic wire guards. The height of the messenger cable on the pole shall conform to requirements of the serving utility and the National Electrical Code, and the National Electric Safety Code.

TRAFFIC SIGNAL EQUIPMENT

01. TYPE 170 TRAFFIC SIGNAL CONTROLLER SYSTEM

Each Type 170 Traffic Signal Controller System shall meet the applicable specifications detailed in *TSCES, published by the California Business, Transportation and Housing Agency, Department of Transportation (Caltrans), Jan. 1989 edition. AS modified by TSCES, Addendem 8, Nov. 1993, as well as the additional requirements noted below.

A. Controller Unit

The Model 170 controller unit shall contain a single MPU with at least 2K of RAM memory on a separate board apart from the Input/Output logic board.

Output interface – The output interface shall consist of a minimum of 80 bits of buffered storage. Output data shall be latched at the time of writing from the MPU. This interface shall provide an NPN open collector output capable of driving up to 40 volts DC and sinking up to 100 milliamperes. A logic state one from the MPU shall be presented as a grounded collector (0 to 2 volts), and a logic state zero presented as an open circuit. Once a port is written into, the data will remain present and stable until either another port is written into it, or until the power is turned off. The state of these output ports at the time of power up or power down shall be an open circuit.

Provide adjustable AC threshold voltage indicator on power supply.

All IC's integral to controller unit shall be socket mounted.

The Model 170 controller shall include a Model 412B2 System memory module of same manufacturer as specified in Traffic Signal Control Equipment Specifications published by the California Business, Transportation and Housing Agency, Department of Transportation (Caltrans), January, 1989 edition. The specifications are available from the Caltrans Publication Unit, telephone (916) 445-3520. The Model 412 System Memory Module shall include lithium cell for backup power to retain data in the volatile RAM devices. The lithium cell shall be replaceable and switched to disconnect cell while module is not in use. Switch to be accessible without removing system memory module. The Model 412 System Memory Module to be provided with WAPITI Micro Systems W4IKS Program (latest revision) on 27256 EPROM.

B. Conflict Monitor

The Model 210 conflict monitor(s) supplied shall meet requirements outlined in Chapter 3 of the Traffic Signal Control Hardware Specifications detailed in FHWA-IP-78-16 published by the Federal Highway Administration and dated December, 1978, and the following requirements:

1. Any dark signal head (that is, loss of signal output to field terminals) shall cause the monitor to trip.

2. Any yellow time less than 2.8 seconds shall cause the monitor to trip.

3. The green, yellow and red indications for each phase shall be brought into the monitor individually and shall be monitored separately with respect to a loss of signal on any of the three inputs per channel.

4. The monitor shall have the required circuitry to allow the early detection of a conflict caused by a green or yellow signal "hang up" (that is, any green or yellow output which shall remain on when the controller has transferred to a yellow or all red output) by starting the fault timers as soon as yellow appears with the corresponding green still energized. The monitor shall not wait until a conflicting green is displayed to time the conflict. This shall preclude the presentation of a conflicting signal display at the intersection.

5. During the "all red" clearance period (if used), the monitor shall check all inputs for faulty signal display and shall react to these faulty indications during the all red clearance period. Since during this period the only inputs that should be active would be the reds, the monitor shall detect any faults such as red/green, red/yellow, green/yellow and green/red/yellow.

6. The monitor shall be capable of monitoring for incorrect signals applied at the field terminals of each vehicular movement (green, yellow, red). Should a voltage be present on more than one, or none, of the inputs (green, yellow, red) of a channel, the unit shall begin timing the duration of this condition. If this condition exists for less than 700 milliseconds, the unit shall not trigger. If this condition exists for 700 milliseconds or more, but less than 1,000 milliseconds, the unit may or may not trigger.

7. When the unit triggers, it shall cause the output relay contacts to transfer. These contacts shall remain in this state until the unit is reset by the activation of the panel control, or the activation of the external reset input. Power interruption shall not reset the conflict monitor when it has been triggered by detection of a faulty load switch output.

8. The minimum indicators shall be as follows:

a. Power – shall be illuminated when the 24VDC input from the controller is present and the AC+ is applied to the monitor.

b. Watch Dog Error – shall illuminate when the monitor detects a watch dog error.

c. Conflict – shall illuminate when a conflict has been detected by the monitor.

d. Red Failure – shall illuminate when a red failure has been detected by the monitor.

e. Switch Fail – shall illuminate when a faulty load switch has been detected by the monitor.

f. PCA – shall illuminate when the program board if not installed or is not installed properly.

g. PIAF – shall illuminate when the unit has detected a failure and then experiences a power interruption.

h. The monitor shall include signal status indicators. These indications (one per channel) shall illuminate when a proceed signal is present on the corresponding channel during normal operation. If the unit trips due to a conflict, the signal status shall lock up, displaying the status of each channel at the time the conflict occurred. Should the monitor trip due to the absence of red or a faulty load switch output, the signal status indicators shall display the channel (channels) which is (are) at fault.

i. Yellow or Sequence – shall illuminate when a short yellow time has been detected.

9. If the monitor detects a load switch fault condition, the switch failure indicator shall be illuminated and the signal status indicators will display the exact channel of the load switch that failed.

10. The red inputs shall be brought into the monitor via a front panel connector.

11. The Red Enable shall be brought into the monitor via the same front panel connector as the red inputs.

12. A Red Interface Adapter shall be wired in and tested. Red interface block to be programmable without the use of tools or the lowering of any access panels.

13. Conflict monitor to be capable of monitoring four (4) red, yellow and green outputs from the Model 420 auxiliary output file.

14. Communications software shall be compatible with W4IKS software.

C. Detectors

The Model 222 Two-Channel Loop Detector as specified in Chapter 4 FHWA-IP-78-16 shall provide for a "failsafe" continuous output in response to an open loop or open lead-in wire.

Each detector unit shall provide interface capability with 22 and 44 pin, 170-type input file.

Each detector unit shall provide sixteen sensitivity settings via thumbwheel switches.

Each detector unit shall be provided with a test switch position to verify loop system integrity. The open loop test position shall indicate a previous fault via the front panel indicator. The memory shall remain intact and can be queried repeatedly. Existing detections shall not be reset and the memory shall only be reset by removing and reinserting the detector unit.

Each detector unit shall provide for selection of delay time of 0 to 30 seconds in 2.0 second increments and/or extension time of 0 to 7 1/2 seconds in 0.5 second increments or off if no timing is desired.

Each timer (delay and extension) shall be provided with buffer circuitry to enable or disable the timer based on an external signal output. Each channel shall include an external input to gate the timing. Provide for cross-talk elimination with only one channel on at a time while scanning.

D. Controller Cabinet

The Model 332B Cabinet and Model 336A Cabinet cabinets shall meet the applicable specifications detailed in the Caltrans Specifications* as well as additional requirements that follow. The cabinets shall be unpainted natural aluminum. The output file must be capable of flashing all 8 phases red or yellow. The three-point locking mechanism shall be fabricated so that it may be actuated by rotating a removable 15 mm hex key. The hex socket and locking cam shall rotate on a 19 mm minimum diameter shaft.

The socket and shaft shall be field-replaceable with common tools. The socket head shall be protected from being rotated with a pipe wrench or similar tool. One aluminum hex wrench shall be provided with each cabinet.

The cabinet assembly shall be provided with a Power Distribution Assembly (PDA) number 2 and the circuit option (Section 6.4.3.9 of the Caltrans Specifications*).

All #8 conductors from service panel (TBS) and mercury contactor to signal bus and main equipment bus shall be 133 strand #29 AWG electronic hook-up wire.

A hybrid power line surge protection device such as the EDCO Surrestor SHA-1210 or equal shall be furnished in each controller cabinet. The protector shall be installed between the applied line voltage and earth ground. The surge protector shall be capable of reducing the effects of transient voltages aplied to the AC line. The protector shall be mounted inside the PDA#2. The Equipment Line Out shall provide filtered power to the controller, 24 VDC power supply, input file and conflict monitor through shielded cable or twisted pair to the units AC plus and AC minus inputs.

The protector shall include the following features and functions:

Maximum AC line voltage: 140 VAC.

Twenty pulses of peak current, each of which will rise in 8 microseconds and fall in 20 microseconds to one-half the peak: 20,000 Amperes.

The protector shall be provided with the following terminals:

Main line (AC Line first stage terminal).

Main Neutral (AC Neutral input terminals).

Equipment Line Out (AC Line second stage output terminal, 10 Amps.).

Equipment Neutral Out (Neutral terminal to protected equipment).

GND (Earth connection).

The Main AC line in and the Equipment Line out terminals shall be separated by a 200 Microhenry (minimum) inductor rated to handle 10 Amp AC Service.

The first stage clamp shall be between Main Line and Ground terminals.

The second stage clamp shall be between Equipment Line Out and Equipment Neutral.

Each cabinet shall be furnished with a communications terminal block, C2P harness and connector, voice jack harness, and voice jack, conforming to the requirements detailed in the Caltrans Specifications*.

TBO/Communications Termination Block – This terminal block will serve as the termination block for the communication conductors, overvoltage protection devices, and the termination points for the C2P harness and conductors. Install over voltage protection ground bus and hard wire to eqipment ground bus with #8AWG wire.

C2P Harness and Connector – A four-conductor, jacketed cable shall be attached to the terminal block with locking spade lugs. The cable shall terminate in a standard C2P connector and shall be routed through the cabinet and be of sufficient length to reach the C2S connector on the back of the 170 controller unit when the unit is installed in the equipment rack.

Voice Jack Harness – A two-conductor twisted, jacketed cable shall be attached to the terminal block with locking spade lugs. The cable shall be routed to the voice jack.

Voice Jack – A voice communications jack shall be installed with solder lugs extending out of the side of the jack housing and shall have a cover.

Each terminal on output terminal blocks to be marked as per phase function.

Jumper I 13-K to I 13-E to I 12-E to I 12-K to I 16-2.

Provide Fiberglas disposable filters in lieu of metal filters.

The input file printed circuit board must be accessible without removing or lowering panel.

The lifting eyes shall be removable.

Interchangeability of the Isolation Relay and Logic Relay shall not be possible.

Flash blocks to be accessible without lowering or opening any service panels and marked as per phase.

Red interface adapter to be programmable without tools.

Red interface adapter to be accessible without lowering or opening access panels.

Provide cable tie down (Richo #CFC C-8) or equivalent to secure red interface adapter cable to the bottom of the output file.

Anchor bolts to be provided with 332B Cabinet.

Additional Model 336A Cabinet Specifications:

The cabinet shall be a weatherproof, outdoor, pole-mounted or pedestal-mounted type with overall dimensions not to exceed 36" high by 22" wide by 20" deep. The cabinet will utilize all the standard plug-in modules that are utilized by the Type 336 Cabinets cabinets.

The bottom of all 336A cabinets shall be solid plate and be reinforced with a 22" wide by 20" deep, 3/8" aluminum base plate, continuously welded to the inside bottom of the cabinet.

Cabinets shall be attached to the pole using two aluminum mounting brackets, mounted top and bottom, for each cabinet. The brackets shall be secured to the cabinets using appropriate stainless steel mounting bolts and washers. The brackets shall be secured to the pole by appropriate banding buckles and couplings.

Door opening flange around the door opening shall be 7 1/2" wide.

Steel rails shall be provided in lieu of the rack cage for mounting of the controller and cabinet assemblies. The rail assembly shall consist of 4 EIA threaded rails bolted to the two sides at the front and rear of the cabinet. The rails shall be threaded in the same manner and pattern as the Model 332 cabinet cage. The rails shall be plated as specified in Caltrans Specifications*, Section 1.2.8.3.2.

The cabinet, if used for school signal control, shall be modified to operate flashing beacons by time-of-day, day-of-week through controller output.

E. Switch Pack

The components of the three solid state switches, enclosed in the load switch, shall be of interchangeable, modular cube design.

Cube to be mounted separate from circuit board for ease of replacement.

Housing and handle to be constructed of metal, suitably protected against corrosion.

F. Flasher Unit

Each of the two load circuits contained in the Flasher Unit shall be of interchangeable cube design.

Cube to be mounted separate from circuit board for ease of replacement.

Housing and handle to be constructed of metal, suitably protected against corrosion.

G. Zonal Master Controllers

The zonal master controller shall conform to the Type 170 specifications.

Insofar as possible, the boards from the master shall be interchangeable with those in the local 170's.

1. The zonal master 170's shall be configured with a second serial port. The second serial port shall be the same type as the primary serial port and address mapped to location 6002 (Hex) for control functions and location 6003 (Hex) for data functions. The second serial port shall be capable of operating at a clock rate of 300, 600, 1200, 2400, 4800, or 9600 baud. This selection shall be independent of the primary ACIA.

The signals from the second ACIA shall be routed to the rear panel of the 170 chassis and terminated in a 14-position connector identical to the C2 connector. This connector shall be marked C20S.

A 3' (three-foot) cable shall be provided to interconnect from the C20S connector to a standard DB25S connector on an auto dial modem.

2. All controllers shall be provided with a Model 400 Modem Module as detailed in Chapter 7 of the Caltrans Specifications*.

3. Each zonal master 170 controller unit shall be supplied with one (1) Model 412B2 System Memory Module. The module shall be provided with WAPITI Micro Systems W70SM, latest revision, software package, on 27256 EPROM.

02. AC SERVICE INPUT

Each service disconnect must be furnished with an installed lightning arrestor on the AC service input which meets or exceeds the following requirements:

A. The unit must be capable of withstanding repeated 20,000 ampere surges (minimum of 20).

B. The unit must have internal follow – current limiters (resistive elements).

C. The unit must contain three active clamping stages minimum.

D. The unit must self-extinguish within 8.3 milliseconds after the trailing edge of the surge.

E. The parallel impedance of limiters must be less than 0.15 OHMS.

F. The unit shall be UL approved.

Each service disconnect to have 70 AMP main lugs with no more than 4 circuits.

03. VEHICLE DETECTOR LOOP WIRE SEALANT

A. The saw slot filler and encapsulant shall be a one-part polyurethane, moisture curing, elastomeric compound requiring no mixing, measuring or application of heat prior to or during its installation and designed specifically for sealing and protecting vehicle detector loop wires.

B. The encapsulant is intended to provide compressive yield strength to withstand normal vehicular traffic as well as sufficient flexibility to withstand normal movement in aspholtic and concrete pavements, while protecting the loop wire from moisture penetration, fracture and shear.

C. The encapsulant shall be designed for roadway installation when surface temperature is between 5°C and 60°C and enable vehicular traffic to pass over the sawcut immediately after installation without tracking or stringing of the material. The encapsulant shall form a surface skin allowing exposure to vehicular traffic within 30 minutes at 24°C and completely cure to a tough, rubber-like consistency in two (2) to seven (7) days after installation.

D. Cured encapsulant shall exhibit resistance to effects of weather, vehicular abrasion, motor oils, gasoline, antifreeze solution, brake fluid, deicing chemicals and salt normally encountered, in such a manner that the performance of the vehicle detector loop wire is not adversely affected.

E. Filling of the sawcut shall be in accordance with the directions of the manufacturer.

04. PEDESTRIAN PUSHBUTTON ASSEMBLY

This specification is intended to provide minimum requirements for pedestrian pushbuttons that will be acceptable:

1. A one-piece cast aluminum raised sign legend with pushbutton housing.

2. Weatherproof and dustproof pedestrian pushbutton with silver contacts rated a minimum of 35 amps at 12 volts.

3. The legend "Push Button – Wait For Walk Signal" shall be cast into the face of the assembly.

4. Assembly to have 4" radius bracket mount for banding to pole.

05. AERIAL SPLICE BOX

The contractor shall furnish and install aerial enclosures for splicing overhead interconnect cable. Spliced enclosures shall be of polyethylene construction and be capable of accommodating up to a 12-pair cable. The enclosure shall provide easy access to aerial cable, while providing weather protection for the splice. No aerial splice boxes shall be installed at locations that cannot be accessed by a maintenance truck, or that require the climbing of a pole for service.

The enclosure shall have the following overall maximum exterior dimensions: 30" long, 10" high, and 4" wide. Minimum dimensions of 16" long 6" high, and 3 1/2" wide shall be provided for the interior compartment.

The enclosure cover shall be capable of easy removal for splicing the interconnect cable and easily stored for typical maintenance activity, such as replacement of interior termination blocks or cable diagnostics.

Bonding and Grounding of the splice enclosure shall be accomplished through attachment to the messenger support strand.

All communication cable conductors shall be accommodated on termination blocks each.

Cable binding posts shall be configured to allow up to three-wire conductors provided within the enclosure. The aerial enclosure shall be capable of being installed while enclosing the overhead supporting messenger strand. Once installed, the enclosed messenger strand and interconnect cable shall appear as one unit under the splice cover.

.06 TRAFFIC SIGNAL LAMPS

Lamps for vehicular and pedestrian signals shall meet the following requirements:

A. 300 mm Signals

A nominal 135 watt, 120 volt, A21 clear traffic signal lamp of 6,000 hour life rating guaranteed by the manufacturer, is to be used in all 12" vehicular and pedestrian indications. Lamps shall be 80% Krypton filled with heat reflection.

B. Candlepower

All traffic signal lamps must meet beam candlepower specification of ITE-1110(1970).

C. Mass Spectrometry Analysis

Mass Spectrometry Analysis to verify percent Krypton shall be provided with catalog cut sheets.

NO.	DATE:	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC TRANSPORTATION

TRAFFIC SIGNAL SPECIFICATION
AMERICAN STANDARD

FHWA APPROVAL	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	
DESIGN CK.	DETAIL CK.	QUAN. CK.	DATE:

SPECIFICATIONS

1.0 CONDUITS

1.1 DESCRIPTION
CONSTRUCT AND INSTALL CONDUITS AS DETAILED ON THE PLANS, AS NOTED BELOW, OR AS DIRECTED BY THE ENGINEER. CONDUIT SHALL BE BORED UNDER ALL EXISTING PAVEMENT NOT BEING REMOVED DURING ROADWAY CONSTRUCTION. PROVIDE CONDUITS OF THE TYPE AND SIZE AS SHOWN ON THE PLANS. PROVIDE ALL INCIDENTAL ITEMS NECESSARY TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL CONDUIT SYSTEM. IF APPROVED BY ENGINEER, CONDUIT MAY BE INSTALLED BY TRENCHING, PLOWING, OR DIRECTIONAL BORE; HOWEVER, PAYMENT WILL BE MADE BASED ON THE INSTALLATION METHOD INDICATED IN THE PLANS FOR THAT CONDUIT. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSTALLATION METHODS NOT INDICATED IN THE PLANS.

1.2 MATERIALS

1.2.1 NON METALLIC CONDUIT/HDPE CONDUIT
PROVIDE HDPE CONDUIT THAT IS SCHEDULE 80 AND UL LISTED. PROVIDE COLOR-CODED CONDUIT AS REQUIRED FOR INSTALLATION LOCATION. PROVIDE RED CONDUIT FOR ELECTRICAL CABLES, GREEN CONDUIT FOR COMMUNICATION AND FIBER OPTIC CABLES, AND BLACK CONDUIT FOR SPARE. INSTALL HDPE CONDUIT ACCORDING TO MANUFACTURER'S INSTRUCTION.

1.2.2 CONDUIT REPAIR SPLICES
WHEN CONDUIT IS USED TO REPAIR A SECTION OF EXISTING CONDUIT TO PROVIDE THE REQUIRED CONDUIT PATHWAY, PROVIDE THE SAME GRADE AND SIZE HDPE CONDUIT AS THE EXISTING CONDUIT. APPROVAL BY THE ENGINEER IS REQUIRED FOR MECHANICAL CONDUIT SPLICES.

1.2.3 TRACER WIRE
PROVIDE ORANGE NO. 12 AWG THHN STRANDED COPPER WIRE.

1.2.4 WARNING TAPE
PROVIDE COLOR DURABLE AND CHEMICALLY RESISTANT RED REINFORCED 3 INCH MINIMUM WIDE, 4-MIL THICKNESS WARNING TAPE IMPRINTED WITH "CAUTION BURIED CONDUIT BELOW" FOR CONDUITS. PROVIDE COLOR DURABLE AND CHEMICALLY RESISTANT ORANGE REINFORCED 3 INCH WIDE WARNING TAPE IMPRINTED WITH "CAUTION - FIBER OPTIC CABLE BURIED BELOW" FOR FIBER OPTICS.

1.2.5 PULL ROPES
PROVIDE POLYPROPYLENE PULL ROPES WITH A MINIMUM TENSILE STRENGTH OF 1,125 LBS.

1.3 CONSTRUCTION REQUIREMENTS

1.3.1 LOCATION OF CONDUIT
PRIOR TO CONSTRUCTION, FIELD CHECK THE EXISTING CONDITIONS AT EACH SITE, INCLUDING UTILITY LOCATOR SERVICE MARKINGS, TO ASSURE NO CONFLICTS WITH EXISTING UTILITIES, INCLUDING UNDERGROUND LIGHTING, TRAFFIC SIGNALS, CATHODIC PROTECTION FACILITIES, AND DRAINAGE FEATURES. UPON WRITTEN APPROVAL BY THE ENGINEER, ALTER THE ROUTE OF THE CONDUIT TO AVOID CONFLICTS. CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES EITHER PARALLEL OR PERPENDICULAR TO THE RIGHT OF WAY LINE TO THE EXTENT POSSIBLE.

UNLESS OTHERWISE SHOWN ON THE PLANS, ACCOMPLISH A CHANGE IN DIRECTION OF CONDUIT BY BENDING THE CONDUIT UNIFORMLY TO A RADIUS THAT WILL FIT THE LOCATION OR BY THE USE OF STANDARD BENDS. THE MINIMUM BENDING RADIUS OF ALL CONDUITS IS THE GREATER OF THE FOLLOWING: TWENTY (20) TIMES THE DIAMETER OF THE FIBER OPTIC CABLE; SIX (6) TIMES THE INTERNAL DIAMETER OF A 2-INCH CONDUIT OR SMALLER; TEN (10) TIMES THE INTERNAL DIAMETER OF A 3-INCH CONDUIT OR LARGER.

1.3.2 THREADING
USE NIPPLES TO ELIMINATE CUTTING AND THREADING WHERE SHORT LENGTHS OF CONDUIT ARE REQUIRED. IF IT IS NECESSARY TO CUT AND THREAD STEEL CONDUIT, NO EXPOSED THREADS WILL BE PERMITTED.

1.3.3 CLEANING
BLOW AIR THROUGH EACH CONDUIT TO REMOVE DEBRIS AND WATER. CLEAN AND SWAB ALL CONDUITS BEFORE CABLES ARE INSTALLED. INSTALL EXPANDABLE TYPE DUST PLUGS AFTER CLEANING ON EACH END OF INDIVIDUAL CONDUITS.

1.3.4 MANDREL TEST
TEST CONDUIT PATH BY PULLING A MANDREL THROUGH THE CONDUIT. THE MANDREL SHALL HAVE A DIAMETER NO LESS THAN 70% OF THE INSIDE DIAMETER OF THE CONDUIT AND A LENGTH OF 2 INCHES. IF THE CONDUIT DOES NOT ALLOW THE MANDREL TO BE PULLED THROUGH, CLEAN AND/OR REPAIR CONDUIT TO PERMIT PASSAGE OF THE MANDREL. WHEN CONDUIT RUN IS AN EXTENDED DISTANCE THE CONTRACTOR MAY SEEK ALTERNATIVE METHODS AS APPROVED BY THE ENGINEER FOR THIS TEST.

1.3.5 END TREATMENT
CUT HDPE CONDUIT INSIDE PULL BOXES AND SPLICE VAULTS AT A 90 DEGREE ANGLE WITH 8 INCHES TO 12 INCHES EXPOSED INSIDE OF THE BOX. BE AWARE THAT LONG CONDUIT PULLS (INSTALLATION) MAY STRETCH THE HDPE CONDUIT A GIVEN AMOUNT. IF THE CONDUIT IS SLIGHTLY STRETCHED DURING INSTALLATION AND PLACED AMONG SEVERAL ADJACENT BOXES DURING THE SAME CONDUIT PULL, THEN THE CONDUIT IS CUT TO PLACE THE 10 TO 12 INCHES OF EXPOSED CONDUIT INSIDE THE BOX, THE CONDUIT MAY PULL BACK INTO THE SOIL AND NOT LEAVE ANY CONDUIT EXPOSED IN THE BOX. THIS PROBLEM CAN BE AVOIDED BY PULLING FROM ONE BOX TO THE ADJACENT BOX (MINIMIZE STRETCHING), NOT PULLING THROUGH SEVERAL BOXES AT THE SAME TIME (MINIMIZE STRETCHING), AND ANTICIPATING SOME CONDUIT PULLBACK THEREFORE COMPENSATING FOR IT BY INSTALLING A SMALL AMOUNT OF EXTRA CONDUIT. CONDUIT INSTALLATION MAY BE REJECTED IF CONDUIT PULLBACK OCCURS RESULTING IN LESS THAN 10 TO 12 INCHES OF EXPOSED CONDUIT.

SAND ALL CONDUIT ENDS SMOOTH IN ORDER TO ELIMINATE ANY BURRS ON THE INSIDE OR OUTSIDE DIAMETER OF THE HDPE CONDUIT.

1.3.6 SPLICING
USE MECHANICAL SPLICES MADE IN ACCORDANCE WITH CONDUIT AND SPLICE MANUFACTURER'S RECOMMENDATIONS. FUSION CONDUIT SPLICES ARE NOT ALLOWED. SUBMIT MATERIALS TO BE USED FOR CONDUIT SPLICES TO THE ENGINEER FOR REVIEW AND APPROVAL ALONG WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION PROCEDURES.

1.3.7 EMPTY CONDUITS
CAP OR PLUG OPEN ENDS OF CONDUITS PLACED FOR FUTURE USE WITH WATER TIGHT MECHANICAL PLUGS. DO NOT CAP OR PLUG WITH TAPE. AFTER CLEANING AND TESTING HAVE BEEN COMPLETED, PLACE A PULL ROPE IN ALL EMPTY CONDUITS.

1.3.8 DEPTH
THE FOLLOWING REQUIREMENTS APPLY: A MINIMUM OF 42 INCHES OF COVER FOR ALL UNDERGROUND CONDUIT CONTAINING COMMUNICATION SERVICE; A MINIMUM OF 48 INCHES OF COVER FOR ALL UNDERGROUND CONDUIT CONTAINING ELECTRICAL SERVICE; A MINIMUM OF 5 FEET OF COVER BELOW CROWN GRADE OR 3 FEET BELOW DITCH GRADE FOR ALL UTILITIES CROSSING UNDER ROADWAYS. ENCASE CONDUIT IN CONCRETE OR OTHER APPROPRIATE MEANS AS APPROVED BY THE ENGINEER IF THIS MINIMUM CONDUIT DEPTH CANNOT BE ACHIEVED AT SITE-SPECIFIC LOCATIONS. THE ENGINEER WILL DETERMINE IF EXCEPTIONS TO MEETING THE DEPTH REQUIREMENTS ARE NECESSARY.

1.3.9 TRACER WIRE
INSTALL TRACER WIRE FOR LOCATING PURPOSES IN ALL CONDUIT CONTAINING FIBER OPTIC CABLE AND SPARE CONDUITS INTENDED FOR FUTURE FIBER OPTIC CABLES INSTALLED AS PART OF THIS PROJECT. WHEN MULTIPLE CONDUITS SHARE THE SAME TRENCH OR BORE, ONLY ONE CONDUIT WILL BE REQUIRED TO CONTAIN A TRACER WIRE. PULL TRACER WIRE INTO ALL CABINETS AND DEVICE BASES. TERMINATE TRACER WIRE INSIDE CABINETS OR DEVICE BASES. TERMINATE TRACER WIRE ON A PROTECTED TERMINAL THAT IS ISOLATED FROM THE CABINET OR BASE GROUND AND LABELED "TRACER". CONTINUOUSLY CONNECT TRACER WIRE ALONG THE FIBER BACKBONE. DO NOT CONTINUOUSLY CONNECT THE TRACER WIRE IN CONDUIT CONTAINING FIBER SPURS THAT BRANCH OUT TO THE INDIVIDUAL CONTROLLER CABINETS. FOR ALL CONDUIT CARRYING FIBER SPURS, THE CENTRAL POINT IN WHICH ALL TRACER WIRES ARE ELECTRICALLY BONDED TO EACH OTHER AT AN ISOLATED TERMINAL IS THE CONTROLLER CABINET. DO NOT ELECTRICALLY BOND TRACER WIRES TO ANY GROUND WIRE. USE CONNECTORS APPROVED BY THE ENGINEER IN A SPLICE VAULT TO ELECTRICALLY BOND THE TRACER WIRES WHEN CONTINUOUS RUNS OF TRACER WIRE CANNOT BE INSTALLED.
INSULATE THESE CONNECTORS. LABEL ALL TRACER WIRES ENDING IN A SPLICE VAULT "TRACER".

1.3.10 WARNING TAPE
INSTALL WARNING TAPE 12" ABOVE THE TOP OF ELECTRICAL, FIBER OPTIC, AND COMMUNICATIONS CONDUITS, OR AS DIRECTED BY THE ENGINEER.

1.3.11 CONDUIT IN TRENCH
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.

1.3.12 BORED CONDUIT
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.

1.3.13 PLOWED CONDUIT
CONDUITS MAY BE INSTALLED BY PLOWING UPON APPROVAL OF THE ENGINEER. USE A VIBRATORY TYPE PLOW WHICH WILL PLACE CONDUITS AT THE MINIMUM DEPTHS INDICATED ABOVE WHEN INSTALLATION IS ACCOMPLISHED BY PLOWING. COMPACT THE SOIL OVER THE INSTALLATION TO THE ORIGINAL IN-PLACE DENSITY. DO NOT PLOW CONDUITS IN ROCKY AREAS.

2.0 PULL BOXES, SERVICE BOXES, SPLICE VAULTS, AND JUNCTION BOXES

2.1 DESCRIPTION
CONSTRUCT AND INSTALL ALL BOXES AND FIBER OPTIC SPLICE VAULTS PROVIDED FOR IN THIS CONTRACT AS DETAILED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER. INSTALL BOXES AND SPLICE VAULTS ACCORDING TO THE LOCATIONS, LINES, GRADES, AND DETAILS SHOWN ON THE PLANS. LOCATIONS MAY BE ADJUSTED DURING INSTALLATION TO CLEAR OBSTRUCTIONS AND TO FACILITATE WIRING AS APPROVED BY THE ENGINEER. THE QUANTITY OF BOXES AND SPLICE VAULTS AS SHOWN IN THE PLANS MAY NOT BE REDUCED WITHOUT THE ENGINEER'S APPROVAL. INSTALL ADDITIONAL BOXES AND SPLICE VAULTS AT CONTRACTOR'S EXPENSE AND WITH ENGINEER'S APPROVAL TO FACILITATE THE EASE OF CONSTRUCTION AND PULLING OF ELECTRICAL CONDUCTORS AND FIBER OPTIC CABLES.

GENERAL NOTES

1. ALL WORK WILL BE CONFINED WITHIN THE EXISTING ROADWAY RIGHT-OF-WAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND KEEP INSTALLATION OF ALL EQUIPMENT AND DEVICES WITHIN THE EXISTING ROADWAY RIGHT-OF-WAY.
2. CONTRACTOR SHALL MAINTAIN 2 FT CONDUIT CLEARANCE FROM ALL LANDSCAPED FEATURES AND IRRIGATION SYSTEMS EXISTING WITHIN THE RIGHT-OF-WAY. ANY LANDSCAPING OR IRRIGATION SYSTEMS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITION. NO ADDITIONAL PAYMENT WILL BE MADE.
3. THE CITY OF WICHITA SURVEYORS WILL STAKE LOCATIONS WHERE BOXES, AND SPLICE VAULTS ARE TO BE INSTALLED. APPROVED STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY EXCAVATION.
4. PLACEMENT OF ALL BOXES AND VAULTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION AND BEFORE SURVEYORS LEAVE EACH SITE. ORIENTATION OF ALL CABINETS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. ANY RESTAKING NECESSITATED BY ADJUSTMENT IS CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
5. CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES EITHER PARALLEL OR PERPENDICULAR TO THE RIGHT-OF-WAY TO THE EXTENT POSSIBLE. THE CONTRACTOR SHALL DETERMINE FINAL ROUTING BASED ON ACTUAL FIELD CONDITIONS PRIOR TO CONSTRUCTION AT EACH SITE, INCLUDING UTILITY LOCATOR SERVICE MARKINGS, TO PREVENT CONFLICTS WITH EXISTING UTILITIES.
6. WARNING TAPE IS REQUIRED IN ALL TRENCHES CONTAINING CONDUIT. MULTIPLE CONDUITS IN PARALLEL SHALL SHARE THE SAME TRENCH.
7. THE CONTRACTOR SHALL PROVIDE CITY OF WICHITA AN ELECTRONIC LIST OF GPS READINGS (EXCEL FORMAT) FOR ALL INSTALLED DEVICES, BOXES AND SPLICE VAULTS. THE ACCURACY OF THE GPS READINGS SHALL BE WITHIN 3 FT. OBTAIN GPS AND THREE TIE-POINT MEASUREMENTS FOR EACH BURIED ELECTRICAL PULL BOX PRIOR TO PLACING BACKFILL MATERIAL.
8. CENTER TO CENTER HORIZONTAL DISTANCES ARE ROUNDED UP TO THE NEAREST WHOLE FOOT. GRADE ELEVATION CHANGES ARE NOT ACCOMMODATED IN QUANTITES AND ARE INCIDENTAL.
9. ALL CONDUIT SIZES ARE INDUSTRY STANDARD ENGLSIH SIZE CONDUIT DESIGNATED BY THEIR ROUNDED NOMINAL INCE (IN) DIAMETER EQUIVALENT.
10. COMMUNICATION DUCT BANK SERVICE BOXES SHALL BE PAID FOR AS "COMMUNICATION DUCT SERIVCE BOX". COMMUNICATION DUCT (BORED OR TRENCHED) SHALL BE PAID BY THE LIN. FT. PRICE INCLUDES ALL WORK AND MATERIALS REQUIRED TO CONSTRUCT AND INSTALL THE SERVICE BOXES AND COMMUNICATION DUCT AS DETAILED.

SUMMARY OF COMMUNICATION DUCT QUANTITIES
(FOR INFORMATION ONLY)

STATION TO STATION		SIDE	COMMUNICATION DUCT		COMM. DUCT SERVICE VAULT (EACH)
			4" HDPE CONDUIT (TRENCHED)	4" HDPE CONDUIT (BORED)	
21+08.00	21+98.00	Lt.		102	1
21+08.00	21+15.19	Lt.	9		-
21+98.00	27+80.00	Lt.	608		1
27+80.00	34+41.00	Lt.	686		1
34+41.00	47+61.00	Lt.	1353		1
34+41.00	34+54.00	Lt.	170		-
34+54.00	34+52.00	Rt.	15		1
47+61.00		Lt.			1
		TOTALS	2,841	102	6

RECAPITULATION OF QUANTITIES

ITEM	QUANTITY	UNIT
Communication Duct (Trenched)	2841	L.F.
Communication Duct (Bored)	102	L.F.
Communication Duct Service Box	6	EACH
Adjustment of Existing Box	1	EACH

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

DESCRIPTION	DATE	MARK

PROJ NO: 472-85296
SCALE: -
DATE: 2/25/2020
DESIGNED BY: CCB
DRAWN BY: CCB
CHECKED BY: SGE

SHEET TITLE:
COMMUNICATION DUCT BANK GENERAL NOTES & QUANTITIES

SHEET NO.
210
SHEET 210 OF 262

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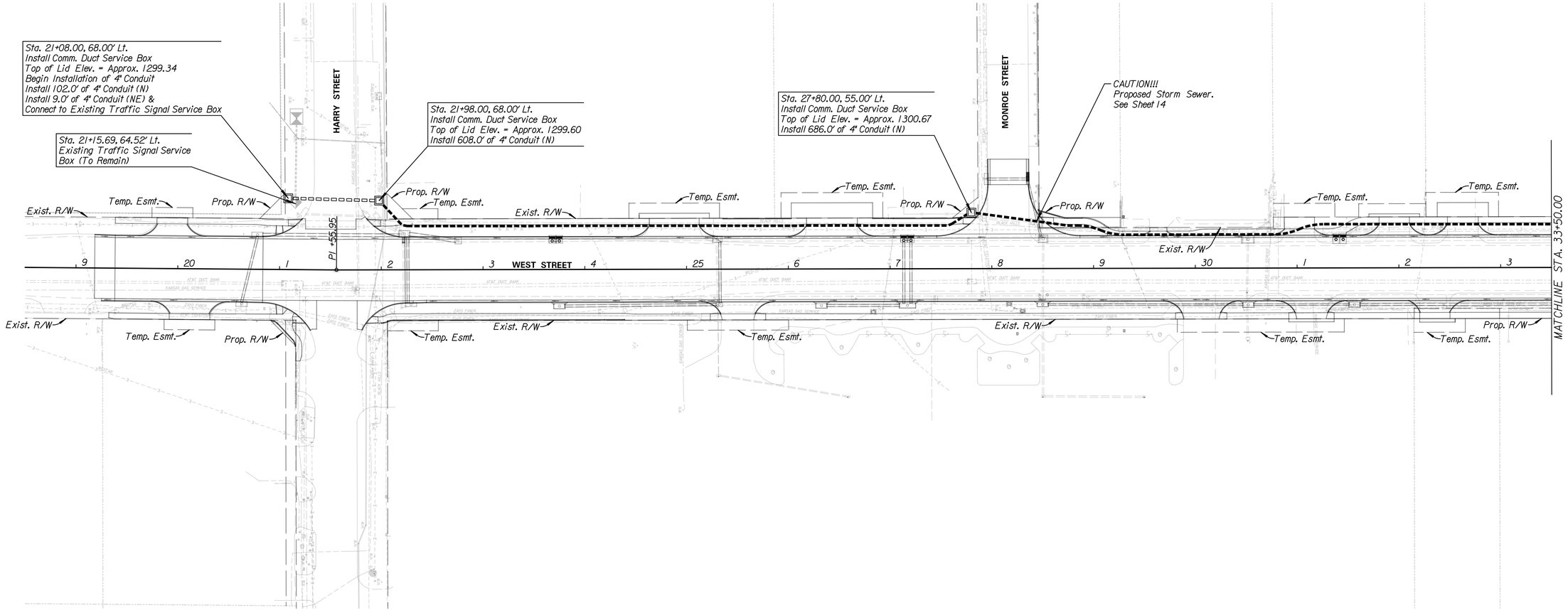
LEGEND

- Communication Duct Service Box (Proposed)
- Fiber Optic Cable Splice Vault (Existing)
- Pad Mounted Traffic Signal Cabinet
- Conduit, Existing
- Conduit, Bored, Proposed
- Conduit, Trenched, Proposed

SCALE
PLAN: Lat. & Long.
50' 0 50' 100'



GENERAL NOTES:

DEVICE AND CONDUIT SYMBOLOGY ON PLAN SHEET IS NOT SHOWN TO SCALE FOR PLAN CLARITY. DO NOT SCALE LOCATIONS FROM PLAN SHEET.

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.

FOR STORM SEWER PLAN & PROFILE SHEETS, SEE SHEETS 13-25

FOR HARRY & WEST STREET TRAFFIC SIGNAL DETAILS, SEE SHEET 197

TranSystems
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WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=50'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

WEST STREET
COMM. DUCT BANK
PLAN LAYOUT

SHEET NO.
211
SHEET 211 OF 262

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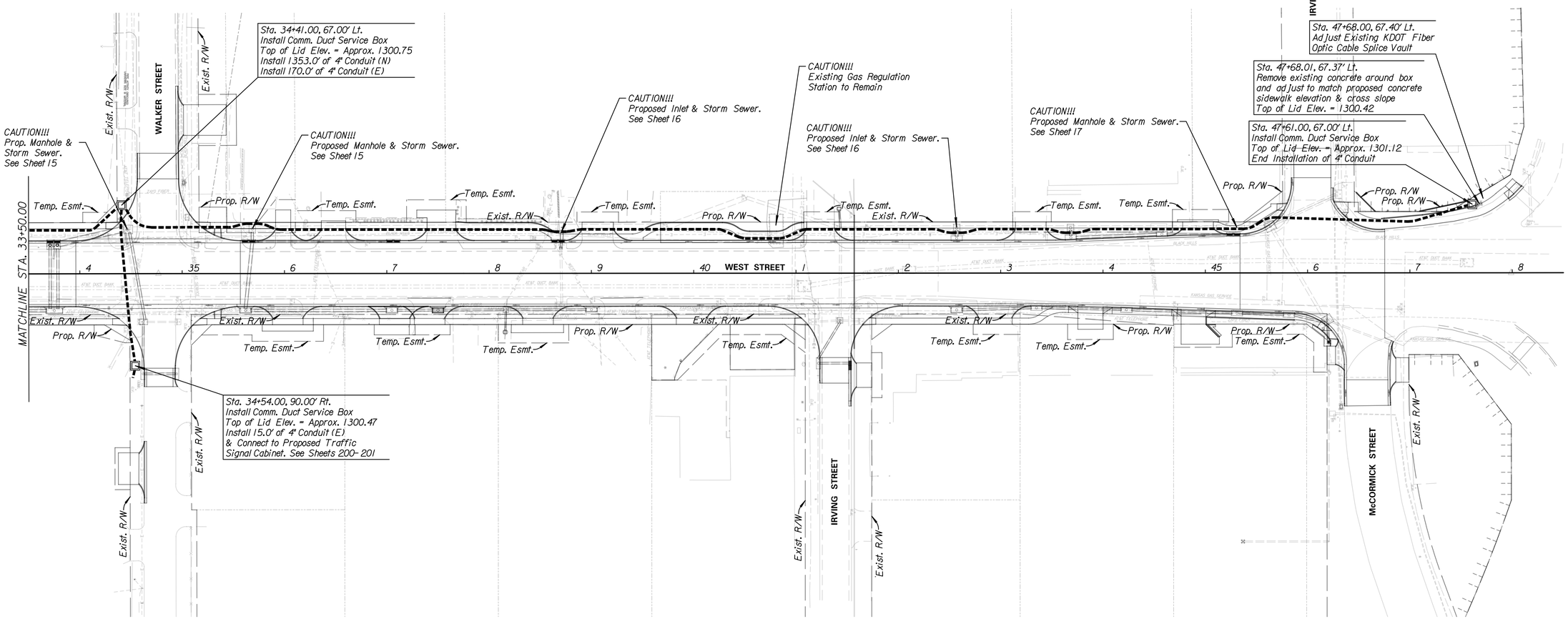
LEGEND

- Communication Duct Service Box (Proposed)
- Fiber Optic Cable Splice Vault (Existing)
- Pad Mounted Traffic Signal Cabinet
- Conduit, Bored, Proposed
- Conduit, Trenched, Proposed

SCALE
PLAN: Lat. & Long. 50' 0 50' 100'



GENERAL NOTES:

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FOR STORM SEWER PLAN & PROFILE SHEETS, SEE SHEETS 13-25

FOR WALKER & WEST STREET TRAFFIC SIGNAL DETAILS, SEE SHEET 200

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=50'
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

WEST STREET
COMM. DUCT BANK
PLAN LAYOUT

SHEET NO.
212
SHEET 212 OF 262

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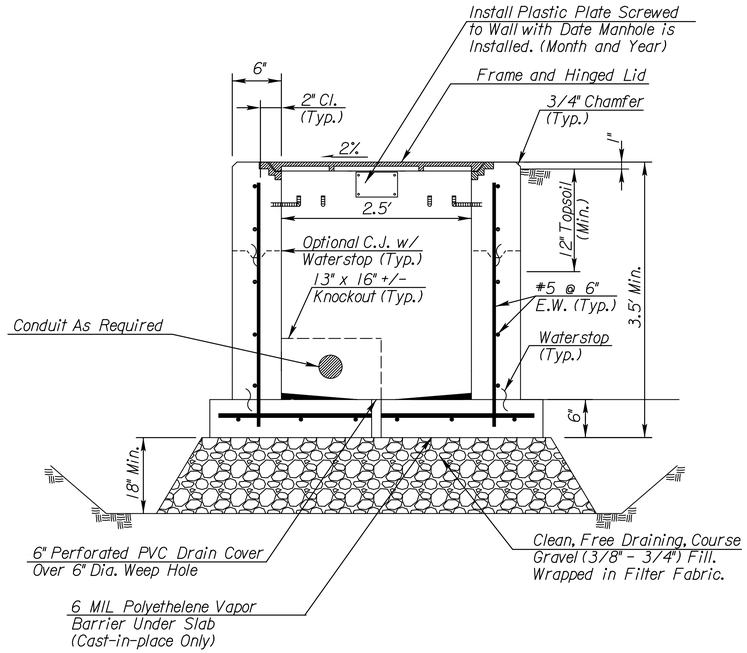
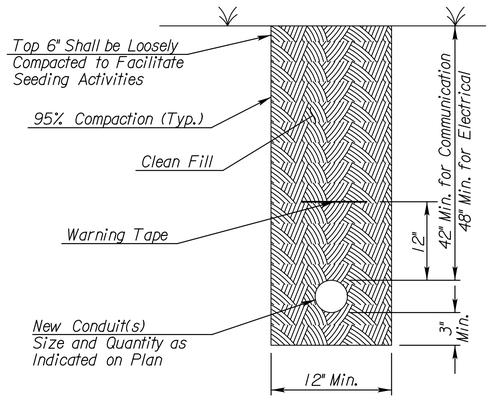


COMMUNICATION DUCT BANK SERVICE BOX SECTION "A–A"

No Scale



TRENCH DETAIL

No Scale

Contractor shall construct the trench at the locations shown on the plans. The vertical elevation of the trench may be adjusted by the Contractor as approved by the Engineer to clear utilities. This work shall be SUBSIDIARY to the bid item "Communication Duct" and shall include all materials, tools, labor equipment, pull boxes and incidentals necessary to complete the work.

GENERAL NOTES

For precast communication duct service box, submit shop drawings stamped by a structural engineer licensed in Kansas.

On a wall near lid, fasten a 2" x 4" plastic label plate. Show month and year installed.

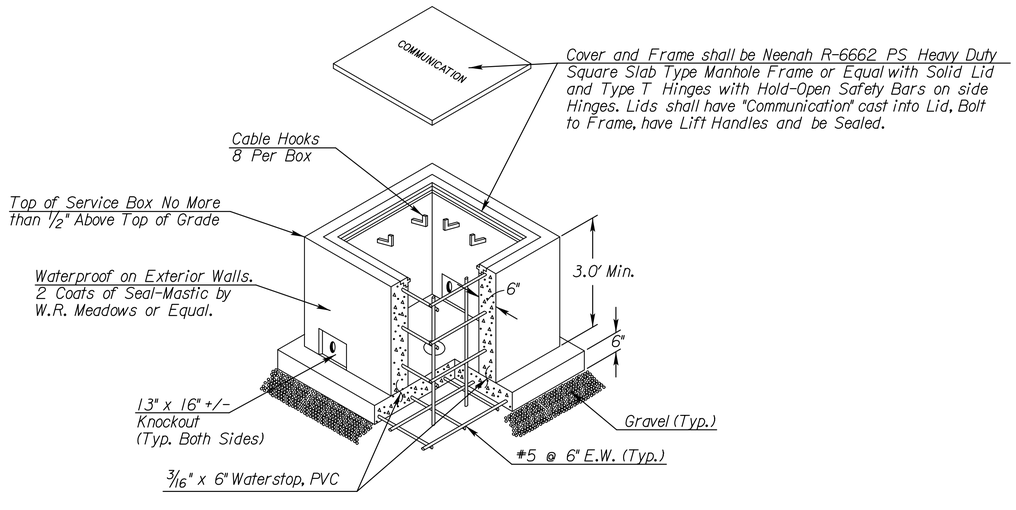
Concrete- 4,000 PSI Min. at 28 days, with 4% to 6% air.
Reinforcing- A615, Grade 60 (Fy= 60 ksi).

Lid security bolts shall be ½" dia. S.S. Provide (1) wrench to owner for lid security bolts.

See Standard Specifications for compaction requirements. Compaction around Communication Duct Service Box shall meet the same standard compaction requirements as a storm sewer inlet.

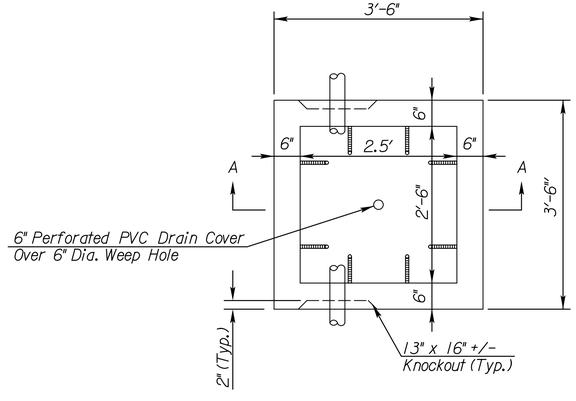
Communication Duct Bank Service Boxes shall be paid for as "Communication Duct Service Box" and include all work and materials required to construct the service box as detailed.

Communication Duct shall be paid for as Lin. Ft. of "Communication Duct" and includes all work and materials required to construct the duct as detailed.



COMMUNICATION DUCT BANK SERVICE BOX ISOMETRIC VIEW

No Scale



COMMUNICATION DUCT BANK SERVICE BOX PLAN VIEW

No Scale

Trans Systems
FAX: 316-462-5629

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

CITY OF WICHITA

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	N/A
DATE:	2/25/2020
DESIGNED BY:	CCB
DRAWN BY:	CCB
CHECKED BY:	SGE

SHEET TITLE:

COMMUNICATION DUCT BANK DETAILS

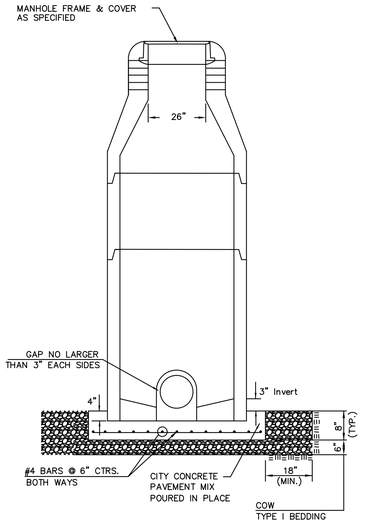
SHEET NO.

213

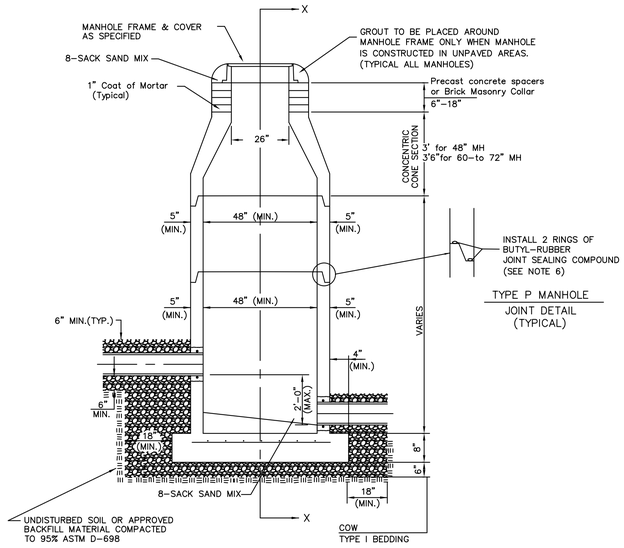
SHEET 213 OF 262

mhoemer
2/25/2020 - 1:51:37 PM - c:\transystems\ow_local\transystemscorp-pw1\mlnoemer\d0519510\C-ITS-M01-501.dgn

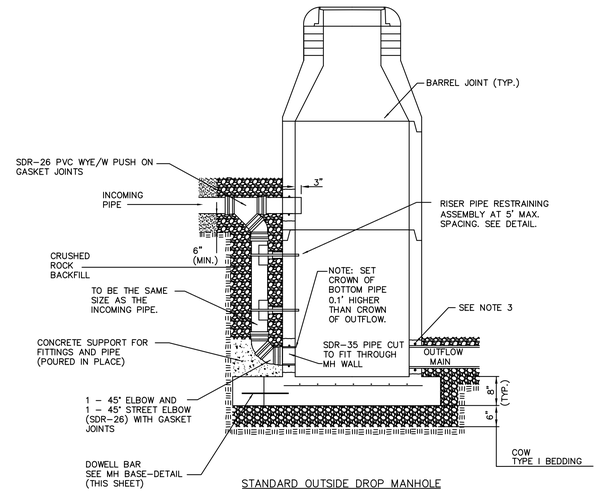
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



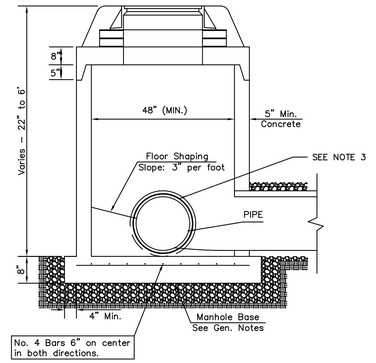
DOG HOUSE MANHOLE
(OVER EXISTING PIPE)
Not to Scale



STANDARD MANHOLE
Not to Scale



STANDARD OUTSIDE DROP MANHOLE
Not to Scale

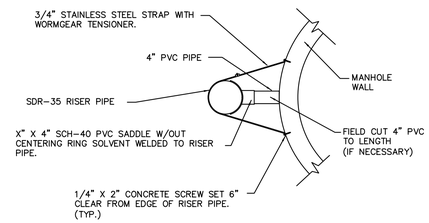


SHALLOW MANHOLE
Not to Scale

= COW TYPE I BEDDING = UNDISTURBED SOIL

PRECAST MANHOLE GENERAL NOTES

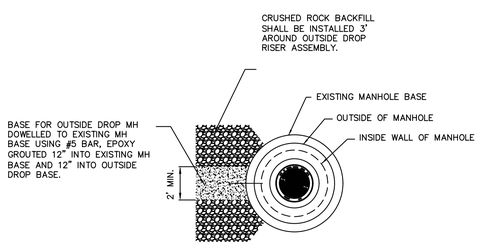
1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP SHALL BE INSTALLED TO JOIN THE SEWER PIPE TO THE MANHOLE WALL. THE SEWER PIPE SHALL BE SUPPORTED WITH CRUSHED ROCK A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
5. EXTERIOR MANHOLE WALLS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
6. JOINT SEALING COMPOUND SHALL BE PER 804.4 OF STANDARD SPECIFICATIONS.
7. ALL MANHOLE SECTION JOINTS THAT WILL BE IN GROUNDWATER OR GREATER THAN 12' DEEP SHALL BE WRAPPED WITH AN EXTERNAL JOINT SEAL PER SECTION 804.4 OF STANDARD SPECIFICATIONS. AS INDICATED BY THE PLANS.
8. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE FOR DOG HOUSE MANHOLES.
9. 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.
10. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
11. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACE AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
12. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO.4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
13. WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
14. OPENINGS SHALL BE CORE DRILLED INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS DRILLED INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
15. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
16. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
17. THE VERTICAL DROP IN STANDARD MANHOLES SHALL NOT EXCEED 2' REGARDLESS OF PIPE SIZE. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
18. STANDARD MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
19. PRECAST CONCRETE SPACERS OR BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
20. THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.



RISER PIPE RESTRAINING ASSEMBLY
Not to Scale

SANITARY SEWER MANHOLE DIAMETERS

DIAMETER	DEPTH	PIPE SIZE
4'	0'-15'	8"-18"
5'	>15'-30'	21"-30"
6'	>30'	36"-60"



MH BASE DETAIL
Not to Scale

TYLER A. UMMEL
LICENSED
24843
12/23/2020
KANSAS
PROFESSIONAL ENGINEER

REVISION APRIL 2017	REMOVED CLEANOUT ON OUTSIDE DROP MANHOLE

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

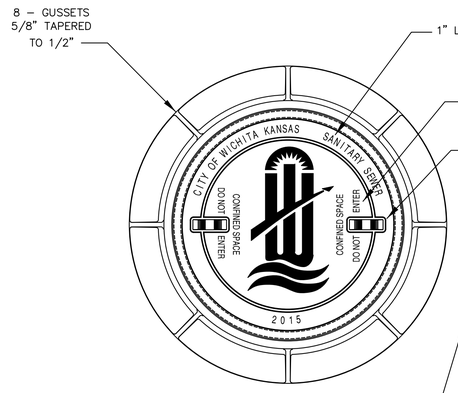
PRECAST SANITARY SEWER MANHOLE

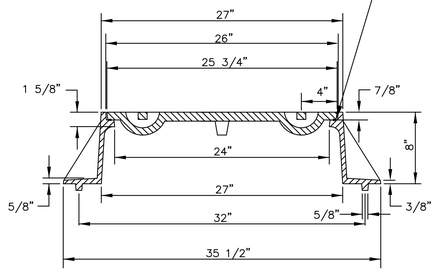
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
214 of 262



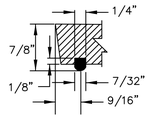


STANDARD MANHOLE FRAME & COVER

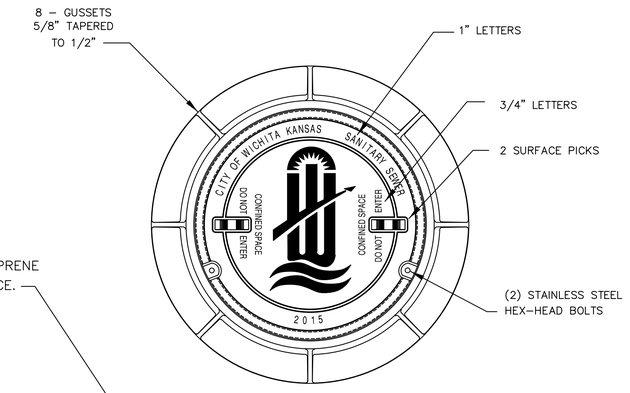
DEETER #1261 OR EJIW #1936–Z1

NOTE:

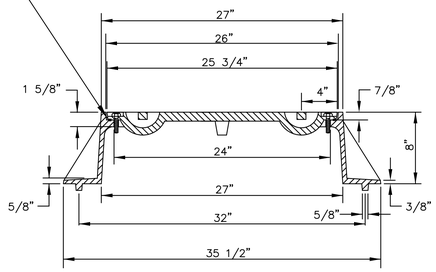
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.



O–RING DETAIL



ALL LIDS TO BE FURNISHED WITH O–RING/NEOPRENE GASKET GLUED IN THE COVER BEARING SURFACE.

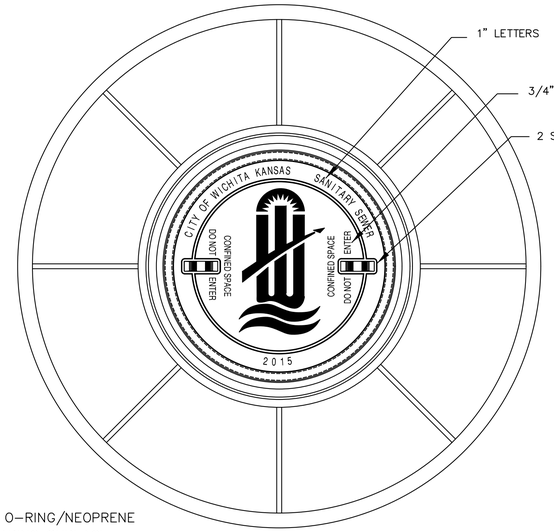


BOLT DOWN MANHOLE FRAME & COVER

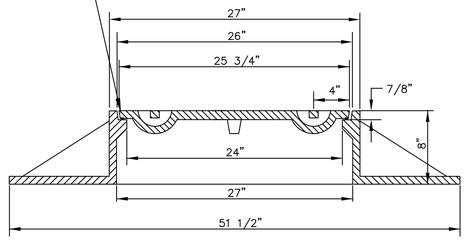
DEETER #1261 OR EJIW #1936–Z1

NOTE:

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.



ALL LIDS TO BE FURNISHED WITH O–RING/NEOPRENE GASKET GLUED IN THE COVER BEARING SURFACE.



WIDE FLANGED FRAME & COVER

DEETER #1261A

NOTE:

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A–48. DIMENSIONS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

2. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON–ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

3. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SEATING SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUM–FERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

4. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1"IIN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SANITARY SEWER".
THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN WITH CITY OF WICHITA DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

TYLER A. UMMEL
LICENSED
24843
2/25/2020
KANSAS
PROFESSIONAL ENGINEER

REVISED: MARCH 2016

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MANHOLE FRAME AND COVER (SANITARY SEWER)

CITY ENGINEER

GARY JANZEN, P.E

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET

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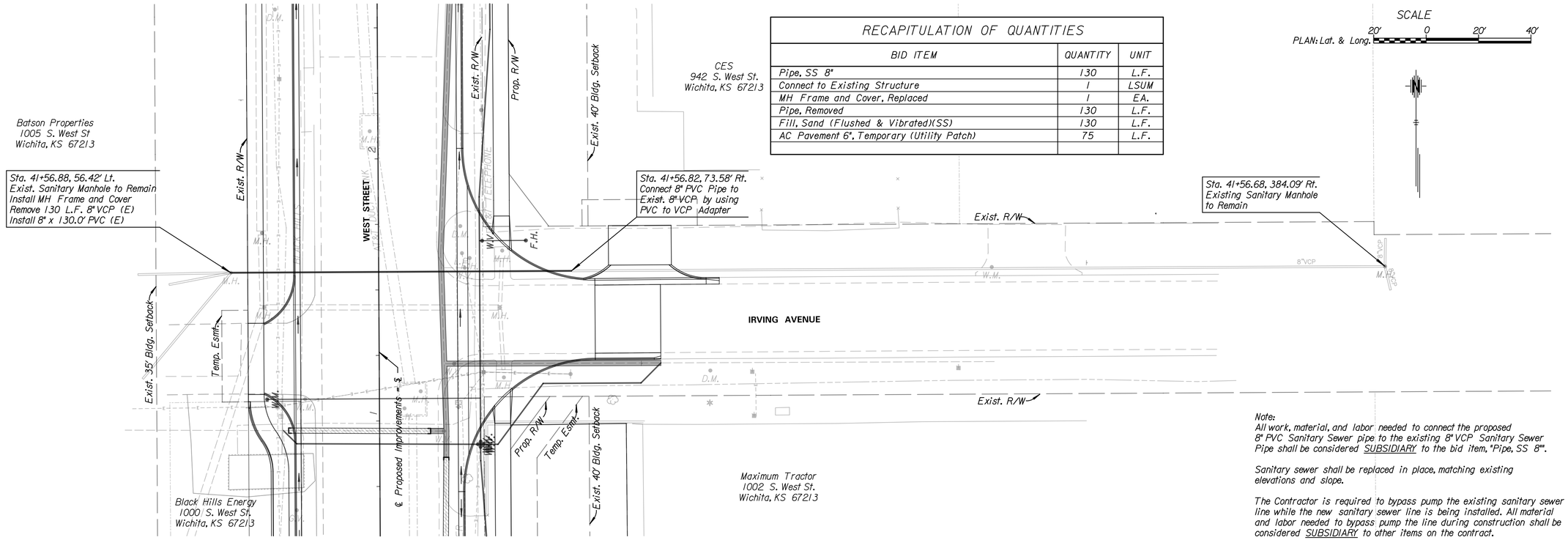
RECAPITULATION OF QUANTITIES

BID ITEM	QUANTITY	UNIT
Pipe, SS 8"	130	L.F.
Connect to Existing Structure	1	LSUM
MH Frame and Cover, Replaced	1	EA.
Pipe, Removed	130	L.F.
Fill, Sand (Flushed & Vibrated)(SS)	130	L.F.
AC Pavement 6", Temporary (Utility Patch)	75	L.F.

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



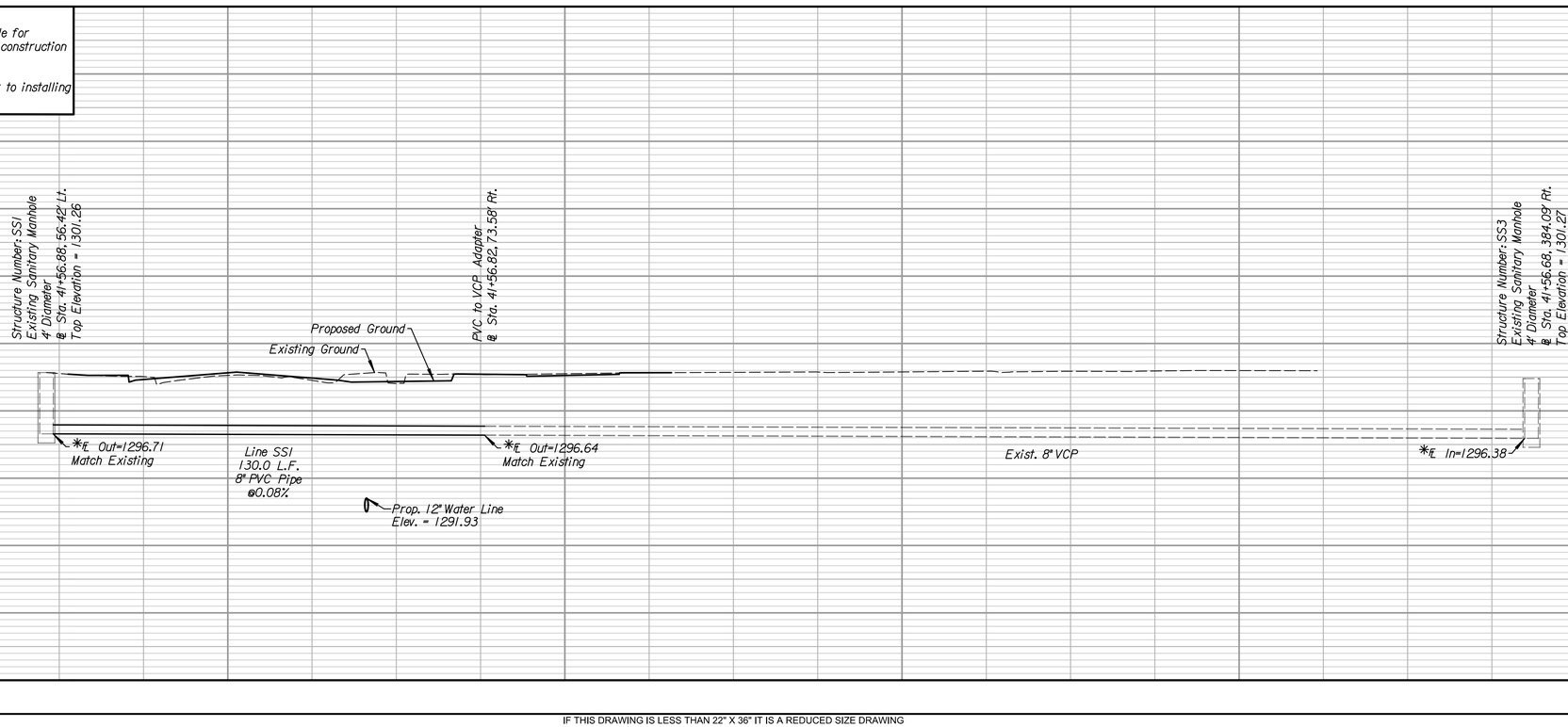
Note:
All work, material, and labor needed to connect the proposed 8" PVC Sanitary Sewer pipe to the existing 8" VCP Sanitary Sewer Pipe shall be considered SUBSIDIARY to the bid item, "Pipe, SS 8".

Sanitary sewer shall be replaced in place, matching existing elevations and slope.

The Contractor is required to bypass pump the existing sanitary sewer line while the new sanitary sewer line is being installed. All material and labor needed to bypass pump the line during construction shall be considered SUBSIDIARY to other items on the contract.

All utilities shown in the profile are shown at approximate depths. The Contractor is responsible for field verifying the locations of utilities prior to construction in that area.

*Flowline Elevation Shall be field verified prior to installing the pipe.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

TYLER A. UMMEL
LICENSED
24843
2/25/2020
KANSAS
PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET SANITARY SEWER IMPROVEMENTS

SHEET NO.
216
SHEET 216 OF 262

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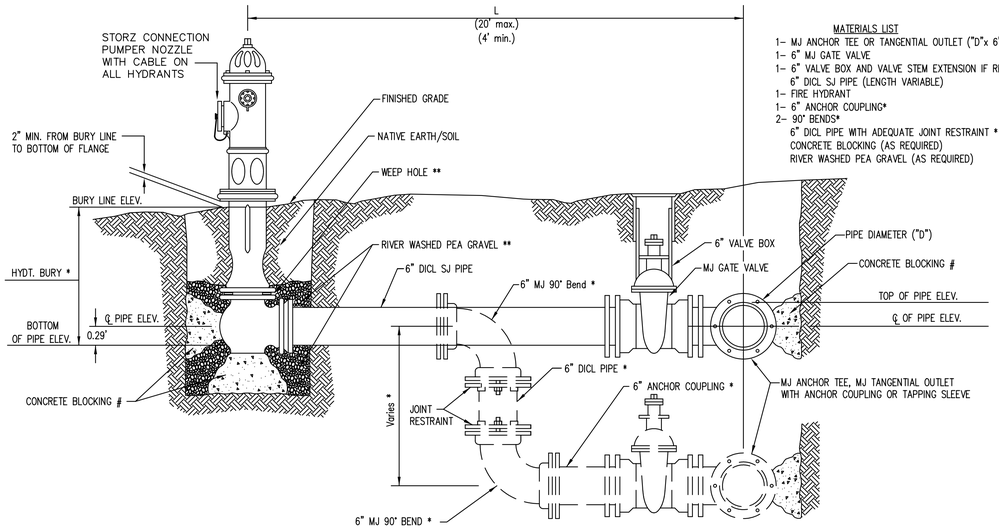
IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING



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)

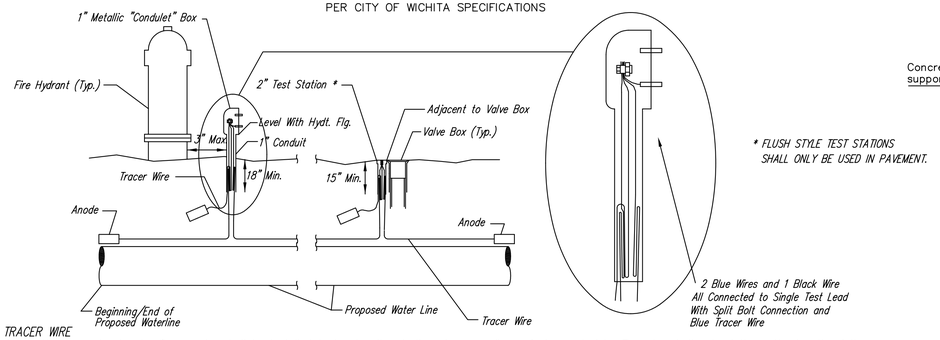
* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS 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.

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS



* FLUSH STYLE TEST STATIONS SHALL ONLY BE USED IN PAVEMENT.

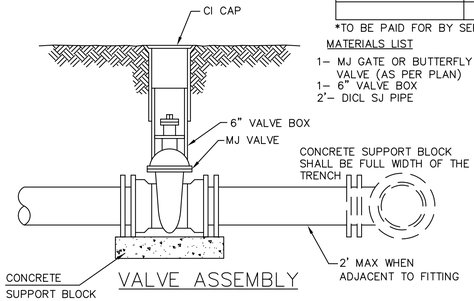
TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of waterlines. Any exception to the location shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 3 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.
WIRE
The tracer wire shall be Blue No. 12 AWG CCS with 3045 mil HDPE insulation. The isulation shall be heat, oil, and gasloine resistant as manufactured by Temple Electric or approved equal. 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. the insulation sheathing shall be removed such that 1" bare copper wire at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.
TEST STATIONS
A complete list of approved Tracer Wire can be found on City of Wichita's website at www.wichita.gov
The test station for fire hydrant applications shall be a 1 inch galvanized "conduiet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PSJB as manufactured by HANDLEY Industries or approved equal. The "conduit" style test station shall be attached to a 1 inch 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. 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 installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.
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

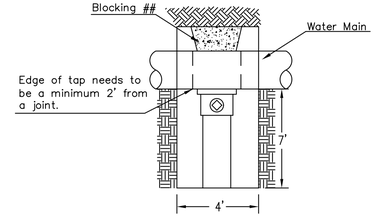
FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
*22+16.05, RT.	1299.15	1294.61	5.12'	
*27+63.51, RT.	1299.69	1293.69	6.58'	
35+15.44, RT.	1301.27	1296.16	5.69'	
41+68.53, RT.	1301.32	1292.09	9.81'	6.81'

*TO BE PAID FOR BY SEPARATE BID ITEMS AND NOT BY FIRE HYDRANT ASSEMBLY



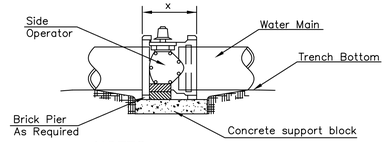
MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

VALVE ASSEMBLY



CITY TAP

When the City of Wichita makes tap, blocking is to be done by Contractor

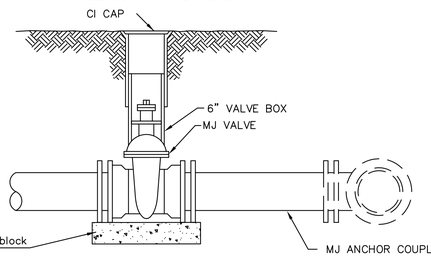


NOTES

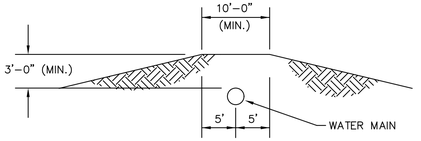
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

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

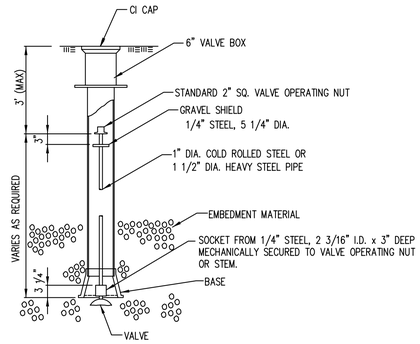


ANCHORED VALVE ASSEMBLY



PROTECTIVE FILL DETAIL

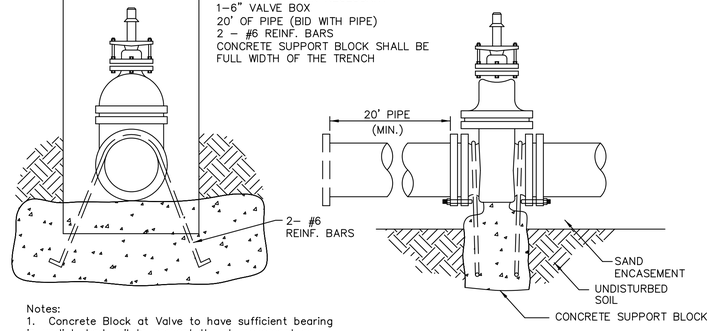
MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3'. (COST SUBSIDIARY TO PIPE INSTALLATION)



VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.

MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



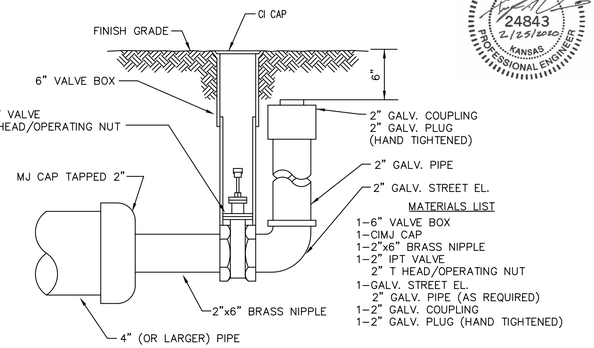
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.

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 #/in²
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

TYLER A. LUMMIS LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

REVISED: JULY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

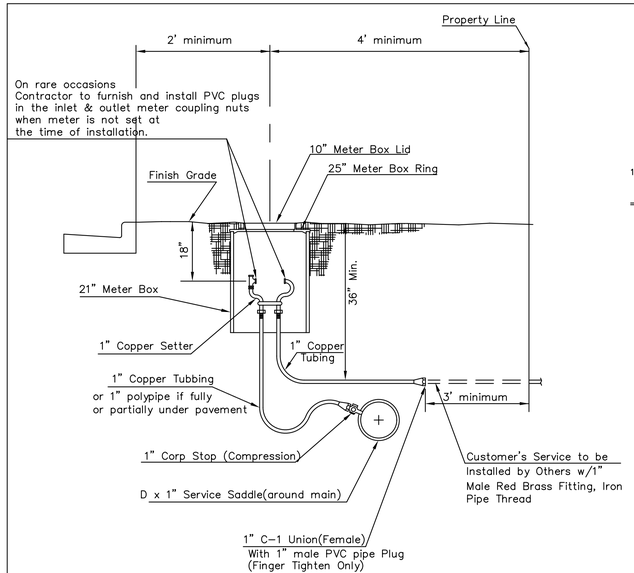
STANDARD WATER ASSEMBLY DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
217 of 262



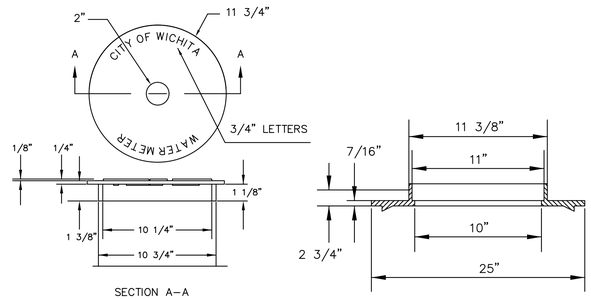
Minimum length of pigtail on consumer side is 36" of copper tubing from meter set.

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.

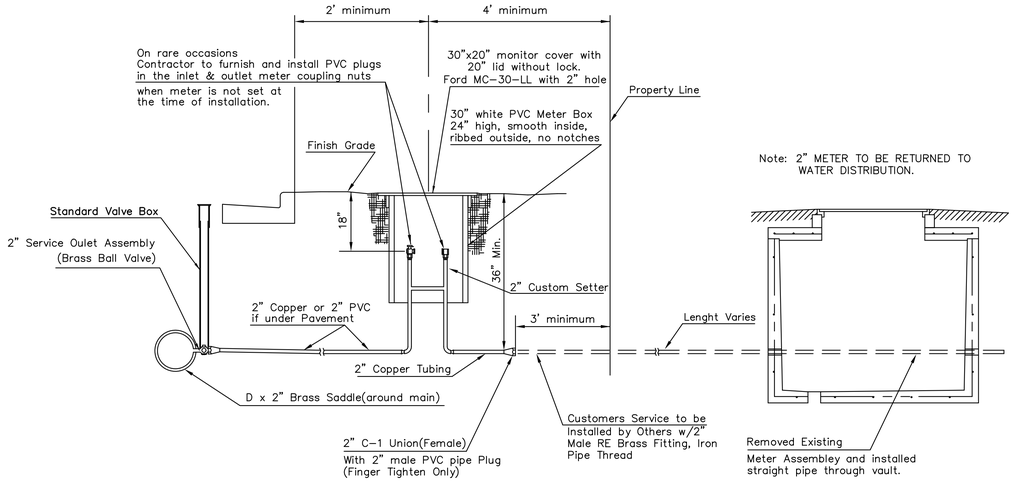
Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

TYPICAL 1" METER SETTING



Material: Cast Iron

NOT TRAFFIC RATED
RING & LID FOR 1" METER BOX



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'.

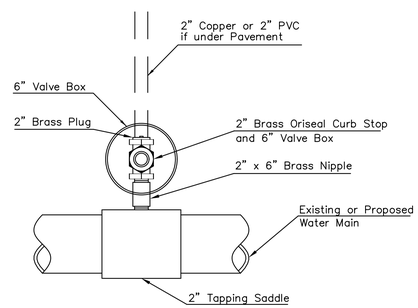
SERVICE TYPES

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:

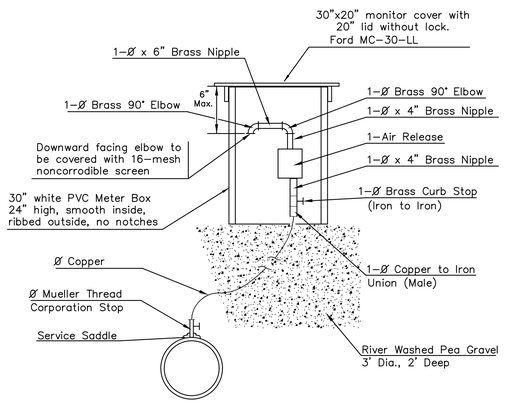
THE 1"/2" AIR RELEASE ASSEMBLY WILL TYPICALLY BE USED ON WATER MAINS 24" AND SMALLER, AS SPECIFICALLY DESIGNATED IN THE PLANS. COMBINATION AIR RELAEASE ASSEMBLIES WILL BE SPECIFICALLY DESIGNED FOR PROJECTS WITH LARGER MAINS, AND WILL BE INCLUDED IN THE PLANS.



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"

REVISED: JANUARY 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

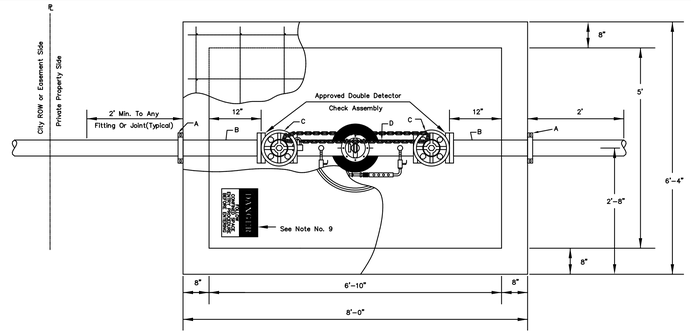
STANDARD WATER SERVICE DETAIL

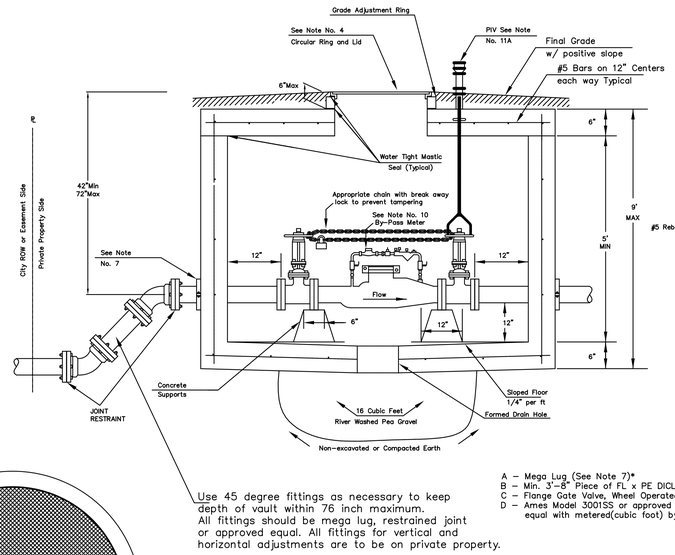
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
218 of 262

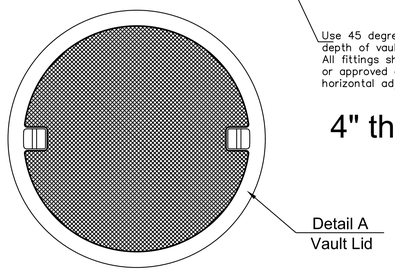


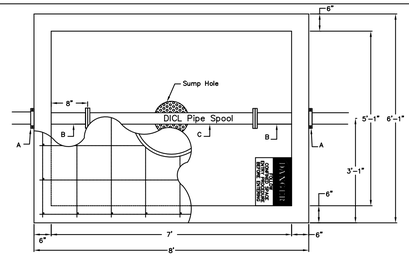


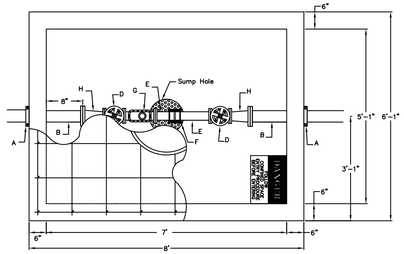
Use 45 degree fittings as necessary to keep depth of vault within 76 inch maximum. All fittings should be mega lug, restrained joint or approved equal. All fittings for vertical and horizontal adjustments are to be on private property.

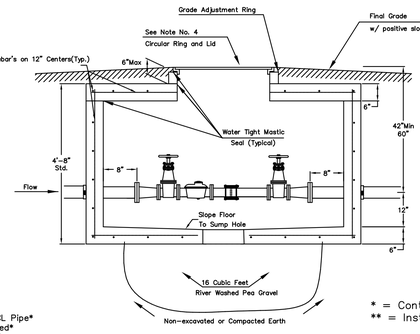
A – Mega Lug (See Note 7)*
B – Min. 3'–8" Piece of FL x PE DICL Pipe*
C – Flange Gate Valve, Wheel Operated*
D – Ames Model 3001SS or approved equal with metered(cubic foot) by–pass assembly*

4" thru 8" Fire Service







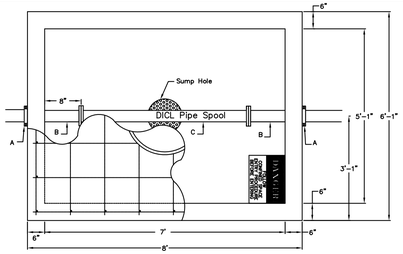


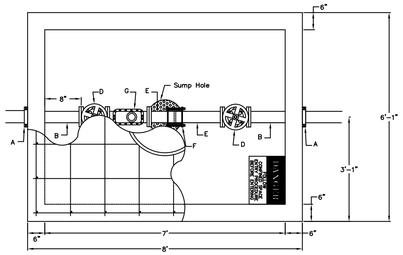
A – 4" Vault Clamp*
B – Min. 3' Piece of 4" FL x PE DICL Pipe*
C – 4" DICL Flanged Pipe Spool*
D – 3" Flange Non–rising Stem Gate Wheel Valve**
E – 3" FL x PE Pipe**
F – 3" Flex Coupling**
G – 3" Badger Recordall II Turbo Cubic Foot Meter with AMR Register.**
H – 3" x 4" FL Reducer**

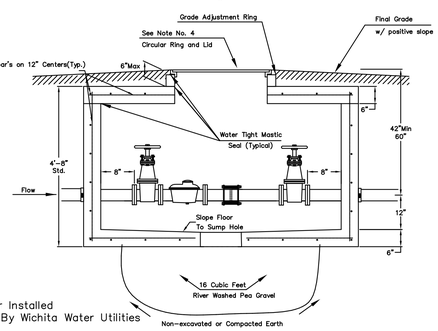
3" Domestic Service

NOTE:

Domestic Services larger than 6" shall be custom designed by Consultant Engineer.







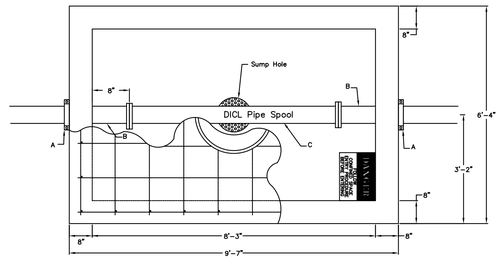
* = Contractor Installed
** = Installed By Wichita Water Utilities

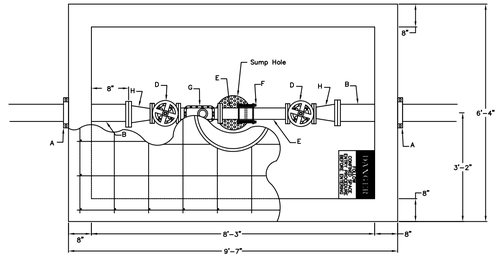
A – 4" Vault Clamp*
B – Min. 3' Piece of 4" FL x PE DICL Pipe*
C – 4" DICL Pipe Spool*
D – 4" Flange Non–rising Stem Gate Wheel Valve**
E – 4" FL x PE Pipe**
F – 4" Flex Coupling**
G – 4" Badger Recordall II Turbo Cubic Foot Meter with AMR Register.**

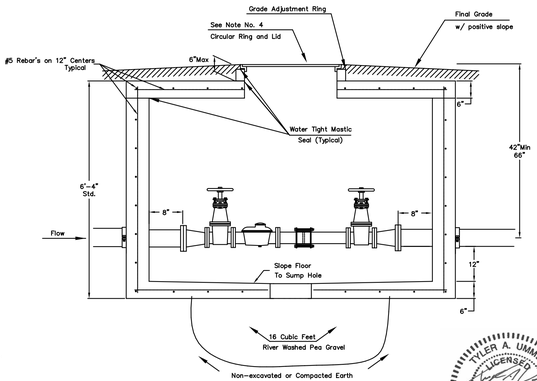
4" Domestic Service

NOTE:

INSPECTOR FROM PUBLIC WORKS AND UTILITIES TO BE CONTACTED 24 HOURS PRIOR TO INSTALLATION TO SET VAULT
CONTACT: 316–219–8928 OR 316–219–8929







A – 6" Mega Lug (See Note 7)*
B – Min. 3' Piece of 6" FL x PE DICL Pipe*
C – 6" DICL Pipe Spool*
D – 4" Flange Non–rising Stem Gate Wheel Valve**
E – 4" FL x PE Pipe**
F – 4" Flex Coupling**
G – 4" Badger Recordall II Turbo Cubic Foot Meter with AMR Register**
H – 6" x 4" Flange Reducer**

6" Domestic Service with 4" meter

TYLER A. UMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

Notes For All Services – 3" thru 12":

1. When the standard vault dimensions are not applicable, such as when additional space is required for special pipe, fittings, additional meters, etc. the consultant design engineering shall design a vault with the required dimensions for Public Works and Utilities approval.
2. The vault shall be poured concrete, cement blocks (voids to be completely filled with 2500 P.S.I. concrete), or approved precast structure. The intent of these details shall not be limited by drawings or standards of precast structures.
3. Vault location to be determined by Public Works and Utilities prior to construction and approved by Departments's field supervisor prior to installation. A final inspection will be required for acceptance. Vault location standards include but not limited to: not to be located where subjected to vehicular loads unless vault is H20 traffic rated, not to be located in any right–of–way or utility easement, and must be located on the property being served.
4. The manhole ring and lid shall be Neenah R–6034 Frame with Type "C" Solid Lid and Drop Down Handle or US Foundry APS–30x30 (Aluminum) or Deeter 1261 or EJ 1936z1(with pick hole(s) as shown in Detail A). Where applicable the standard 10" Public Works and Utilities pattern meter reading lid and ring shall be located directly above water meter register. All joints of concrete to concrete or metal to concrete in the construction of the vault shall have a approved water tight mastic joint seal.
5. Any fittings or appurtenances required to achieve proper elevation of pipe through the vault shall be provided by the contractor and appropriately noted on the as–builts submitted by the inspecting engineer. Such fittings shall be a minimum of 2' from the exterior wall of vault.
6. For all domestic services larger than 3" the contractor shall provide an outlet flange connection as shown 8" from the inside wall. Inlet and outlet wall sleeves shall be provided and installed by the contractor and shall be in alignment with one another. The inlet and outlet pipe shall be ductile iron pipe, cement lined, Class 150 per Standard Specifications and shall be continuous through vault and joint no less than 2' from the exterior wall of vault. Flanges of inlet and outlet pipe shall be in proper alignment and bolt pattern shall be rotated in such a way that valves and other fittings shall be in their proper vertical alignment when installed.
7. For all services 4" and larger the contractor shall install a mega lug, restrained joint, or approved equal on the exterior walls of the vault, which shall be manufactured of ductile iron conforming ASTM A 536–80, heat treated to a minimum hardness of 370 BHN and have a working pressure of a least 250 P.S.I. For a services smaller than 4" the contractor shall install an approved vault clamp on the exterior walls of the vault.
8. All valves, meters, assemblies and fitting shall be provided with sufficient concrete or other approved supports to the vault floor.
9. The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site consideration, the sign may be fastened to the vault lid if it does not impede access to the handle. Acceptable materials: Aluminum 73415HH, Plastic 73439HH or S.A. Vinyl 73463HH.
10. All meters shall have a electronic read register compatible with the current City of Wichita meter reading system. All detector meters shall be on 5/8 cubic foot Badger meter with ADE register and 25' long Itron cord and plug or approved equal. Gallon meters shall not be accepted.
11. Additional Notes For Fire Services
    A. A post indicator valve (PIV) is an option for the outlet valve. It is not required by the City of Wichita ordinance, it can be requested by the owner and will be allowed at the discretion of the City Engineer.
    B. When Siamese connections are required by the Wichita Fire Department, refer to the current City Code Section 15.
    C. If due to any reason the completed vault retains ground or drainage water in excess of 4" in depth from the floor of the vault, the property owner shall be responsible for providing and installing a appropriate automatic sump pump or approved equal, as well as any other appurtenances required to make such system function as intended.

REVISED: AUGUST 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

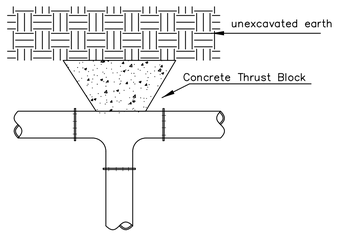
STANDARD VAULT DETAILS AND METER ASSEMBLIES

CITY ENGINEER
GARY JANZEN, P.E.

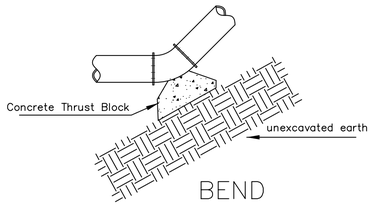
PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

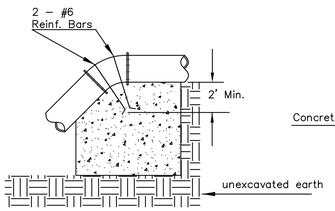
SHEET
219 of 262



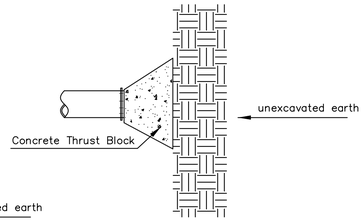
TEE



BEND



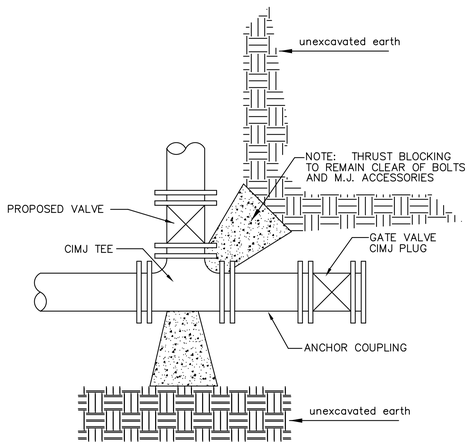
VERTICAL BEND



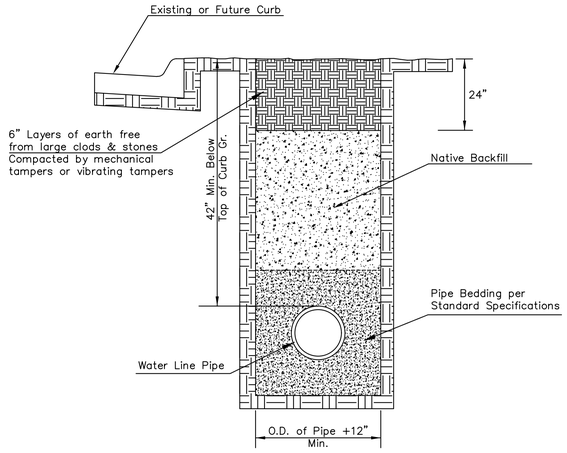
PLUG

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

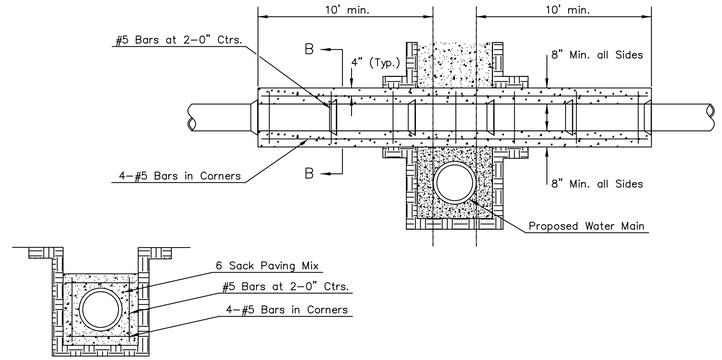
TYPICAL THRUST BLOCKS



KEY BLOCK DETAIL



TRENCH COMPACTION IN ROAD RIGHT–OF–WAY

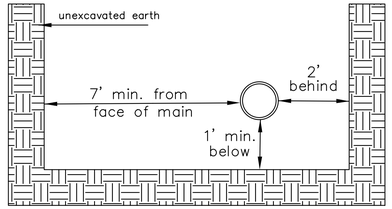


SECTION B–B

Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

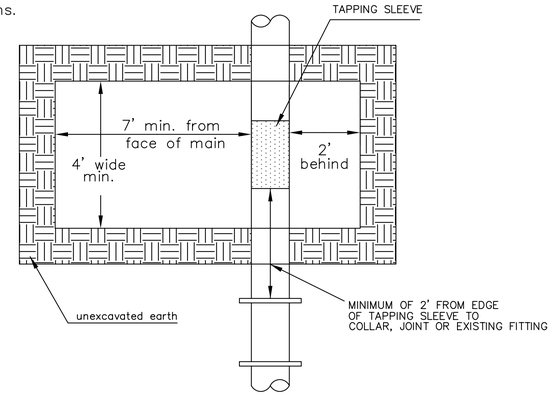
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER

SIDE VIEW

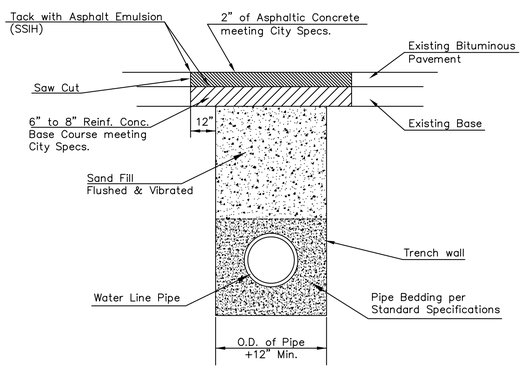


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



EXCAVATION FOR WET TAP



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS

TYLER A. UMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

REVISED: JULY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

MISCELLANEOUS WATER DETAILS

CITY ENGINEER
GARY JANZEN, P.E..

PROJECT NUMBER	OCA NUMBER	DATE
472-85296	707106	2/25/2020

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

SHEET
220 of 262

GENERAL NOTES

1. 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.
2. The Contractor shall notify pipeline companies at least forty-eight (48) hours in advance of any work being performed over or adjacent to existing pipelines.
3. The Contractor shall give all property owners and/or tenants of developed property directly abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
4. All water mains and appurtenances shall be installed in accordance with City of Wichita, Kansas, Standard Specifications for Water Main Installations No. PW005240.
5. Contractor shall not start work on the project until the Project Inspector is assigned to the project and is present on the site. Any work done without inspection will be required to be uncovered for inspection.
6. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by their construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
7. Utility service lines, poles, gas valve boxes, meter, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
8. Opening and closing of water valves shall be done slowly to prevent damage to the water distribution system from water hammer. All valves closed by the Contractor must be reopened as new construction permits. Project Inspector must ascertain that any valve closed by the Contractor is reopened. Contractor will be permitted to operate water valves only when the Project Inspector assigned to the project is present.
9. A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of 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, except when such saw cuts are within three (3) feet of an existing joint the limits of removal shall be extended to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered as SUBSIDIARY to the removal of the surface or pavement.
10. The bid item "Fire Hydrant Installation" shall include installation of a New Fire Hydrant, thrust blocking, fittings, and all necessary adjustments required to bring the hydrant into complete and working order.
11. Each bidder shall visit the site of the project before submitting their proposal for the work so that they may inform themselves as to the existing field conditions and the obstacle which might be encountered.
12. Interurban traffic generated outside the project area and local business or residential traffic generated within the project area is to be carried through construction as further promulgated by construction phasing plans and the project special provisions. The Contractor shall utilize barricades, signs, guards, and flagmen in accordance with the Manual on Uniform Traffic Control Devices.
13. Rubble from the removal of miscellaneous structures including pavement, pipes, and etc. shall be disposed of on sites provided by the Contractor. These sites shall also be approved of by the Engineer as to suitability, appearance, and site location. Location that, in the opinion of the Engineer, leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in water of the United States or wetlands is subject to U.S. Corps of Engineers permitted regulations. Any material buried or stockpiled beyond approved construction limits may require archaeological investigations unless buried in a previously approved disposal location.
14. Temporary Blowoff Valves necessary to flush lines at existing water line tie-ins shall not be paid for directly, but shall be considered SUBSIDIARY to other items in the bid.
15. Connections to existing water lines shall not be paid for directly, but shall be considered SUBSIDIARY to other items in the bid.
16. Contractor to coordinate with the United States Postal Service prior to any temporary or permanent relocation of existing mailboxes.
17. Contractor to follow all current City of Wichita erosion control standards.
18. Contractor to maintain access to all driveways at the end of each construction day, unless, prior approval from the Project Inspector.
19. The Contractor shall understand that utilities may have been relocated to new locations and that additional coordination with Utility Companies may be required. The Contractor shall be required to work around existing utilities within the right-of-way.
20. Taps larger than 12" shall be done by the Contractor, taps 12" or smaller will be done by the City of Wichita unless otherwise noted in the plans.
21. All existing water line structures (i.e. water valve assemblies, fire hyrdant assemblies, etc.) called out for removal in the plans shall be taken to the City of Wichita Water Department Material Yard located at 1701 Sim Park Drive.
22. Any existing joint exposed during excavation shall be replaced if within four feet of proposed joint.
23. Existing underground utilities are shown at estimated depths. The Contractor shall verify the exact depths of underground utilities that are critical to the construction before beginning work. The cost for this shall be SUBSIDIARY to the project.
24. Contractor shall verify horizontal and vertical location, type size and class of existing waterlines prior to making connections. The existing waterline locations as shown on the plans are approximate. The contractor shall make adjustments as required and approved by the Engineer. Provisions and installation of pipe adaptors, short sections of pipe, and couplers shall be SUBSIDIARY to other pay items of work.
25. Contractor shall make minor adjustments to the new construction if required by the location of any existing utility at no cost to the owner. Should a conflict occur Contractor shall contact Engineer and utility owner as shown in plans.
26. All pipe 11.00 LF or less shall be DICL lined pipe.
27. The Contractor is required to have a certified licensed fire sprinkler specialist inspect Water Line 4 prior to backfilling and compacting the newly installed water line.
28. All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

UTILITY OWNERS

AT&T
c/o Shannon Brinkmeyer
154 N. Broadway, Room 210
Wichita, KS 67202
Phone: 316-268-2931

Cox Communications
c/o James Walburn
901 George Washington Blvd.
Wichita, KS 67211
Phone: 316-260-7491

Evergy Transmission
c/o Greg Roy
P.O. Box 208
Wichita, KS 67201
Phone: 316-648-9190

Evergy Distribution
c/o Greg Viecelli
Wichita, KS 67201
Phone:

Black Hills Energy
c/o Kelly Kraus
2330 N. Hoover
Wichita, KS 67205
Phone: 316-941-1628

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

Zayo Group
c/o Jeff Capps
316-833-9032

Level 3 Communications
c/o Ken Hadrick
303-482-9826

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

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

Traffic Signals
City Of Wichita, Traffic Dept.
c/o Mike Armour
City Hall, 455 N. Main, 7th Floor
Wichita, KS 67202
Phone: 316-268-4448

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

Utility Notes:

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

RECAPITULATION OF QUANTITIES

BID ITEM	QUANTITY	UNIT
Pipe, WL 4" (Restrained)(DICL)	7	L.F.
Pipe, WL 6" (Restrained)(DICL)	30	L.F.
Pipe, WL 8" (Restrained)	601	L.F.
Pipe, WL 8" (Restrained)(DICL)	81	L.F.
Pipe, WL 12" (Restrained)	1466	L.F.
Pipe, WL 12" (Restrained)(DICL)	119	L.F.
Valve Assembly, Anchored 8"	6	EA.
Valve Assembly, Anchored 12"	5	EA.
Fire Hydrant	2	EA.
Fire Hydrant Assembly	2	EA.
Fire Hydrant Assembly, Removed	4	EA.
Fill Sand (Flush & Vibrated)	2287	L.F.
Pipe, Cut and Cap 8"	6	EA.
Pipe, Cut and Cap 12"	4	EA.
6" Plug	2	EA.
2" Blowoff Assembly	2	EA.
8" AC Coupler	1	EA.
12" AC Coupler	1	EA.
Pipe Removed	1034	L.F.
Valve Box Assembly, Removed	6	EA.
Service Line, Short 1"	10	EA.
Service Line, Short 2"	1	EA.
Service Line, Long 1"	11	EA.
Service Line, Long 2"	1	EA.
AC Pavement 6", Temporary (Utility Patch)	200	S.Y.

WATER METER INSTALLATION
(For Information Only)

WATER METER LOCATION	WATER METER TOP ELEVATION	TYPE OF SERVICE	NORTHING	EASTING	ADDRESS SERVICED	SERVICE TAP NUMBER	COMMENTS
† 27+80.12, 52.28' Lt.	1300.20	1" Long Service	1678856.9274	1633955.3866	1501 S. West Street	85587-100	
† 28+93.22, 40.86' Rt.	1300.13	1" Short Service	1678972.0992	1634045.9523	1300 S. West Street	87334-100	
† 29+17.95, 35.45' Lt.	1299.67	1" Long Service	1678995.0998	1633969.1089	1127 S. West Street	85957-100	
† 30+74.65, 37.11' Lt.	1299.58	1" Long Service	1679151.7240	1633963.9100	1123 S. West Street	68000-100	
† 31+37.08, 39.14' Rt.	1300.03	1" Short Service	1679218.2911	1634038.6688	1210 S. West Street	80438-100	
† 32+42.71, 42.24' Lt.	1300.03	2" Long Service	1679339.6182	1633954.9932	1111 S. West Street	82787-100	
† 32+44.85, 42.18' Lt.	1299.98	1" Long Service	1679321.7587	1633954.9967	1107 S. West Street	69544-100	
† 32+46.99, 38.61' Rt.	1299.78	1" Short Service	1679325.7210	1634035.7240	1110 S. West Street	68684-100	Traffic Rated Top
35+63.80, 38.53' Lt.	1300.44	1" Long Service	1679640.7676	1633951.5726	1033 S. West Street	74705-100	
36+09.68, 45.29' Rt.	1300.95	1" Long Service	1679688.4186	1634034.3966	1040 S. West Street	85367-100	Traffic Rated Top
36+10.16, 40.35' Lt.	1300.81	1" Long Service	1679687.0768	1633948.7720	1035 S. West Street	105543-100	
36+61.95, 45.28' Rt.	1301.62	1" Short Service	1679740.6727	1634033.2812	1030 S. West Street	68687-100	
36+83.21, 39.87' Lt.	1301.06	1" Long Service	1679760.1256	1633947.7012	1031 S. West Street	155711-100	
37+64.75, 43.00' Rt.	-	4" Fire Service	1679843.3993	1634028.8245	1030 S. West Street	68687-300	See Plan Sheets for Quantities
34+49.72, 36.34' Lt.	1301.15	1" Long Service	1679926.6686	1633947.7032	1025 S. West Street	75848-100	
38+51.74, 36.34' Lt.	1301.06	1" Long Service	1679928.6909	1633947.6600	1009 S. West Street	87867-100	
39+03.81, 47.11' Rt.	1301.80	1" Short Service	1679982.5177	1634029.9811	1010 S. West Street	83030-100	
40+26.31, 47.00' Rt.	1301.38	1" Short Service	1680104.9879	1634027.2791	1002 S. West Street	91114-100	
41+08.47, 42.86' Lt.	1301.41	1" Long Service	1680185.2281	1633935.7025	1005 S. West Street	65833-100	
43+16.24, 46.89' Rt.	1301.39	1" Short Service	1680394.8541	1634021.0251	942 S. West Street	75354-100	
43+46.06, 47.98' Lt.	1300.84	1" Long Service	1680422.6477	16363925.5439	935 S. West Street	1-114	
44+03.75, 47.63' Rt.	1301.57	1" Short Service	1680482.3607	1634019.9121	934 S. West Street	76088-100	
44+71.97, 48.86' Rt.	1301.03	2" Short Service	1680550.5843	1634019.6942	930 S. West Street	93420-100	
45+99.76, 53.10' Rt.	1300.44	1" Short Service	1680678.4360	1634021.2260	930 S. West Street	64195-100	

†Water Service Line shall be replaced to the existing corporation stop on the existing water main. The exisintg tapping saddle and corporation stop shall be re-used when tieing into the existing 12" water line unless otherwise noted on the plans or instructed by the Engineer.

SUMMARY OF WATERLINE ITEMS
(For Information Only)

WATERLINE LINE NO.	DICL PIPE - 4" WATERLINE RESTRAINED JOINT (L.F.)	DICL PIPE - 6" WATERLINE RESTRAINED JOINT (L.F.)	PIPE - 8" WATERLINE RESTRAINED JOINT (L.F.)	DICL PIPE - 8" WATERLINE RESTRAINED JOINT (L.F.)	PIPE - 12" WATERLINE RESTRAINED JOINT (L.F.)	DICL PIPE- 12" WATERLINE RESTRAINED JOINT (L.F.)	8" VALVE ASSEMBLY ANCHORED (EA.)	12" VALVE ASSEMBLY ANCHORED (EA.)	FIRE HYDRANT (EA.)	FIRE HYDRANT ASSEMBLY (EA.)	REMOVE FIRE HYDRANT ASSEMBLY (EA.)	FILL SAND (FLUSH & VIBRATE) (L.F.)	8" PIPE CUT AND CAP (EA.)	12" PIPE CUT AND CAP (EA.)	6" Plug (EA.)	2" Blow Off Assembly (EA.)	8" AC COUPLER (EA.)	12" AC COUPLER (EA.)	PIPE REMOVED (L.F.)	VALVE BOX ASSEMBLY REMOVED (EA.)
Line 1	-	-	-	-	192.07	9.21	-	1	-	-	-	192.07	-	-	-	-	-	1	195.80	-
Line 2	6.92	-	-	-	1274.10	77.33	5	4	-	2	2	1351.43	-	4	-	-	-	-	675.04	2
Line 3	-	-	-	-	-	17.55	-	-	-	-	-	17.55	-	-	-	-	-	-	17.55	-
Line 4	-	-	76.29	21.74	-	15.00	1	-	-	-	-	113.03	2	-	-	-	-	-	22.00	1
Line 5	-	-	287.34	6.40	-	-	-	-	-	-	-	293.74	-	-	-	2	-	-	-	-
Line 6	-	-	59.91	17.42	-	-	-	-	-	-	-	77.33	2	-	-	-	-	-	8.04	1
Line 7	-	-	66.29	17.37	-	-	-	-	-	-	-	83.66	-	-	-	-	-	-	82.68	1
Line 8	-	-	110.82	17.95	-	-	-	-	-	-	-	128.77	2	-	-	-	1	-	32.75	1
Exist. 12" Main	-	29.60	-	-	-	-	-	-	2	-	2	29.60	-	-	2	-	-	-	-	-
TOTAL	6.92	29.60	600.65	80.88	1466.17	119.09	6	5	2	2	4	2287.18	6	4	2	2	1	1	1033.86	6

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

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

TYLER A. UMMEL — LICENSED — 24843 — 12/31/2020 — KANSAS — PROFESSIONAL ENGINEER

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

PROJ NO: 472-85296
SCALE: NTS
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WATERLINE GENERAL NOTES & SUMMARY OF QUANTITIES

SHEET NO.
221
SHEET 221 OF 262

mtipsmer
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PROJECT CONTROL AND COORDINATE DATA

POINT NO.	BASELINE STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
Water Line 1						
400	19+32.40	43.32	Rt.	12" AC Coupler: Connect to Existing 12" Water Line	1678011.10	1634067.83
401	20+76.31	45.65	Rt.	12" - 1.0 Degree Horizontal P.I.	1678155.02	1634068.37
402	21+05.47	45.61	Rt.	12" - 45 Degree Horizontal Bend	1678184.18	1634067.97
403	21+09.31	41.70	Rt.	12" - 0.3 Degree Vertical P.I.	1678187.98	1634064.01
404	21+22.63	28.16	Rt.	12" - 11.25 Degree Vertical Bend	1678201.12	1634050.31
405	21+24.18	26.59	Rt.	12" - 45 Degree Horizontal Bend w/ an 11.25 Degree Vertical Bend	1678202.65	1634048.72
406	21+25.68	26.57	Rt.	Connect to Existing 12"x12" Tee Connection	1678204.16	1634048.68
Water Line 2						
407	33+35.59	26.62	Rt.	12" - 45 Degree Horizontal Bend : Connect to Existing 12" Water Line	1679414.03	1634021.74
408	33+40.82	31.93	Rt.	12" - 45 Degree Vertical Bend	1679419.38	1634026.93
409	33+42.18	33.32	Rt.	12" - 45 Degree Vertical Bend	1679420.77	1634028.28
410	33+47.44	38.66	Rt.	12" - 45 Degree Vertical Bend	1679426.15	1634033.51
411	33+50.13	41.40	Rt.	12" - 45 Degree Vertical Bend	1679428.90	1634036.18
412	33+50.72	42.00	Rt.	12" - 45 Degree Horizontal Bend	1679429.51	1634036.77
413	33+83.15	42.00	Rt.	12" - 4.0 Degree Horizontal P.I.	1679461.93	1634036.04
414	34+20.77	39.37	Rt.	12" - 4.0 Degree Horizontal P.I.	1679499.48	1634032.56
415	35+05.16	39.40	Rt.	12"x8" Cross Connection Connecting 8" Water Line 5 (E & W)	1679583.79	1634030.73
416	35+17.19	39.39	Rt.	12" - 4.0 Degree Horizontal P.I.	1679595.82	1634030.46
417	35+68.80	43.00	Rt.	12" - 4.0 Degree Horizontal P.I.	1679647.50	1634032.98
418	37+69.13	43.00	Rt.	12" 1.1 Degree Vertical P.I.	1679847.79	1634028.73
419	38+06.23	43.00	Rt.	12" 1.0 Degree Vertical P.I.	1679884.87	1634027.95
420	38+26.23	43.00	Rt.	12" 0.9 Degree Vertical P.I.	1679904.87	1634027.52
421	38+68.36	43.00	Rt.	12" 0.9 Degree Vertical P.I.	1679946.99	1634026.63
422	39+87.91	43.00	Rt.	12" 0.8 Degree Vertical P.I.	1680066.51	1634024.09
423	40+20.72	43.00	Rt.	12" - 4.0 Degree Horizontal P.I.	1680099.31	1634023.40
424	40+84.61	38.53	Rt.	12" - 4.0 Degree Horizontal P.I.	1680163.10	1634017.58
425	40+85.87	38.53	Rt.	12" - 0.8 Degree Vertical P.I.	1680164.36	1634017.55
426	40+90.87	38.53	Rt.	12"x8" Cross Connection Connecting 8" Water Line 6 (W) & Water Line 7 (E)	1680169.36	1634017.45
427	41+32.76	38.53	Rt.	12" - 45 Degree Vertical Bend	1680211.24	1634016.56
428	41+37.03	38.53	Rt.	12" - 45 Degree Vertical Bend	1680215.50	1634016.47
429	41+76.64	38.53	Rt.	12" - 45 Degree Vertical Bend	1680255.11	1634015.63
430	41+80.91	38.53	Rt.	12" - 45 Degree Vertical Bend	1680259.37	1634015.54
431	41+85.25	38.53	Rt.	12" - 4.0 Degree Horizontal P.I.	1680263.71	1634015.45
432	42+49.13	43.00	Rt.	12" - 4.0 Degree Horizontal P.I.	1680327.67	1634018.56
433	43+18.95	43.00	Rt.	12" - 1.0 Degree Horizontal P.I.	1680397.47	1634017.08
434	45+71.07	47.49	Rt.	12"x8" Tee Connection Connecting 8" Water Line 8 (W)	1680649.64	1634016.22
435	45+84.47	47.73	Rt.	12" - 45 Degree Vertical Bend	1680663.04	1634016.18
436	45+89.01	47.81	Rt.	12" - 45 Degree Vertical Bend	1680667.58	1634016.16
437	46+01.02	48.02	Rt.	12" - 45 Degree Horizontal Bend	1680679.60	1634016.12
438	46+09.74	39.51	Rt.	12" - 45 Degree Horizontal Bend	1680688.13	1634007.43
439	46+25.15	39.69	Rt.	12" - 45 Degree Vertical Bend	1680703.54	1634007.27
440	46+29.98	39.74	Rt.	12" - 45 Degree Vertical Bend	1680708.37	1634007.23
441	46+69.51	40.19	Rt.	12" - 45 Degree Horizontal Bend	1680747.90	1634006.84
442	46+74.57	35.25	Rt.	12" - 45 Degree Horizontal Bend	1680752.85	1634001.79
Water Line 3						
443	21+77.76	43.12	Lt.	Connect to Existing 12" Water Line	1678254.92	1633978.14
444	21+77.77	41.14	Lt.	12" - 11.25 Degree Vertical Bend	1678254.97	1633980.12
445	21+77.78	38.17	Lt.	12" - 11.25 Degree Vertical Bend	1678255.05	1633983.09
446	21+77.80	30.12	Lt.	12" - 11.25 Degree Vertical Bend	1678255.26	1633991.13
447	21+77.82	27.15	Lt.	12" - 11.25 Degree Vertical Bend	1678255.34	1633994.10
448	21+77.82	25.57	Lt.	Connect to Existing 12" Water Line	1678255.38	1633995.68
Water Line 4						
449	27+87.68	68.97	Lt.	8" - 45 Degree Horizontal Bend : Connect to Existing 8" Water Line	1678864.11	1633938.53
450	27+82.69	63.97	Lt.	8" - 45 Degree Horizontal Bend w/ an 11.25 Degree Vertical Bend	1678859.23	1633943.65
451	27+82.69	60.54	Lt.	8" - 4.0 Degree Horizontal P.I.	1678859.31	1633947.07
452	27+83.93	42.97	Lt.	8" - 11.25 Degree Vertical Bend	1678860.94	1633964.61
453	27+88.06	15.56	Rt.	8" - 4.0 Degree Horizontal Deflection	1678866.39	1634023.04
454	27+88.06	17.55	Rt.	8" - 11.25 Degree Vertical Bend	1678866.44	1634025.02
455	27+88.07	24.13	Rt.	8" - 11.25 Degree Vertical Bend	1678866.59	1634031.60
456	27+88.07	26.81	Rt.	12"x8" Tee Connection Connecting 12" Water Line (N)	1678866.65	1634034.28
Water Line 5						
457	35+05.03	183.41	Lt.	Install 8" Cap	1679578.94	1633807.97
458	35+05.10	57.91	Lt.	8" - 45 Degree Vertical Bend	1679581.67	1633933.44
459	35+05.11	51.51	Lt.	8" - 45 Degree Vertical Bend	1679581.81	1633939.84
460	35+05.11	38.01	Lt.	8" - 3.0 Degree Vertical P.I.	1679582.11	1633953.34
461	35+05.15	20.52	Rt.	8" - 11.25 Degree Vertical Bend	1679583.38	1634011.85
415	35+05.16	39.40	Rt.	Connect to Proposed 12" Water Line 2	1679583.79	1634030.73
462	35+05.16	37.40	Rt.	8" - 11.25 Degree Vertical Bend	1679583.75	1634028.73
463	35+05.16	41.40	Rt.	8" - 0.5 Degree Vertical P.I.	1679583.83	1634032.73
464	35+05.20	110.33	Rt.	Install 8" Cap	1679585.33	1634101.64
Water Line 6						
465	40+96.53	36.71	Lt.	8" - 45 Degree Horizontal Bend : Connect to Existing 8" Water Line	1680173.42	1633942.10
466	40+91.48	31.66	Lt.	8" - 45 Degree Horizontal Bend	1680168.48	1633947.25
467	40+91.39	21.38	Lt.	8" - 1.7 Degree Vertical P.I.	1680168.61	1633957.54
468	40+91.22	01.46	Lt.	8" - 1.0 Degree Vertical P.I.	1680168.86	1633977.46
469	40+91.05	18.53	Rt.	8" - 1.0 Degree Vertical P.I.	1680169.11	1633997.44
426	40+90.87	38.53	Rt.	Connect to Proposed 12" Water Line 2	1680169.36	1634017.45
Water Line 7						
426	40+90.87	38.53	Rt.	Connect to Proposed 12" Water Line 2	1680169.36	1634017.45
470	40+90.82	45.15	Rt.	8" - 45 Degree Horizontal Bend	1680169.44	1634024.07
471	41+13.94	62.50	Rt.	8" - 45 Degree Horizontal Bend	1680192.92	1634040.92
472	41+13.92	99.89	Rt.	8" - 45 Degree Horizontal Bend	1680193.70	1634078.30
473	41+21.51	107.50	Rt.	8" - 45 Degree Horizontal Bend : Connect to Existing 8" Water Line	1680201.45	1634085.75
Water Line 8						
474	45+77.88	79.03	Lt.	8" AC Coupler - 45 Degree Horizontal Bend: Connect to Existing 8" Water Line	1680653.77	1633889.59
475	45+72.44	73.57	Lt.	8" - 45 Degree Horizontal Bend w/ 2.5 Degree Vertical Deflection	1680648.44	1633895.16
476	45+72.25	55.97	Lt.	8" - 2.5 Degree Vertical P.I.	1680648.62	1633912.76
477	45+71.83	18.99	Lt.	8" - 4.0 Degree Vertical P.I.	1680648.98	1633949.74
478	45+71.19	37.25	Rt.	8" - 4.0 Degree Vertical P.I.	1680649.54	1634005.98
479	45+71.12	43.44	Rt.	8" - 45 Degree Vertical Bend	1680649.60	1634012.17
480	45+71.08	46.49	Rt.	8" - 45 Degree Vertical Bend	1680649.63	1634015.22
434	45+71.07	47.49	Rt.	Connect to Proposed 12" Water Line 2	1680649.64	1634016.22

PROJECT CONTROL AND COORDINATE DATA

POINT NO.	BASELINE STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
Pipe Cut & Caps						
482	21+98.28	25.88	Rt.	6" Plug	1678276.99	1634046.65
483	27+46.64	26.84	Rt.	6" Plug	1678825.23	1634035.24
485	27+87.69	66.97	Lt.	8" Pipe Cut and Cap: Water Line 4	1678864.16	1633940.53
486	27+93.17	21.83	Rt.	8" Pipe Cut and Cap: Water Line 4	1678871.64	1634029.19
487	34+66.78	25.94	Rt.	12" Pipe Cut and Cap: Water Line 2	1679545.17	1634018.10
489	40+85.97	25.38	Rt.	12" Pipe Cut and Cap: Water Line 2	1680164.18	1634004.40
490	40+96.51	34.71	Lt.	8" Pipe Cut and Cap: Water Line 6	1680173.44	1633944.10
491	40+96.04	19.46	Rt.	8" Pipe Cut and Cap: Water Line 6	1680174.12	1633998.26
493	45+77.14	49.29	Lt.	8" Pipe Cut and Cap: Water Line 8	1680653.65	1633919.34
494	45+74.85	28.04	Rt.	8" Pipe Cut and Cap: Water Line 8	1680653.01	1633996.69
495	45+76.78	31.12	Rt.	12" Pipe Cut and Cap: Water Line 2	1680654.99	1633999.74
496	46+72.53	35.21	Rt.	12" Pipe Cut and Cap: Water Line 2	1680750.81	1634001.79
Fire Hydrant Installations						
481	22+16.05	25.94	Rt.	Fire Hydrant Installation	1678294.76	1634046.32
484	27+63.51	26.83	Rt.	Fire Hydrant Installation	1678842.11	1634034.85
488	35+15.44	39.39	Rt.	Fire Hydrant Installation	1679594.08	1634030.50
492	41+68.53	38.53	Rt.	Fire Hydrant Installation	1680247.00	1634015.80

TranSystems
245 NORTH WACO
SUITE 222
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PHONE: 316-303-3000
FAX: 316-462-5629

ALLEN A. UMMEL — LICENSED — 24843 — 12/31/2020 — KANSAS — PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: N.T.S.
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WATERLINE COORDINATE DATA

SHEET NO.
222
SHEET 222 OF 262

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

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LEGEND

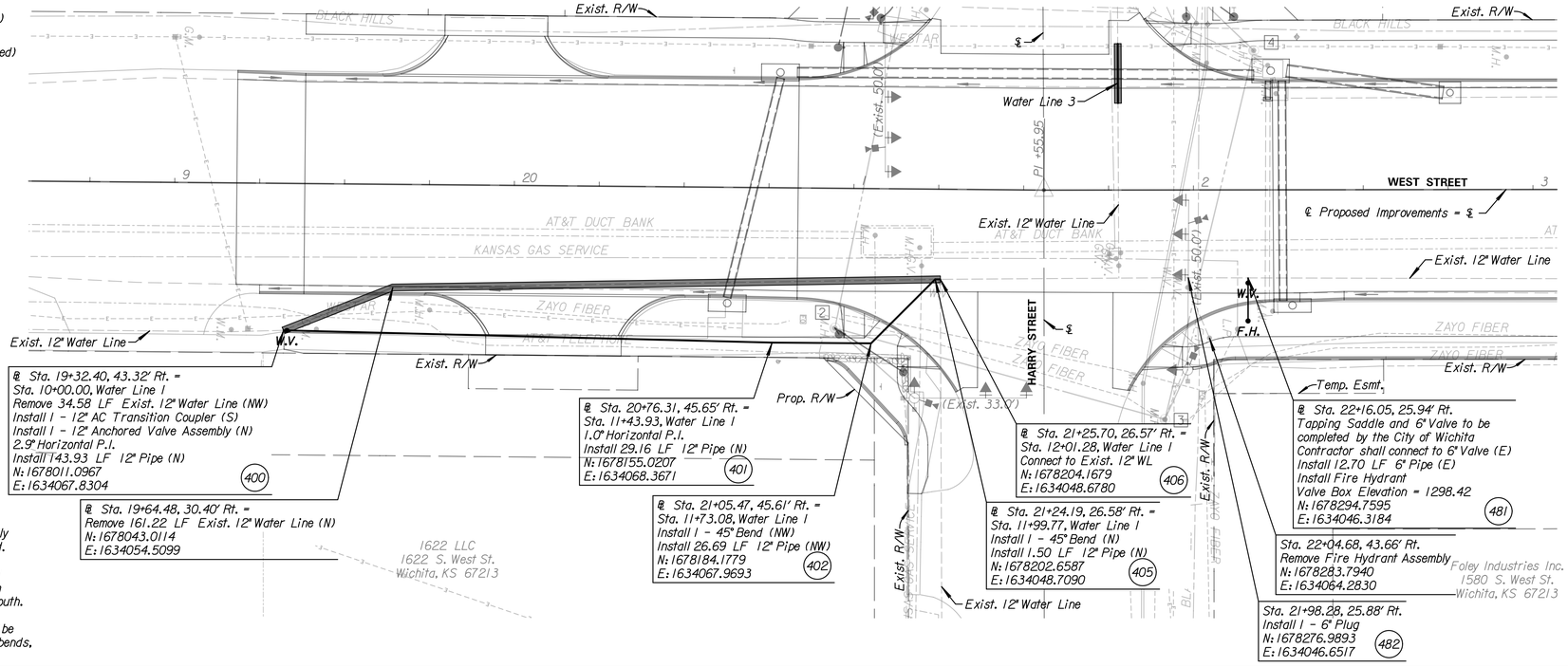
Existing Water Line (Removed)

Existing Water Line (Abandoned)

SCALE

20' 0 20' 40'

1"=20'



@ Sta. 19+32.40, 43.32' Rt. =
Sta. 10+00.00, Water Line 1
Remove 34.58 LF Exist. 12" Water Line (NW)
Install 1 - 12" AC Transition Coupler (S)
Install 1 - 12" Anchored Valve Assembly (N)
2.9° Horizontal P.I.
Install 143.93 LF 12" Pipe (N)
N: 1678011.0967
E: 1634067.8304 (400)

@ Sta. 19+64.48, 30.40' Rt. =
Remove 161.22 LF Exist. 12" Water Line (N)
N: 1678043.0114
E: 1634054.5099

@ Sta. 20+76.31, 45.65' Rt. =
Sta. 11+43.93, Water Line 1
1.0° Horizontal P.I.
Install 29.16 LF 12" Pipe (N)
N: 1678155.0207
E: 1634068.3671 (401)

@ Sta. 21+05.47, 45.61' Rt. =
Sta. 11+73.08, Water Line 1
Install 1 - 45° Bend (NW)
Install 26.69 LF 12" Pipe (NW)
N: 1678184.1779
E: 1634067.9693 (402)

@ Sta. 21+24.19, 26.58' Rt. =
Sta. 11+99.77, Water Line 1
Install 1 - 45° Bend (N)
Install 1.50 LF 12" Pipe (N)
N: 1678202.6587
E: 1634048.7090 (405)

@ Sta. 21+25.70, 26.57' Rt. =
Sta. 12+01.28, Water Line 1
Connect to Exist. 12" WL
N: 1678204.1679
E: 1634048.6780 (406)

@ Sta. 22+16.05, 25.94' Rt.
Tapping Saddle and 6" Valve to be completed by the City of Wichita
Contractor shall connect to 6" Valve (E)
Install 12.70 LF 6" Pipe (E)
Install Fire Hydrant
Valve Box Elevation = 1298.42
N: 1678294.7595
E: 1634046.3184 (481)

Sta. 22+04.68, 43.66' Rt.
Remove Fire Hydrant Assembly
N: 1678283.7940
E: 1634064.2830

Sta. 21+98.28, 25.88' Rt.
Install 1 - 6" Plug
N: 1678276.9893
E: 1634046.6517 (482)

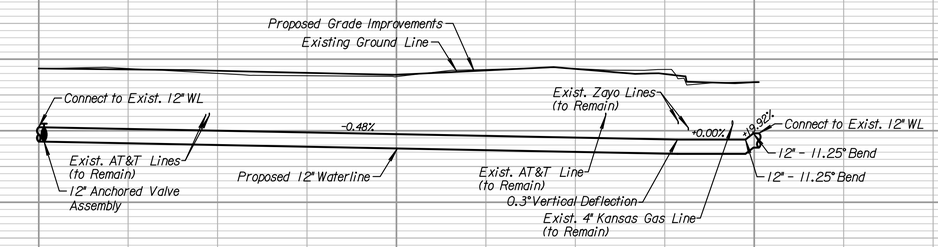
Note:
For Water Line 3 information and details, See Sheets 227

It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



	400	403	404	405	406
	1,295.24 +00.00	1,294.40	P.I. Elev. = 1,294.38, +97.56	P.I. Elev. = 1,294.82, +99.77	1,294.82 +01.28
	Connect to Exist. 12" WL	P.I. Elev. = 1,294.38, +78.57			Connect to Exist. 12" WL
	1,295.12				
	1,295.00				
	1,294.88				
	1,294.76				
	1,294.64				
	1,294.52				

1,315 1,310 1,305 1,300 1,295 1,290 1,285 1,280 1,275 1,270

10+00 11+00 12+00

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

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PHONE: 316-303-3000
FAX: 316-462-5629

TYLER A. UMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
WATER LINE 1

SHEET NO.

223

SHEET 223 OF 262

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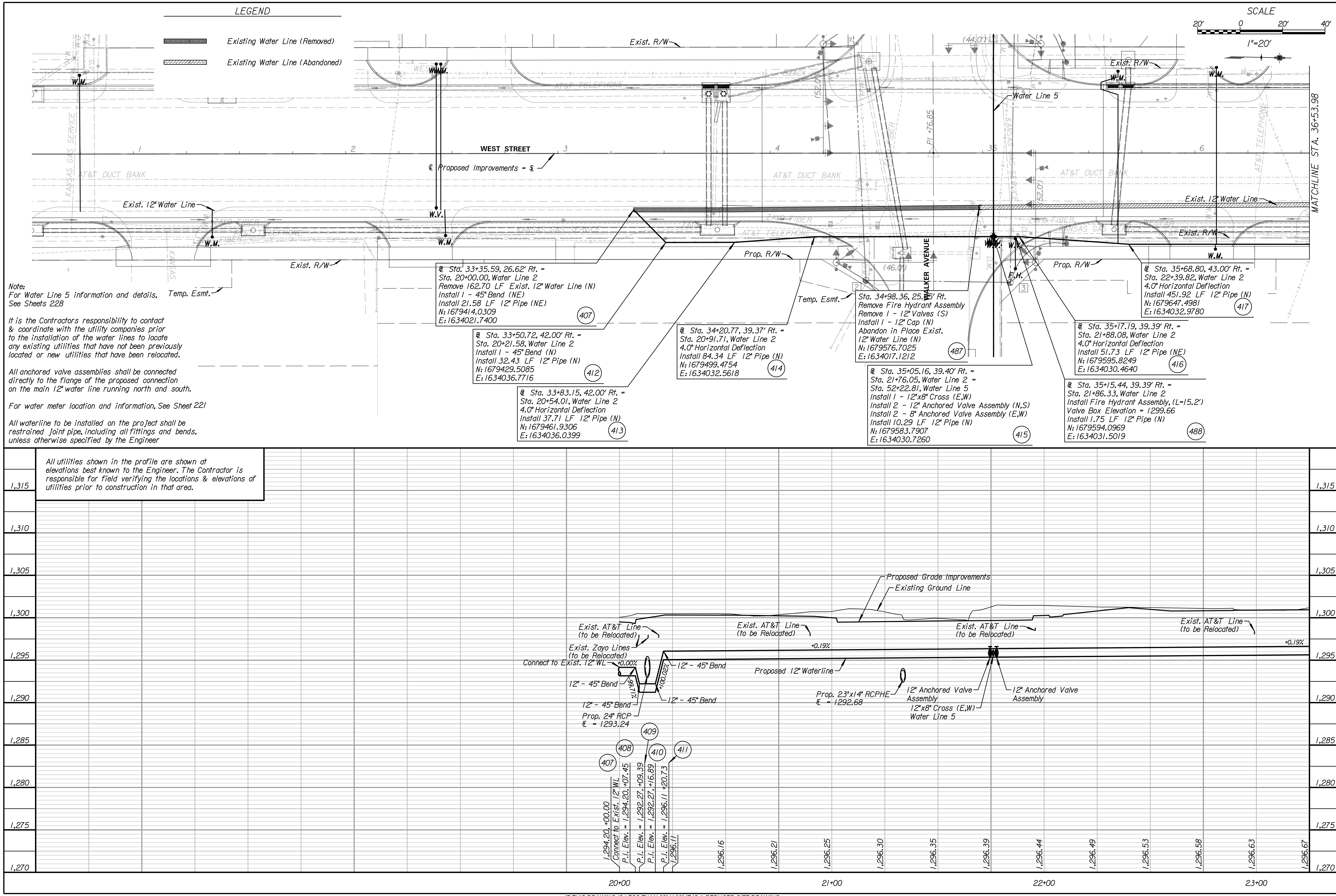

Note:
For Water Line 5 information and details, See Sheets 228

It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

For water meter location and information, See Sheet 221

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

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

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FAX: 316-462-5629

TYLER A. UMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS
CITY OF WICHITA

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET WATER LINE 2

SHEET NO.
224

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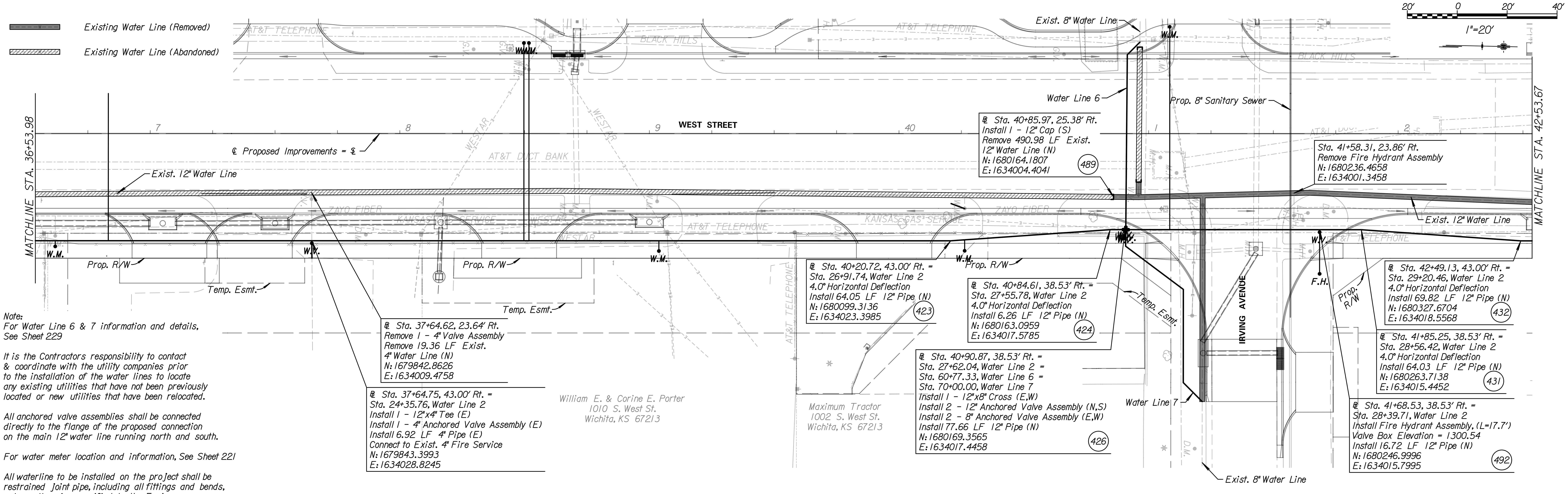
LEGEND

Existing Water Line (Removed)

Existing Water Line (Abandoned)



Note:
For Water Line 6 & 7 information and details, See Sheet 229

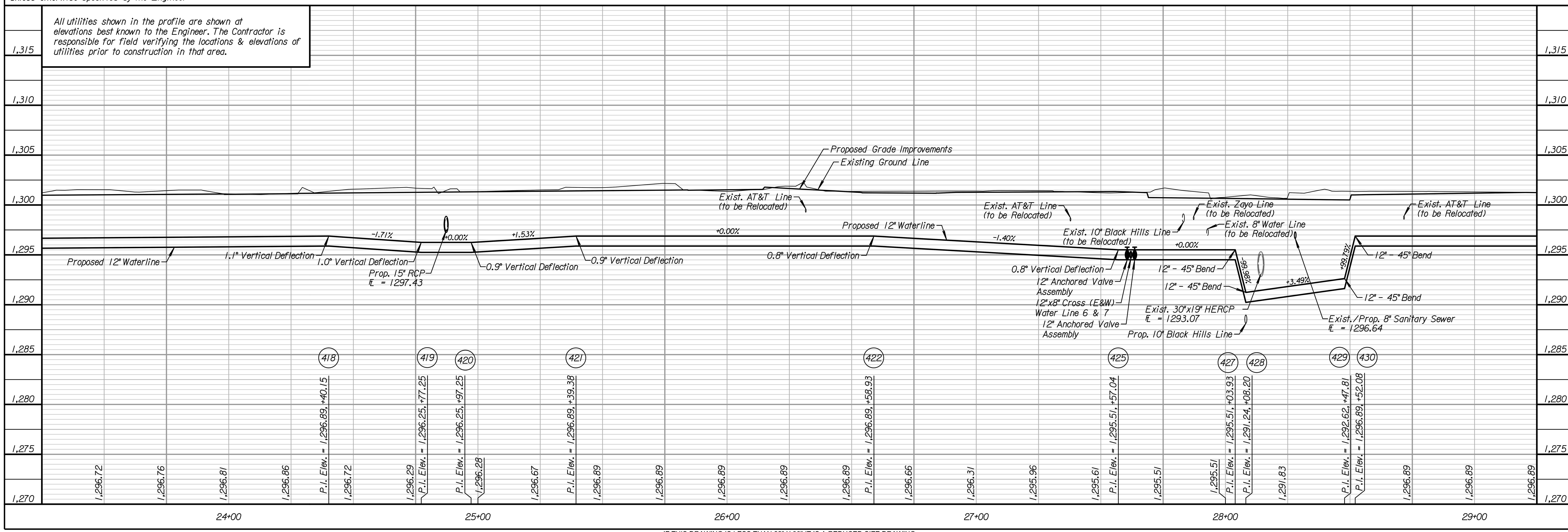
It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

For water meter location and information, See Sheet 221

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



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

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WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

TYLER A. UMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET WATER LINE 2

SHEET NO.
225

LEGEND

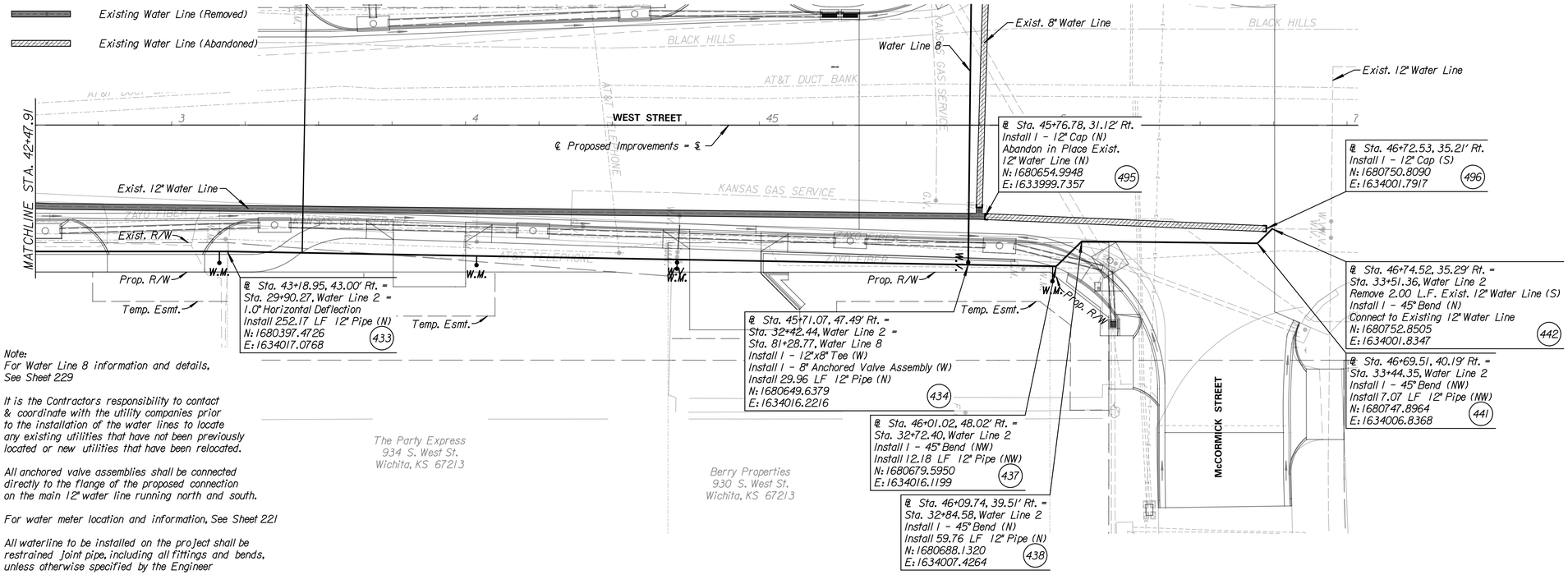
Existing Water Line (Removed)

Existing Water Line (Abandoned)

SCALE

20' 0 20' 40'

1"=20'



Note:
For Water Line 8 information and details, See Sheet 229

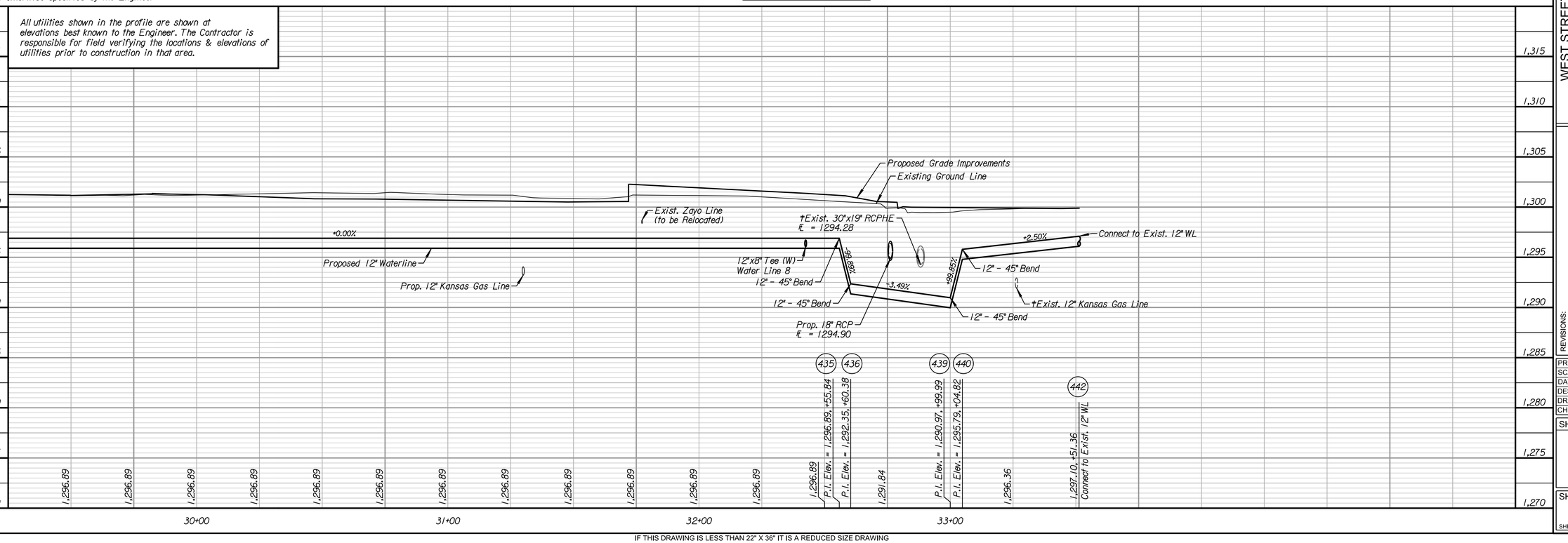
It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

For water meter location and information, See Sheet 221

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



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

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FAX: 316-462-5629

TYLER A. UMMEL LICENSED 24843 12/31/2020 KANSAS PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

DESCRIPTION	DATE	MARK

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
WATER LINE 2

SHEET NO.

226

SHEET 226 OF 262

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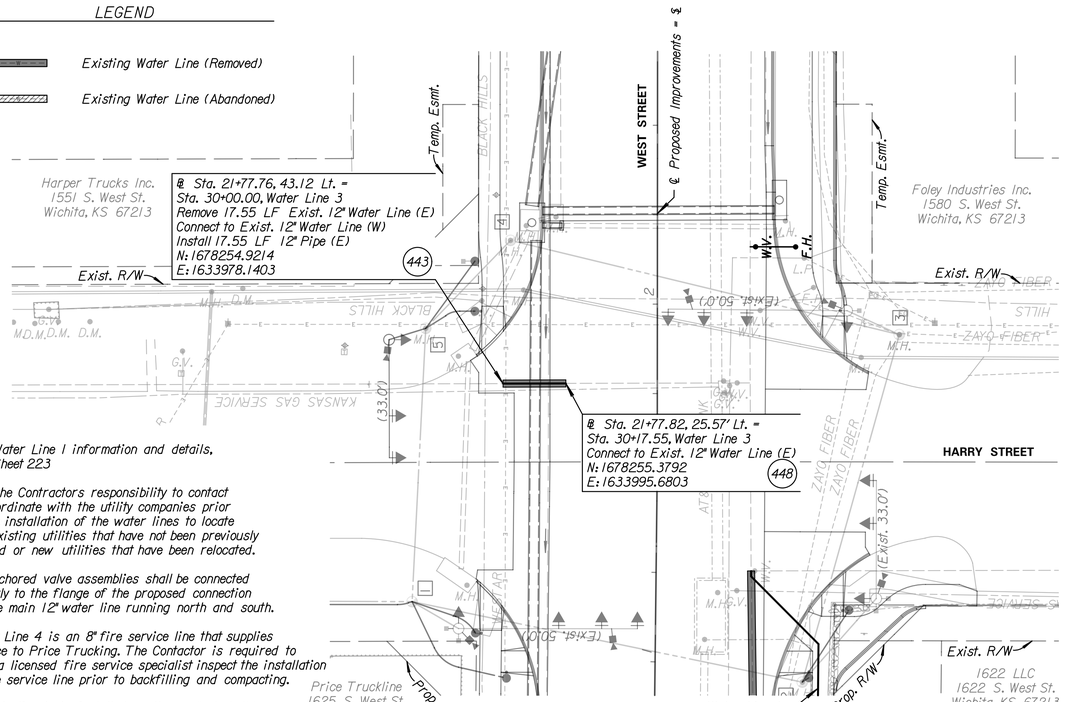
LEGEND

Existing Water Line (Removed)

Existing Water Line (Abandoned)



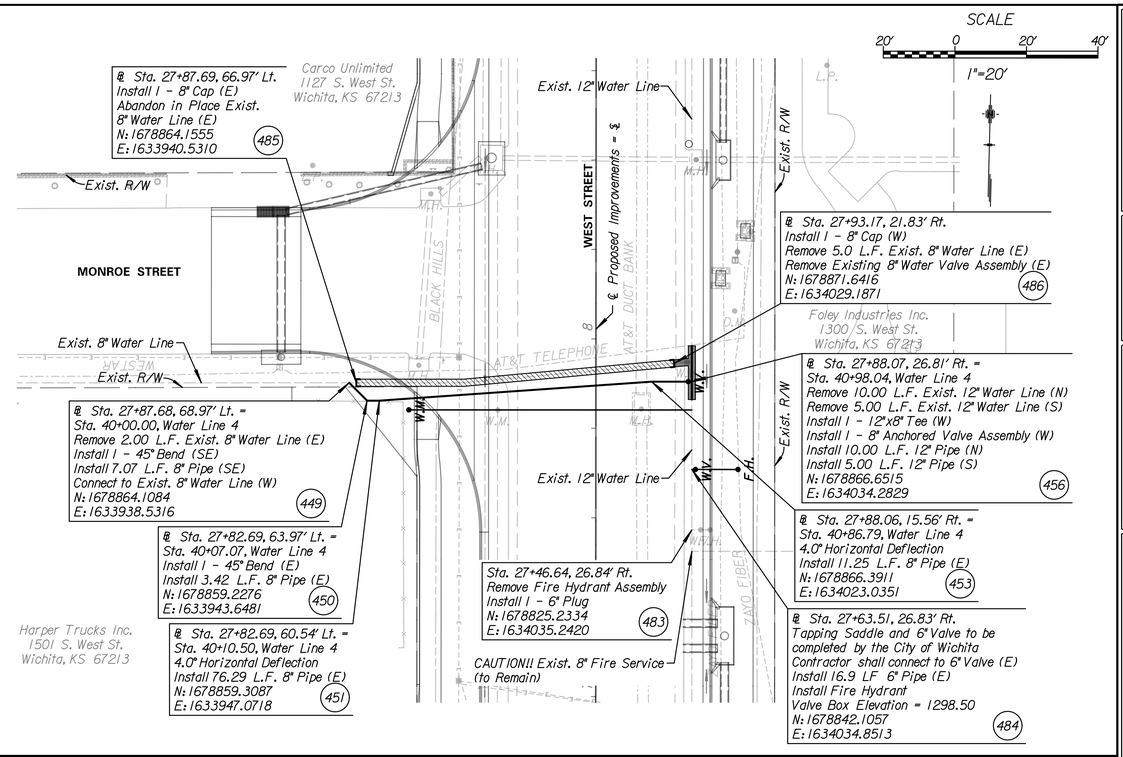
Note:
For Water Line 1 information and details, See Sheet 223

It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

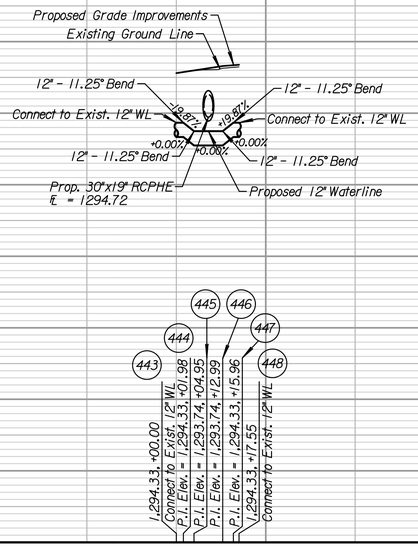
All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

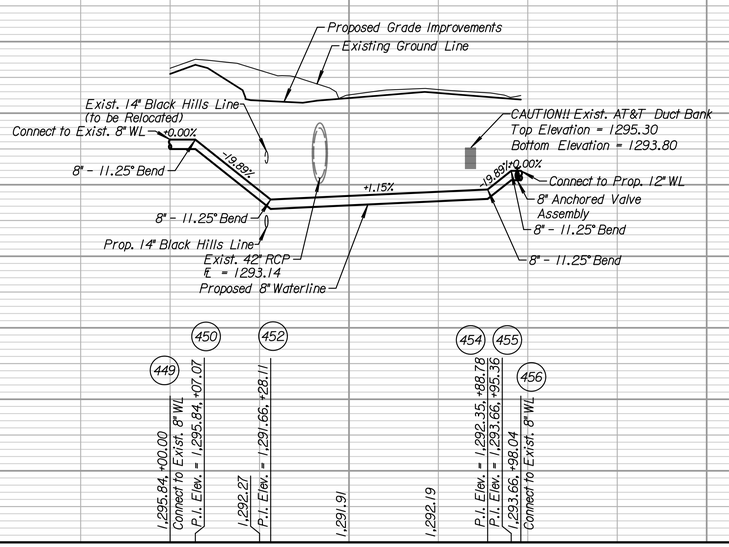
Water Line 4 is an 8" fire service line that supplies service to Price Trucking. The Contactor is required to have a licensed fire service specialist inspect the installation of the service line prior to backfilling and compacting.

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer



All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.





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245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

TYLER A. LIMMEL LICENSED 24843 2/25/2020 KANSAS PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:			
	MARK	DATE	DESCRIPTION

PROJ NO:	472-85296
SCALE:	1"=20'
DATE:	2/25/2020
DESIGNED BY:	TAU
DRAWN BY:	TAU
CHECKED BY:	MDB

SHEET TITLE:

WEST STREET
WATER LINE 3 & 4

SHEET NO.

227

SHEET 227 OF 262

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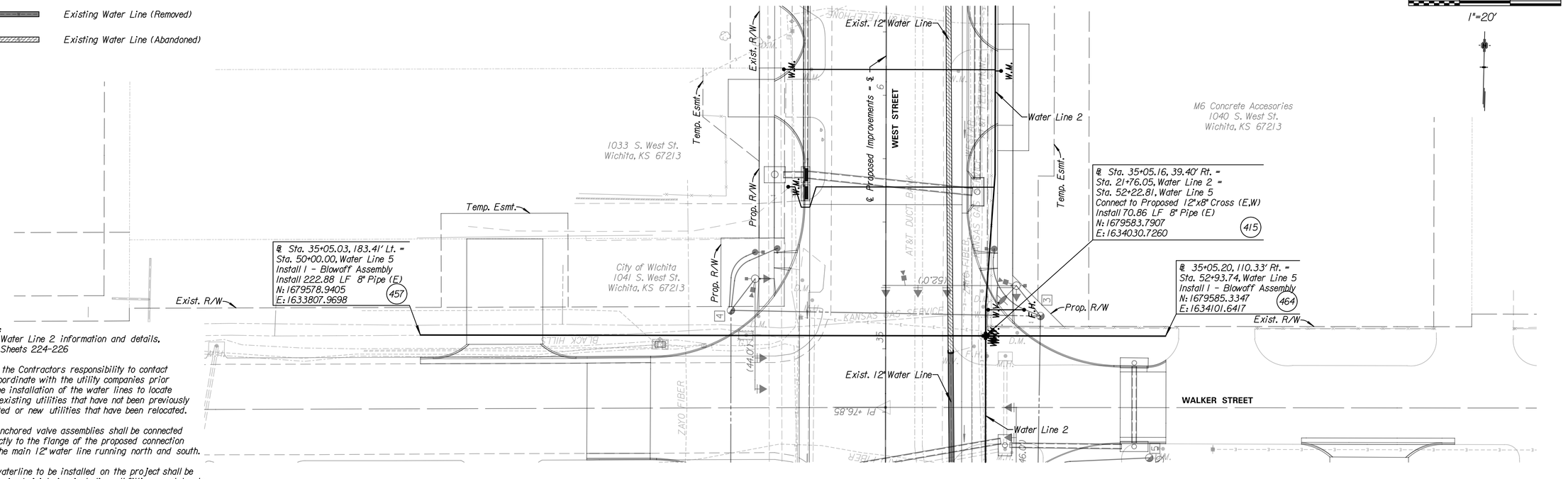
LEGEND

Existing Water Line (Removed)

Existing Water Line (Abandoned)

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



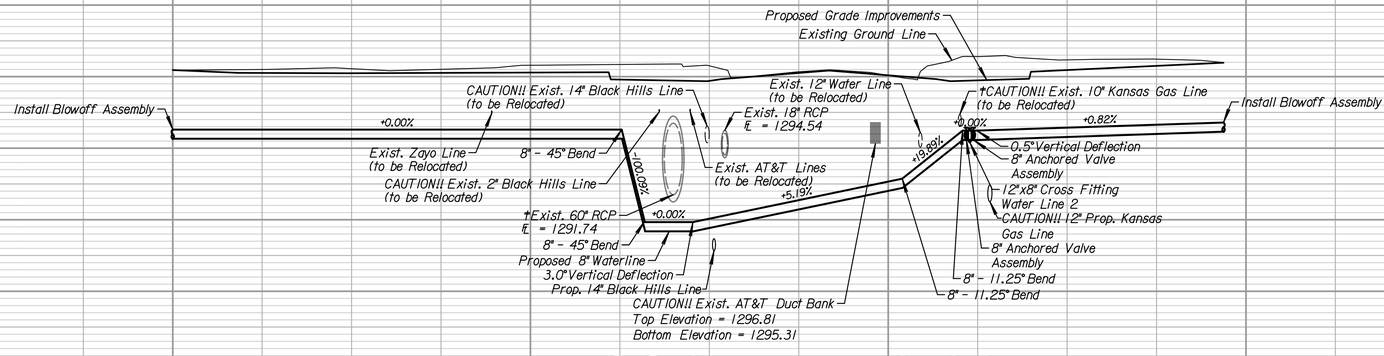
Note:
For Water Line 2 information and details, See Sheets 224-226

It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

TYLER A. UMMEL
LICENSED
24843
2/25/2020
KANSAS
PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:
WEST STREET
WATER LINE 5

SHEET NO.
228
SHEET 228 OF 262

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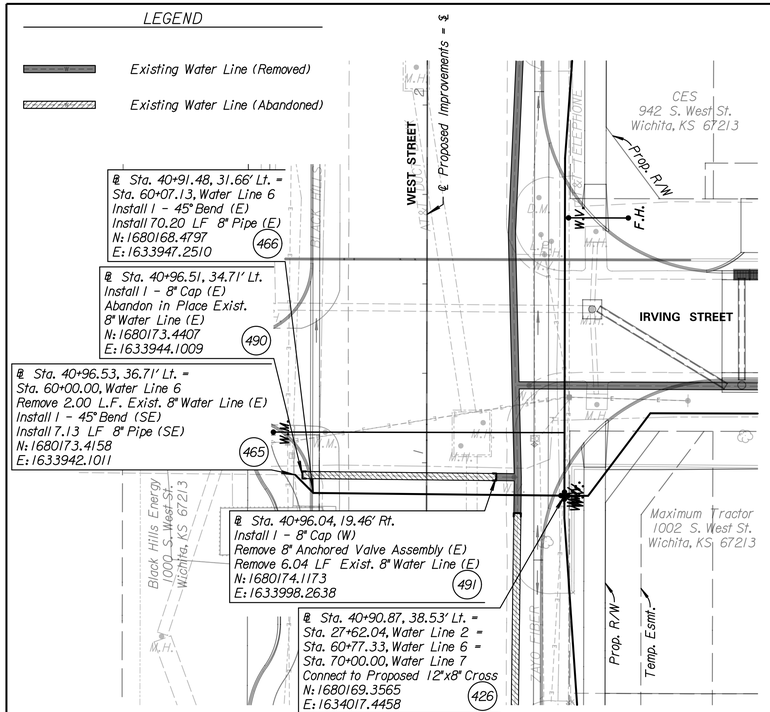
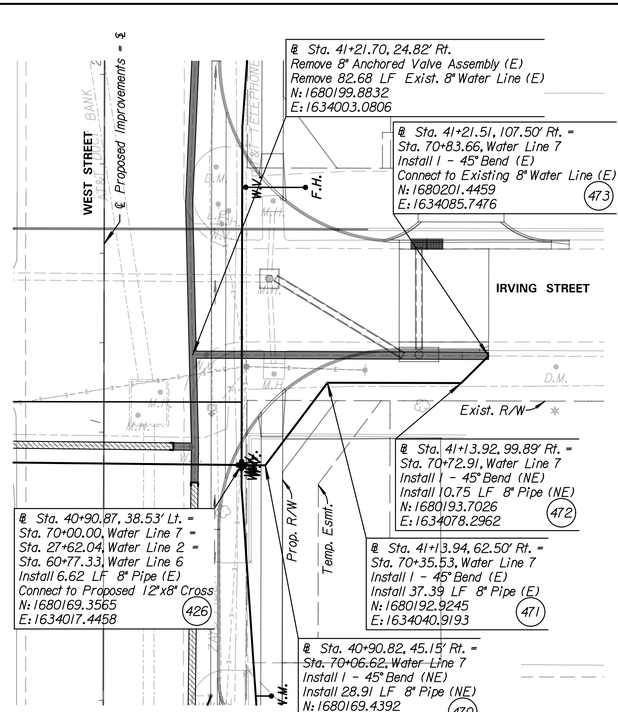
LEGEND

Existing Water Line (Removed)

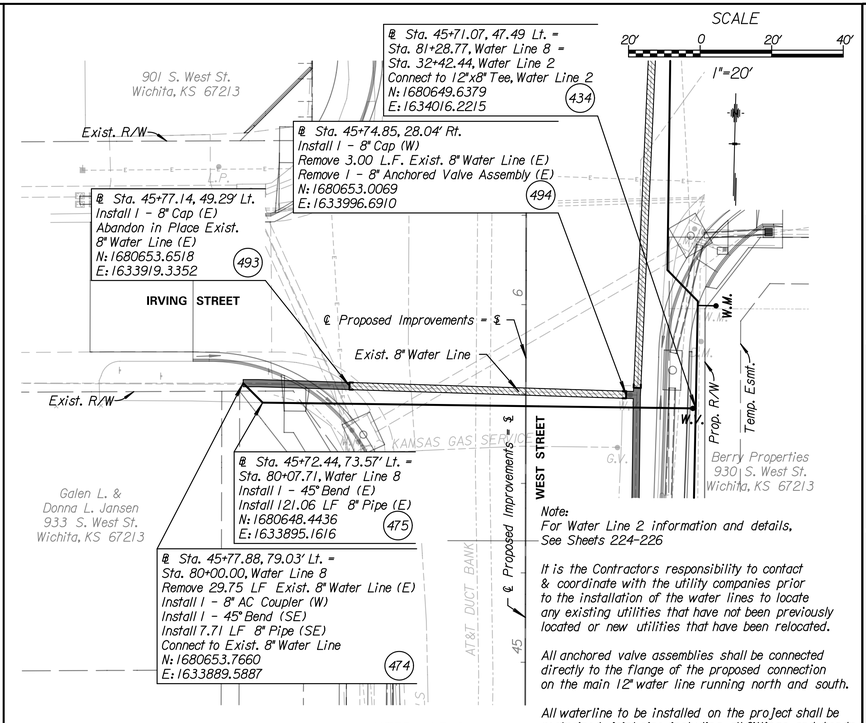
Existing Water Line (Abandoned)



WATER LINE 6



WATER LINE 7



WATER LINE 8

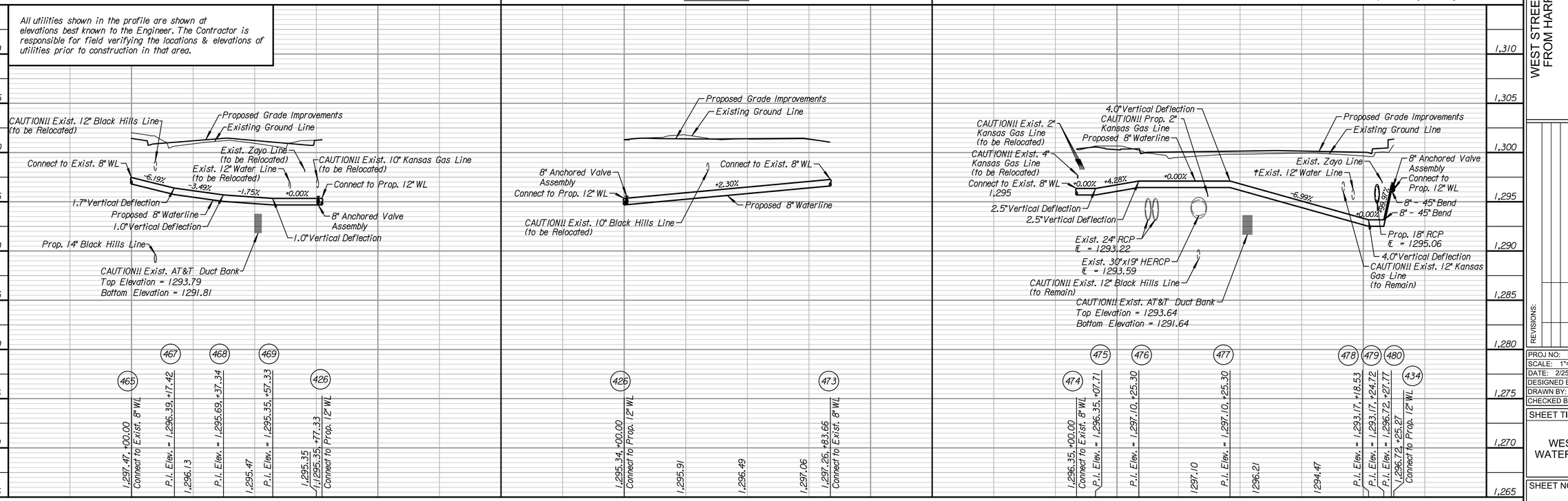
Note:
For Water Line 2 information and details, See Sheets 224-226

It is the Contractors responsibility to contact & coordinate with the utility companies prior to the installation of the water lines to locate any existing utilities that have not been previously located or new utilities that have been relocated.

All anchored valve assemblies shall be connected directly to the flange of the proposed connection on the main 12" water line running north and south.

All waterline to be installed on the project shall be restrained joint pipe, including all fittings and bends, unless otherwise specified by the Engineer

All utilities shown in the profile are shown at elevations best known to the Engineer. The Contractor is responsible for field verifying the locations & elevations of utilities prior to construction in that area.



TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-8629

ALLEN A. LIMMEL
LICENSED
24843
1/25/2020
KANSAS
PROFESSIONAL ENGINEER

CONSULTANTS:

WEST STREET IMPROVEMENTS
FROM HARRY TO KELLOGG

WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-85296
SCALE: 1"=20'
DATE: 2/25/2020
DESIGNED BY: TAU
DRAWN BY: TAU
CHECKED BY: MDB

SHEET TITLE:

WEST STREET
WATER LINES 6, 7, 8

SHEET NO.

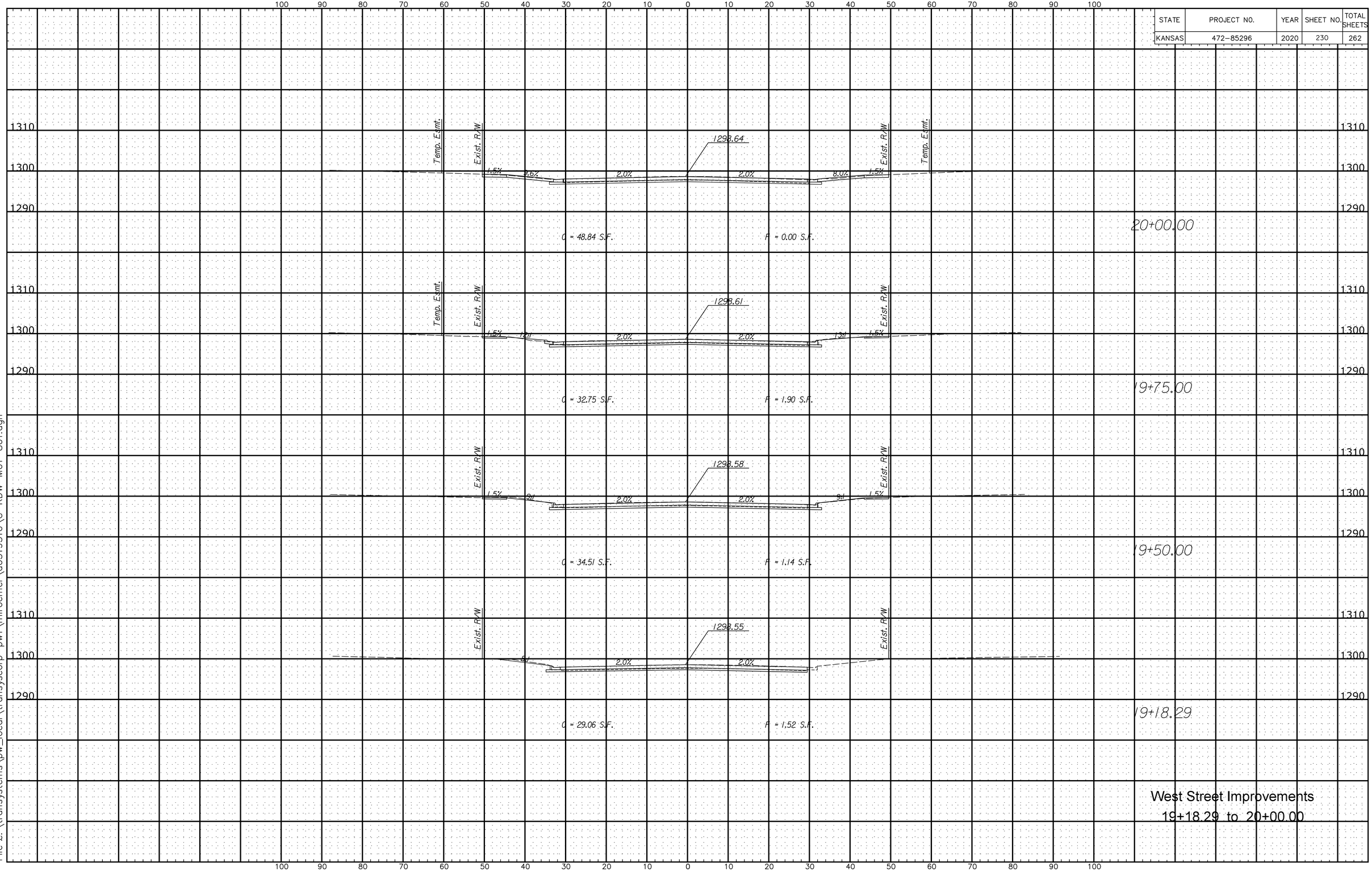
229

SHEET 229 OF 262

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

mlopsmer
2/25/2020 - 1:52:48 PM - c:\transystems\pw_bcs\finance\pcorp-pw1\mlopsmer\d0519510\C-WTR-M01-107.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	230	262



Plotted By: Broad
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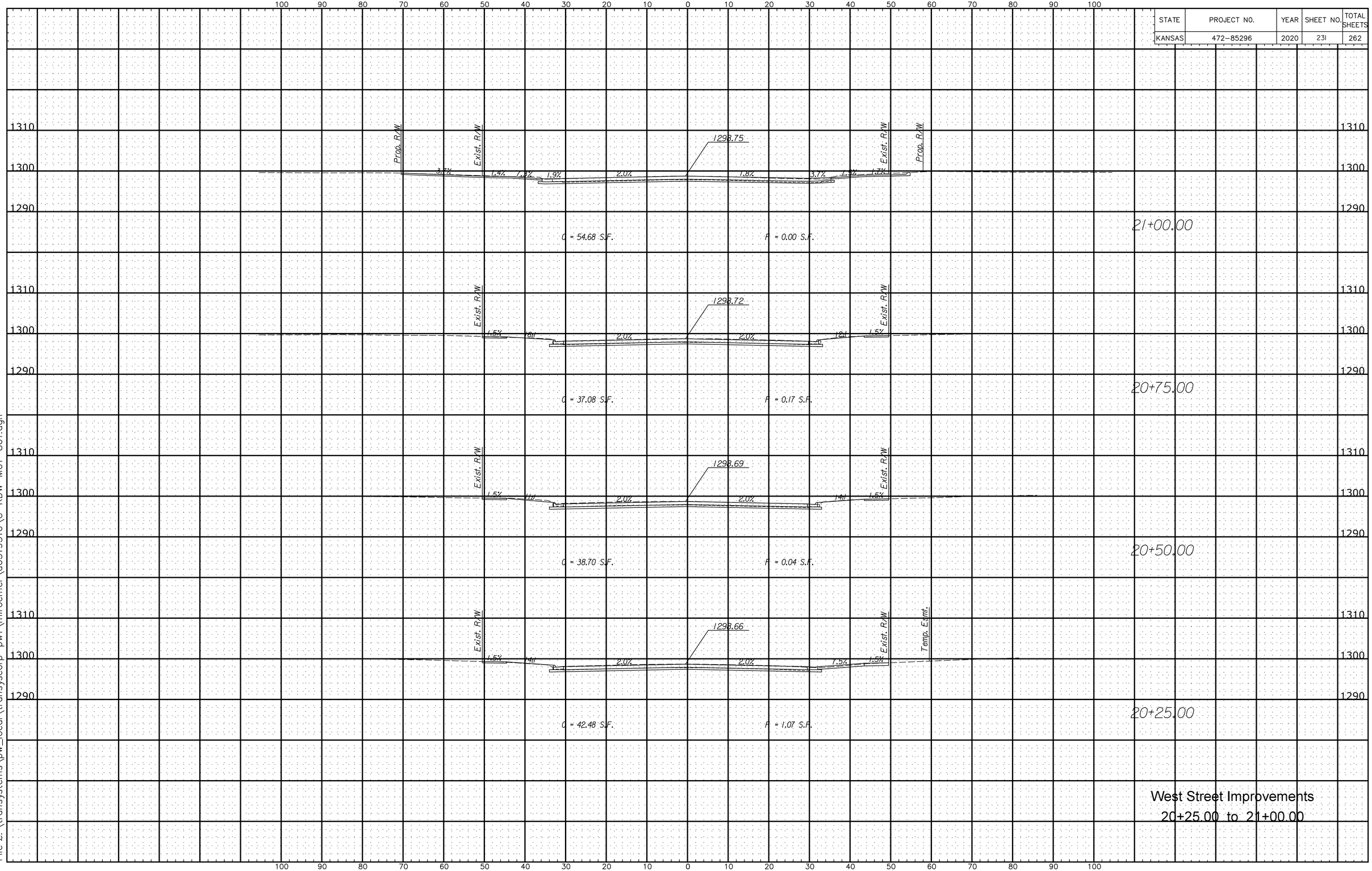
Plotted: 2/25/2020

West Street Improvements
19+18.29 to 20+00.00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	231	262



West Street Improvements
20+25.00 to 21+00.00

Plotted By: Broad
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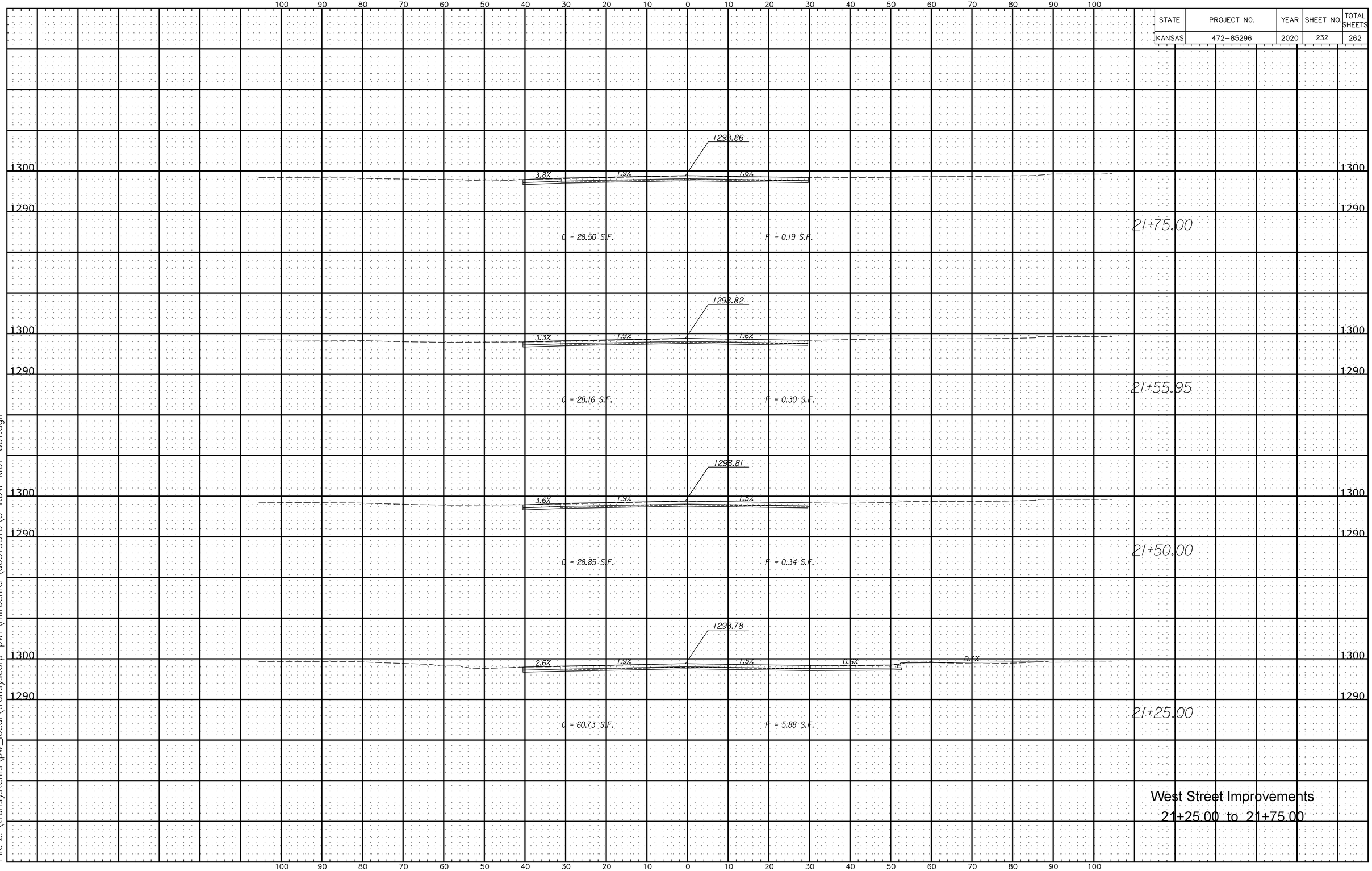
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	232	262



West Street Improvements
21+25.00 to 21+75.00

Plotted: 2/25/2020
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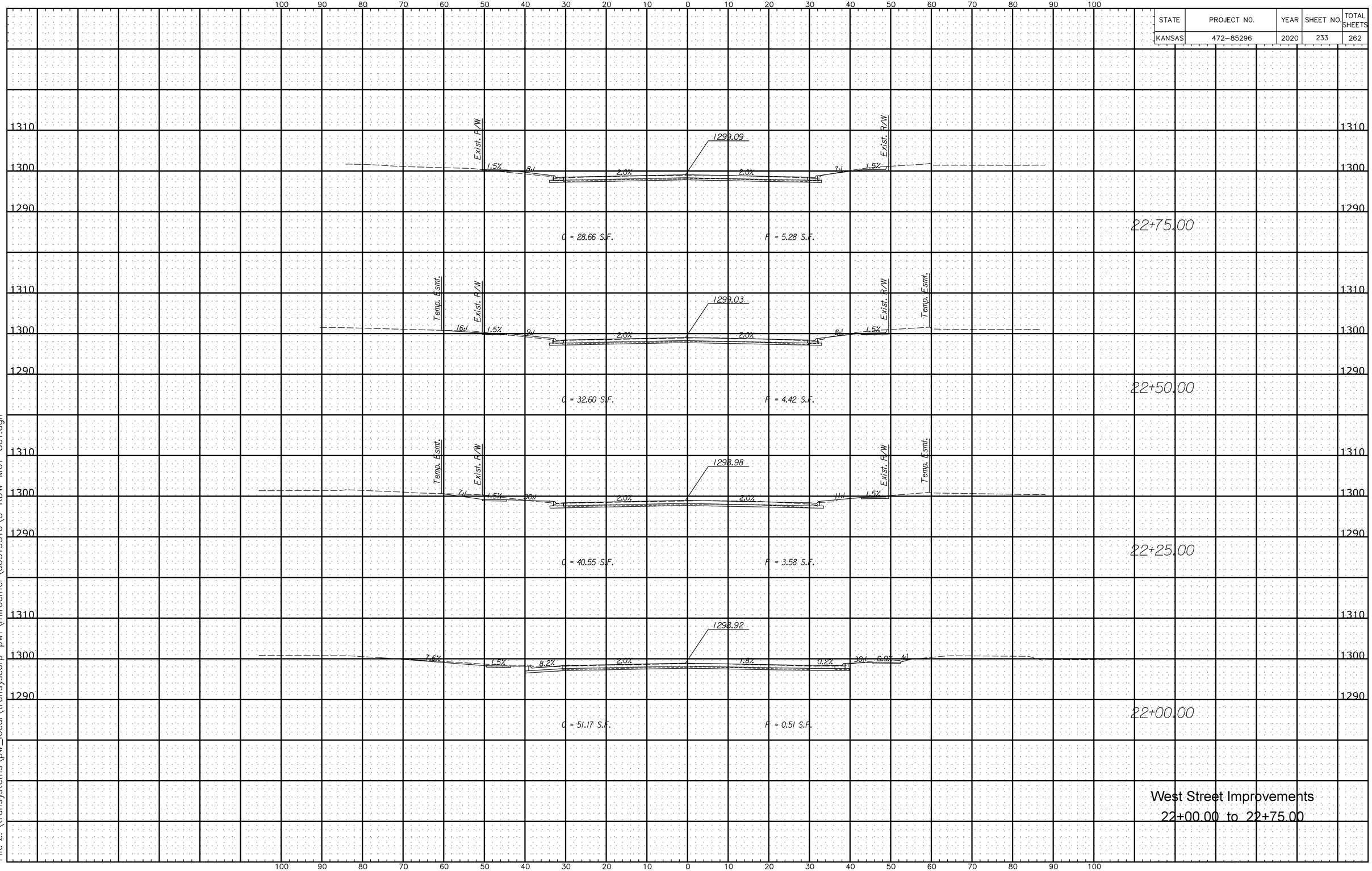
Plotted By: Road

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	233	262



Plotted By: BRoad
Plotted: 2/25/2020
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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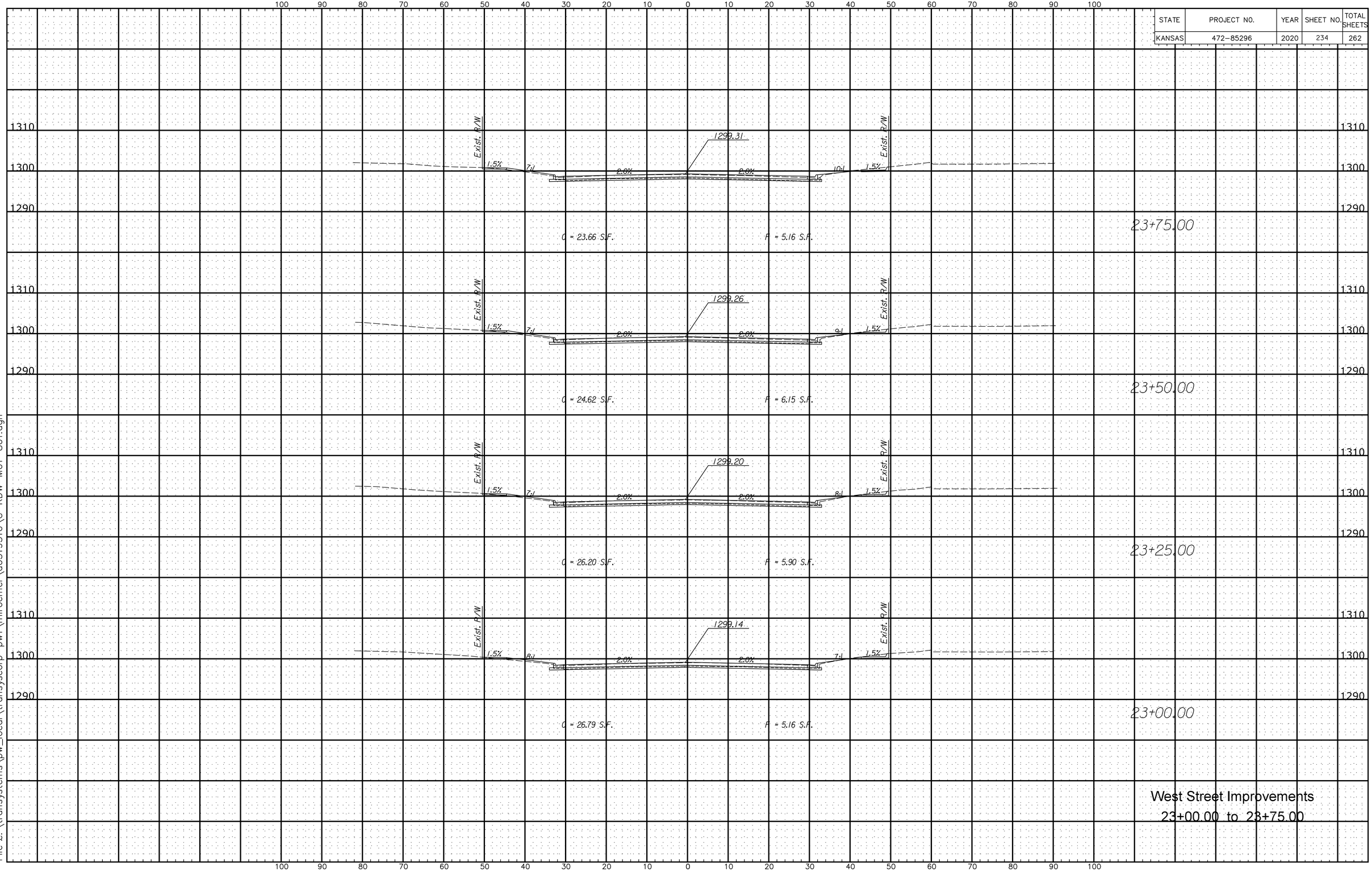

West Street Improvements
23+00.00 to 23+75.00

Plotted By: Road
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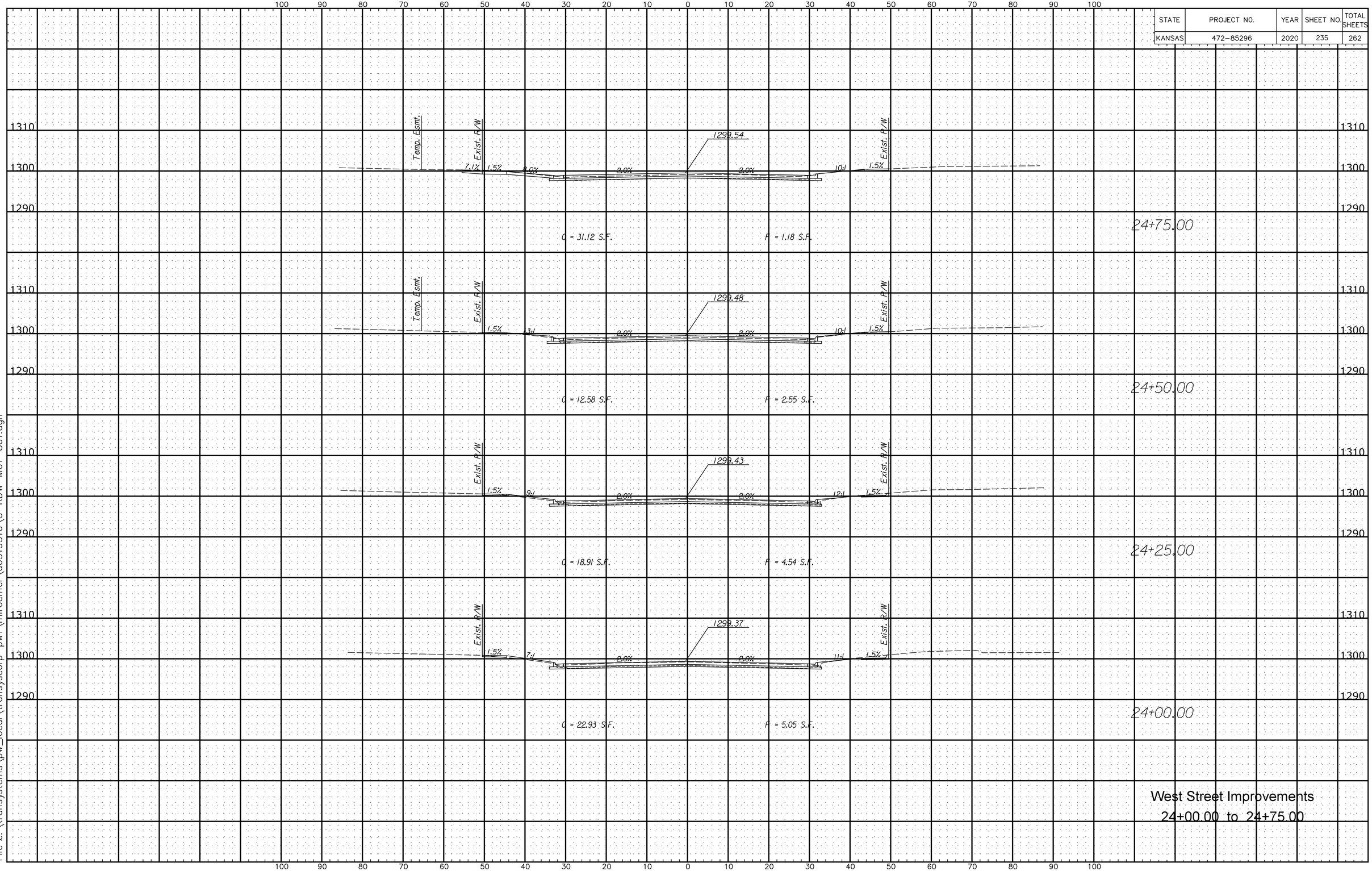
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	235	262



West Street Improvements
24+00.00 to 24+75.00

Plotted By: Broad
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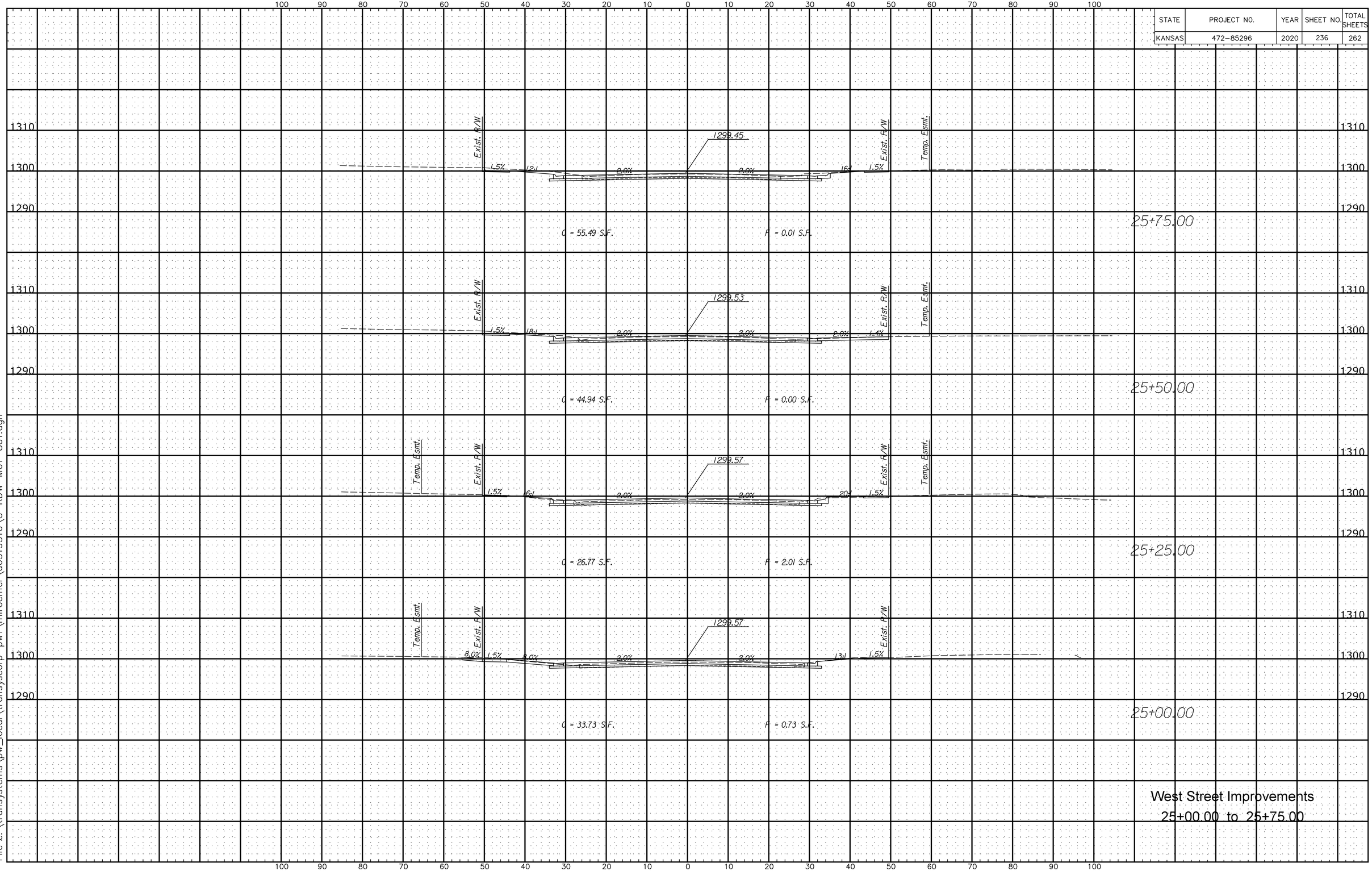
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	236	262



West Street Improvements
25+00.00 to 25+75.00

Plotted BJRoad
Plotted: 2/25/2020
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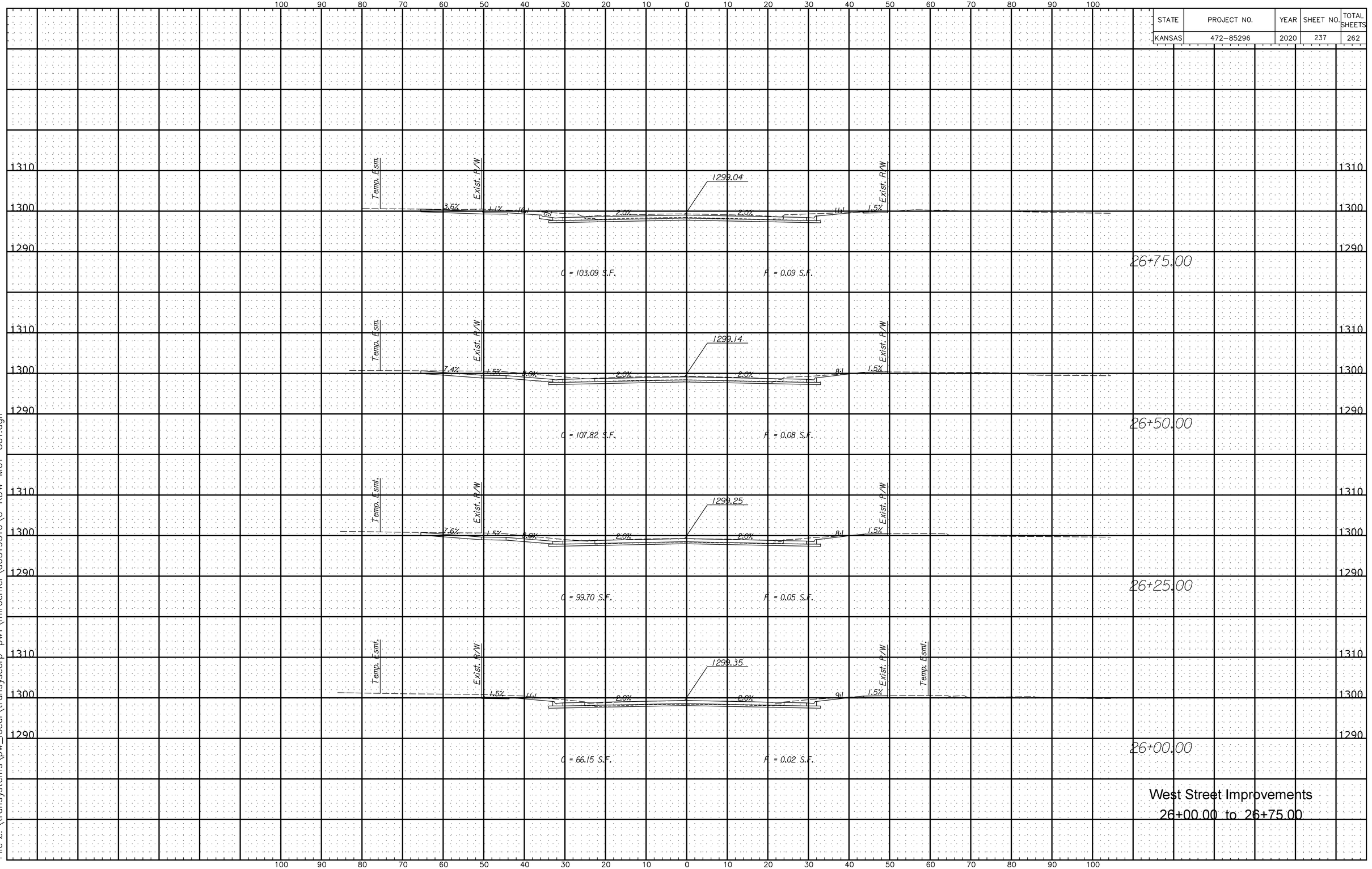
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	237	262



West Street Improvements
26+00.00 to 26+75.00

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Plotted: 2/25/2020

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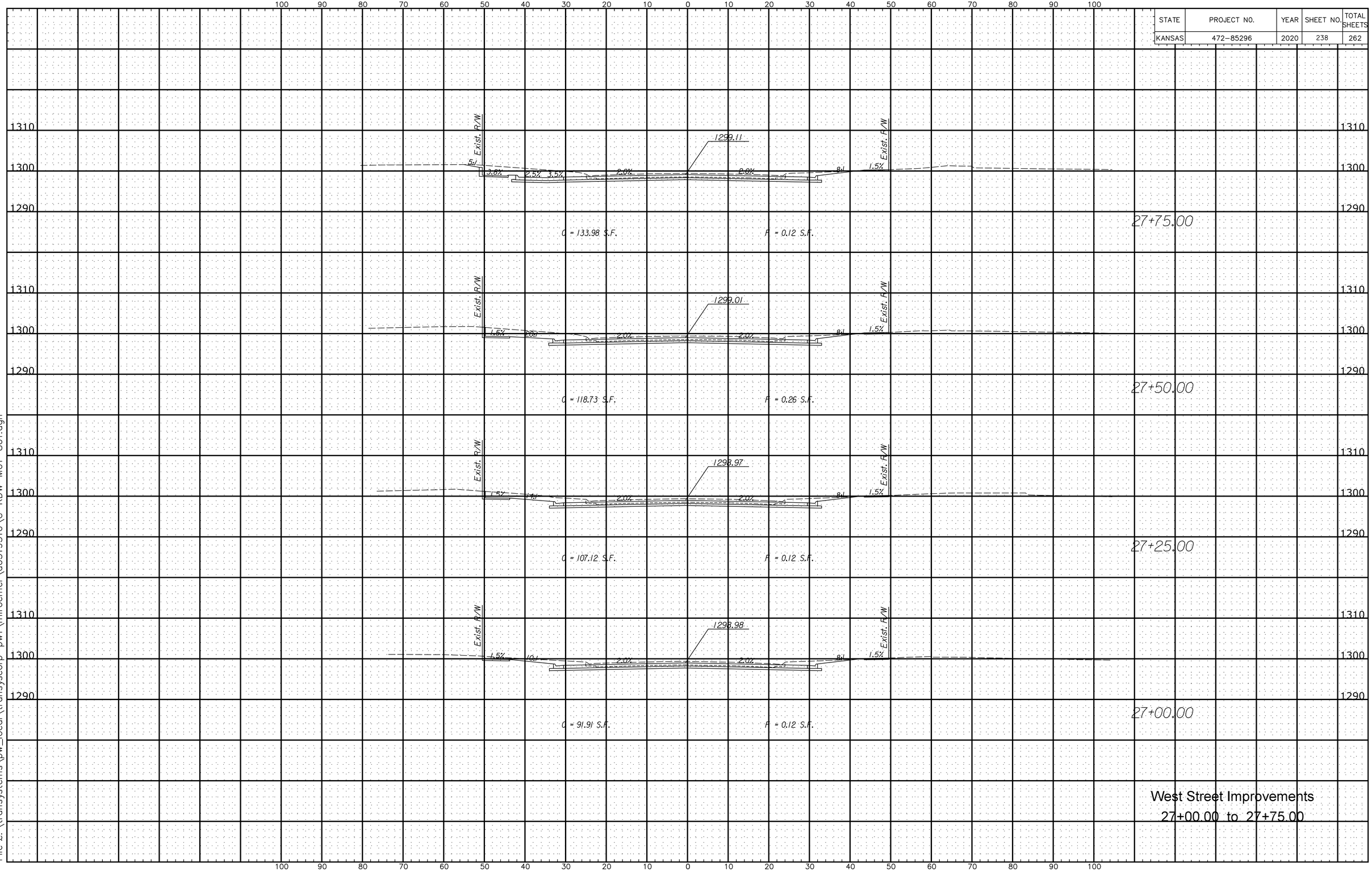
KANSAS	472-85296	2020	238	262



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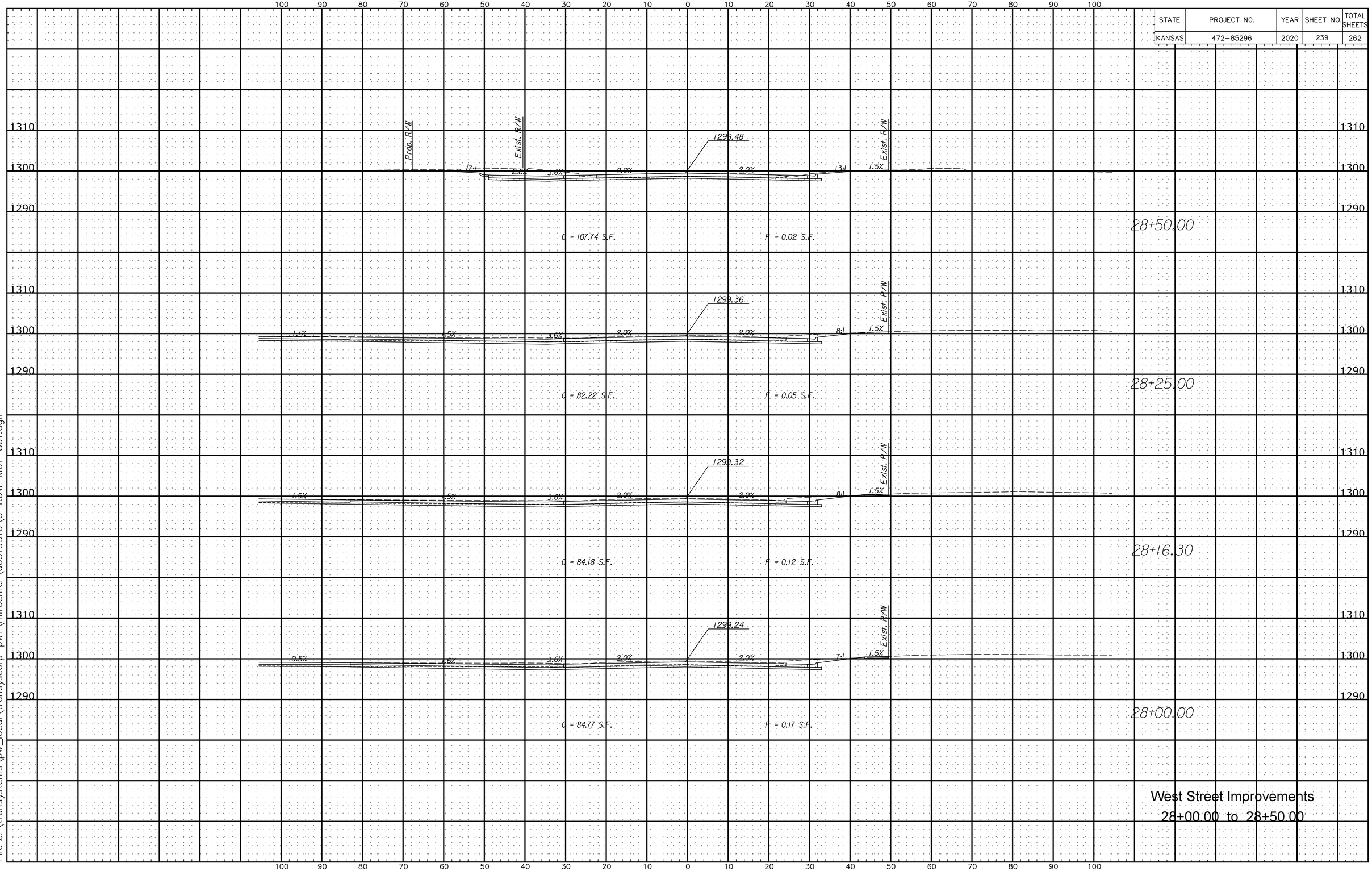
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	239	262



West Street Improvements
28+00.00 to 28+50.00

Plotted By: Broad
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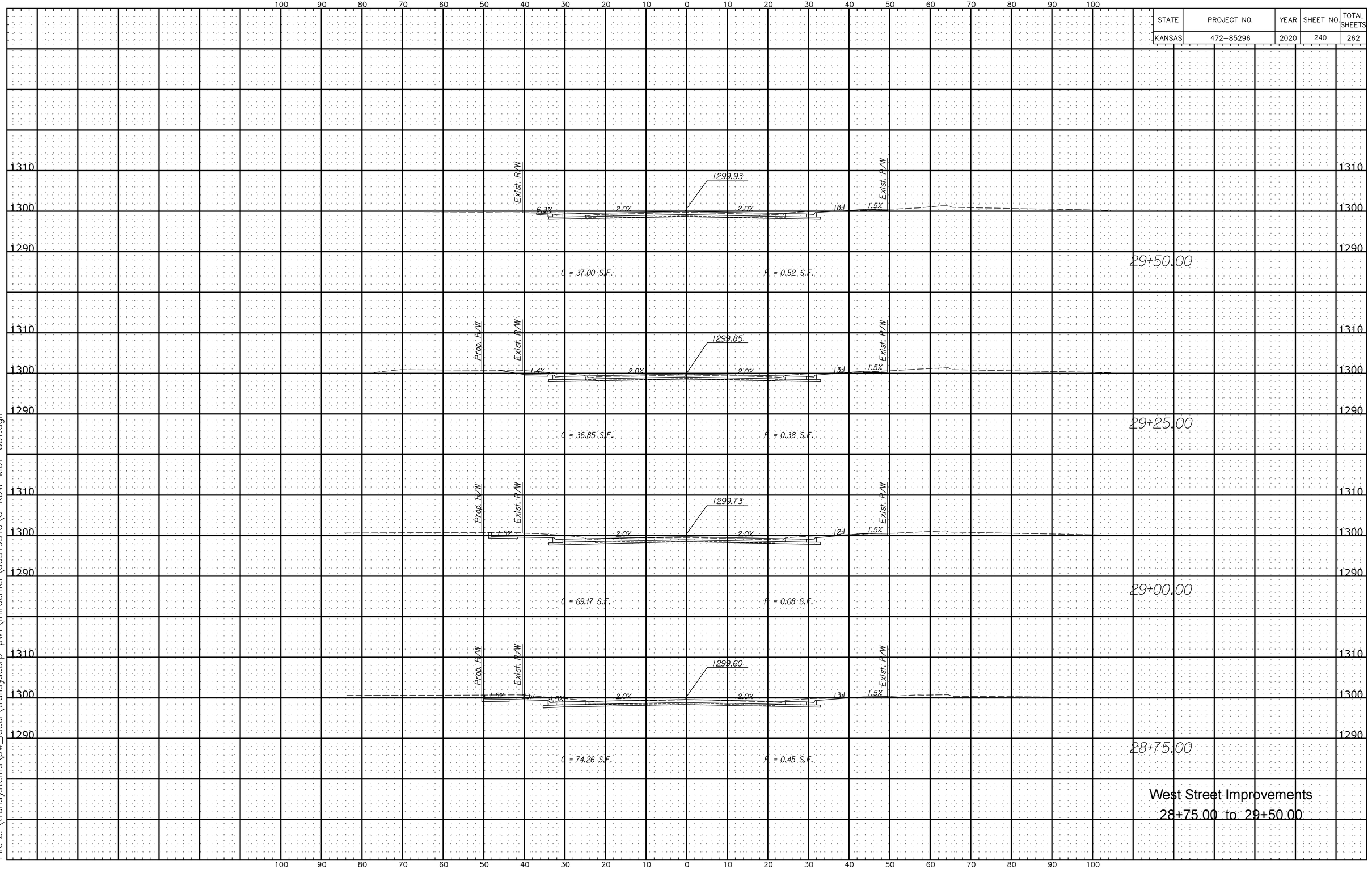
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	240	262



Plotted: 2/25/2020
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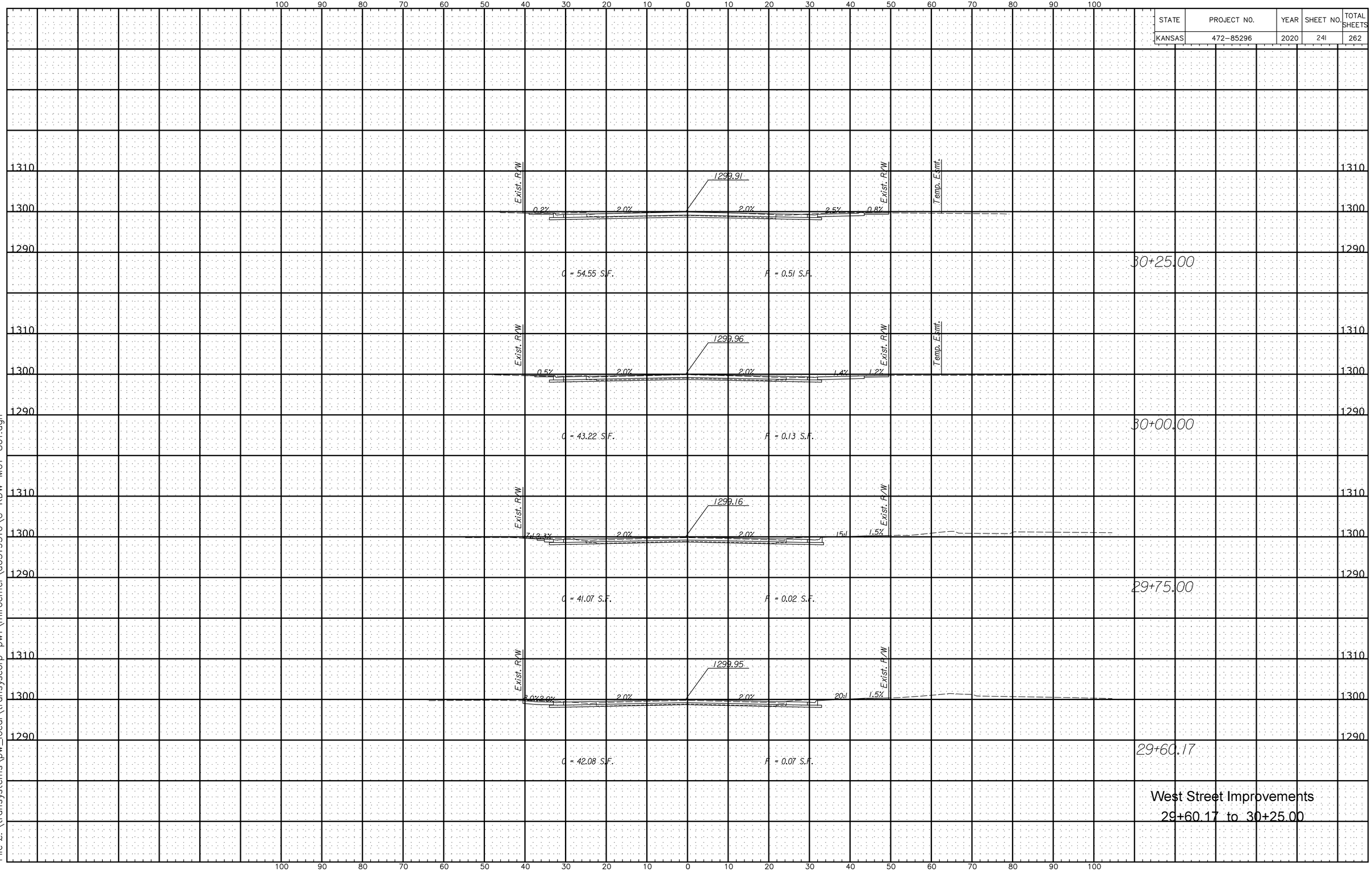
Plotted By: Road

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	241	262



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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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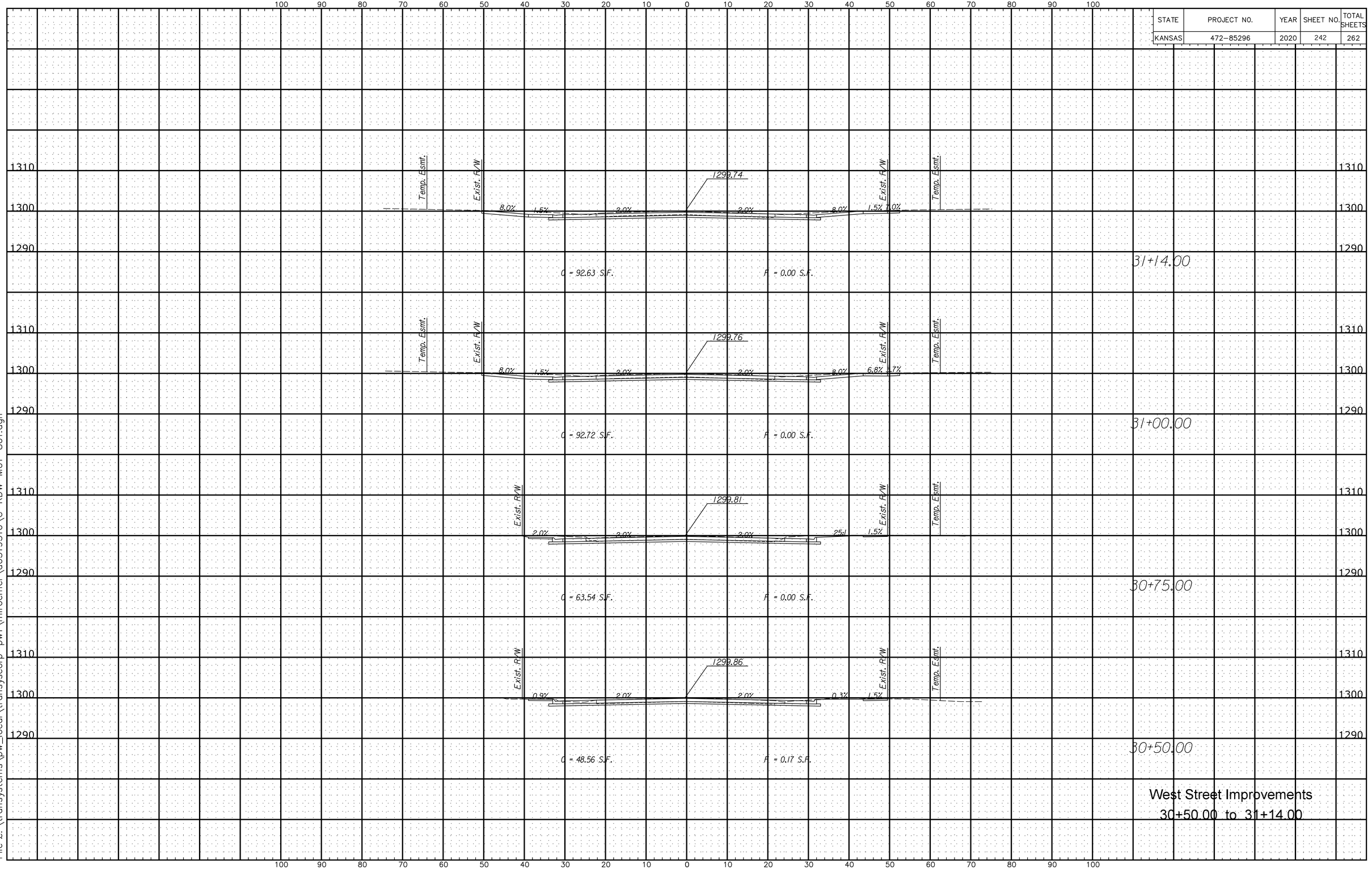

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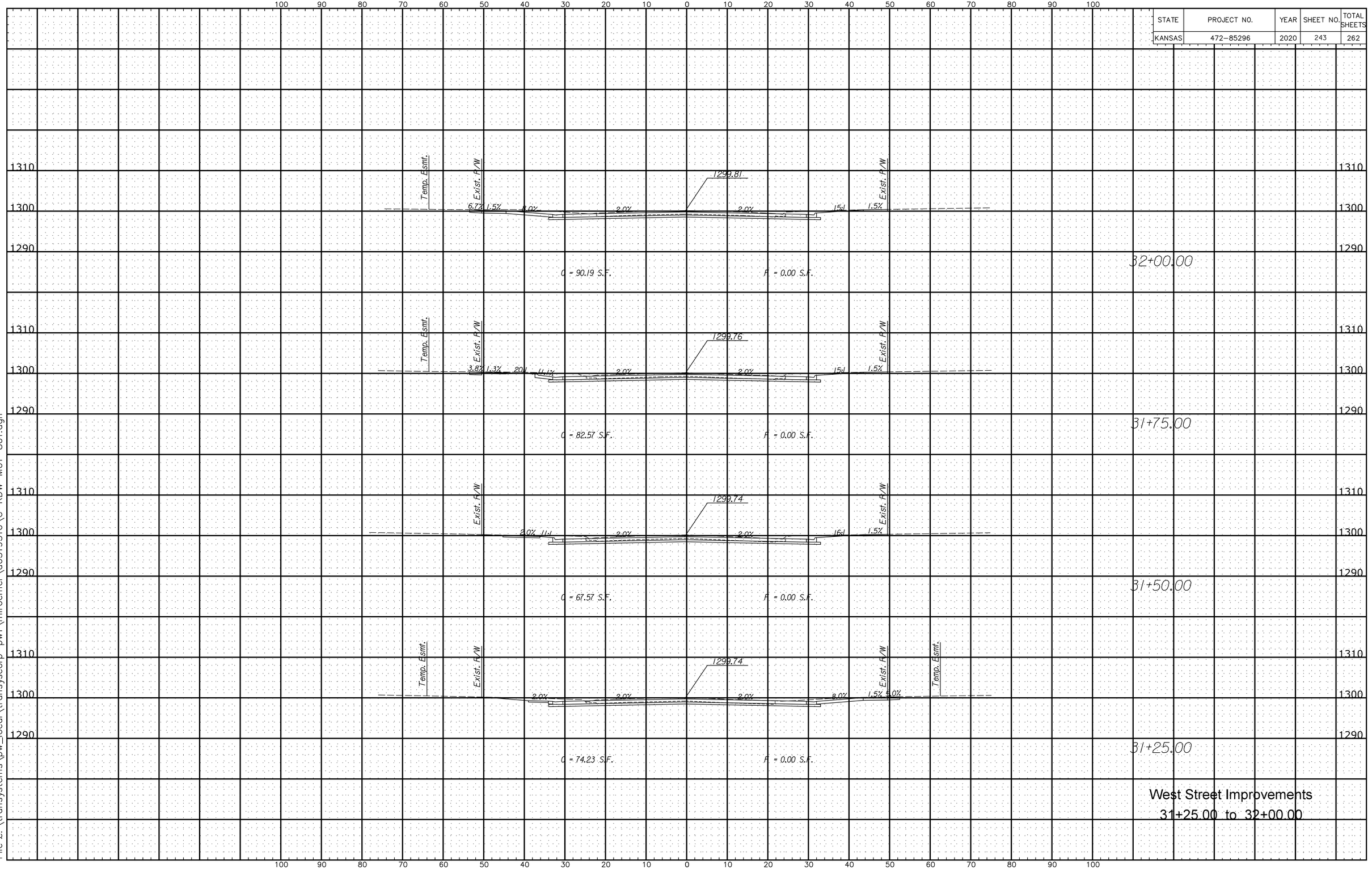
Plotted:2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	243	262



West Street Improvements
31+25.00 to 32+00.00

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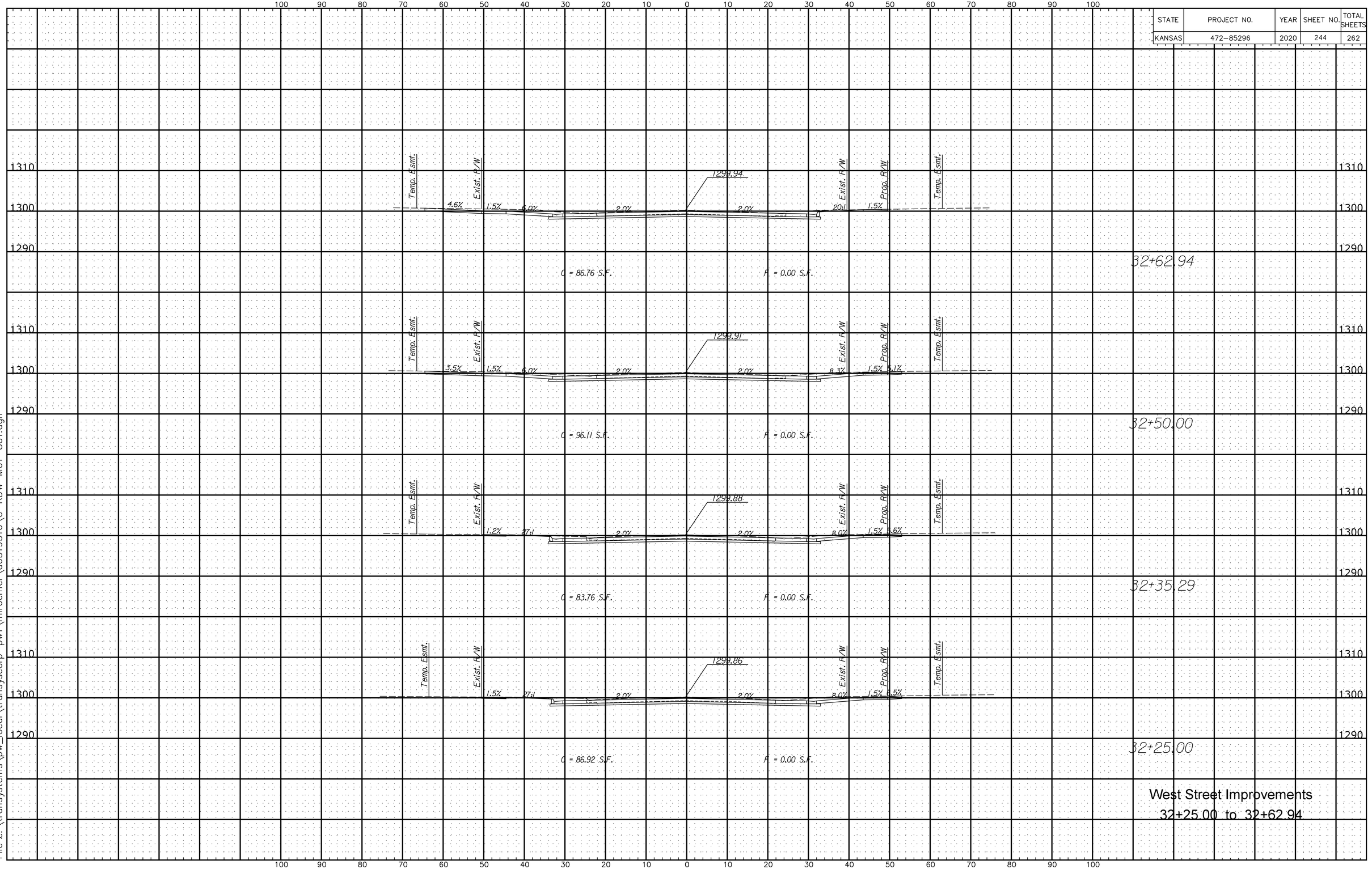
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	244	262



West Street Improvements
32+25.00 to 32+62.94

Plotted By:
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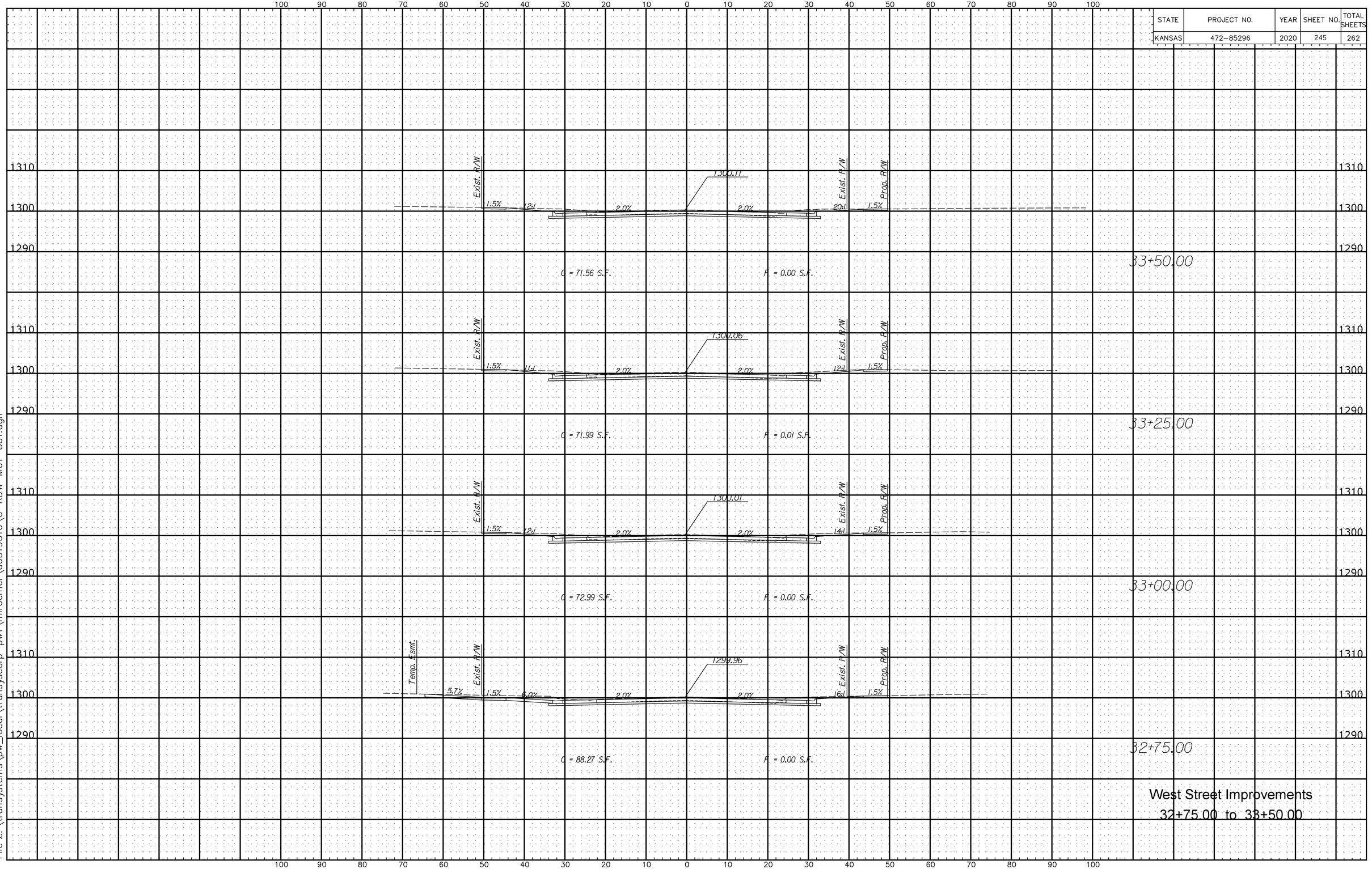
Plotted:2/25/2020
Road

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	245	262



West Street Improvements
32+75.00 to 33+50.00

Plotted By:
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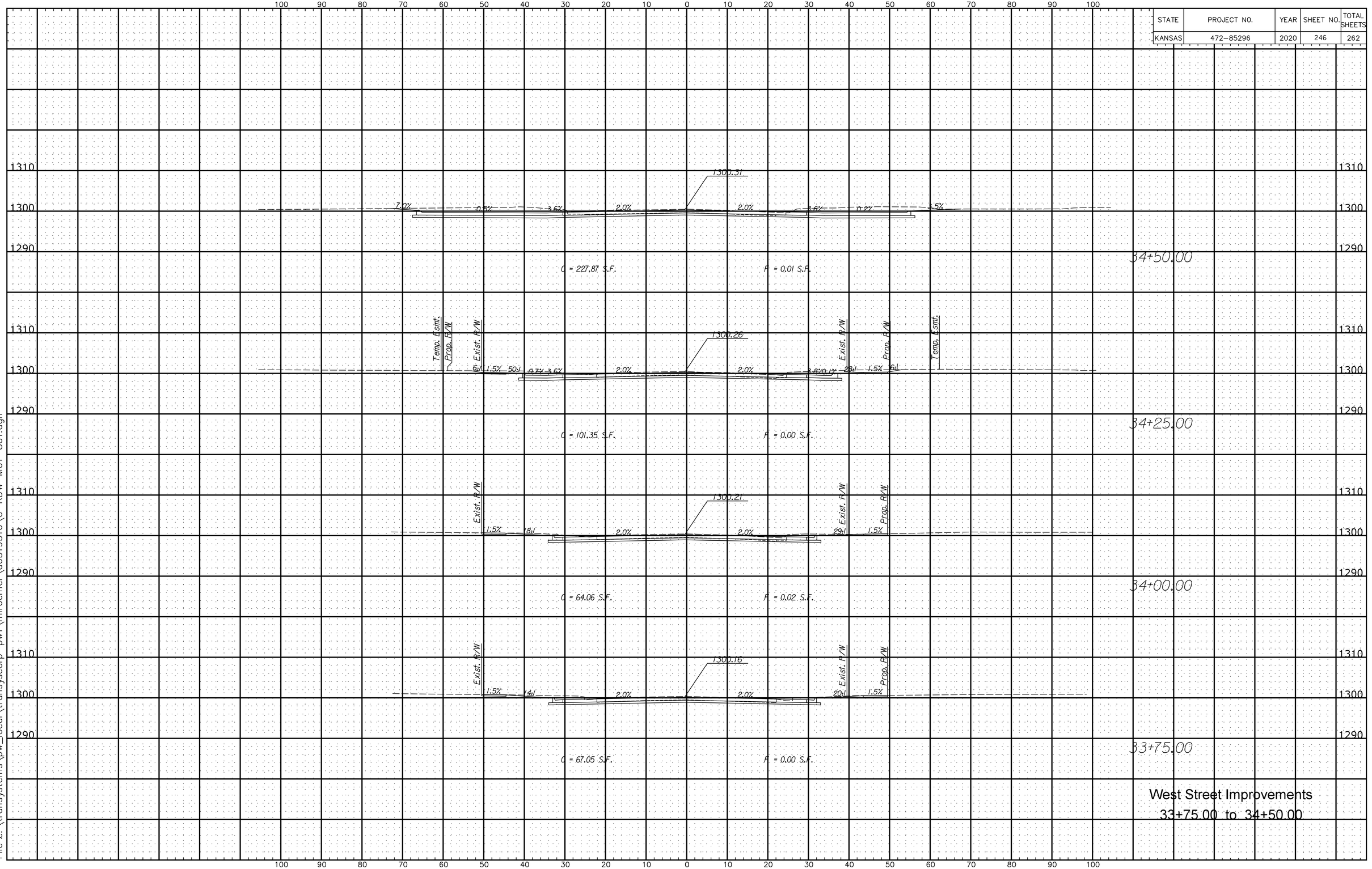
Plotted: 2/25/2020
Road

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	246	262



Plotted By: Broad
Plotted: 2/25/2020
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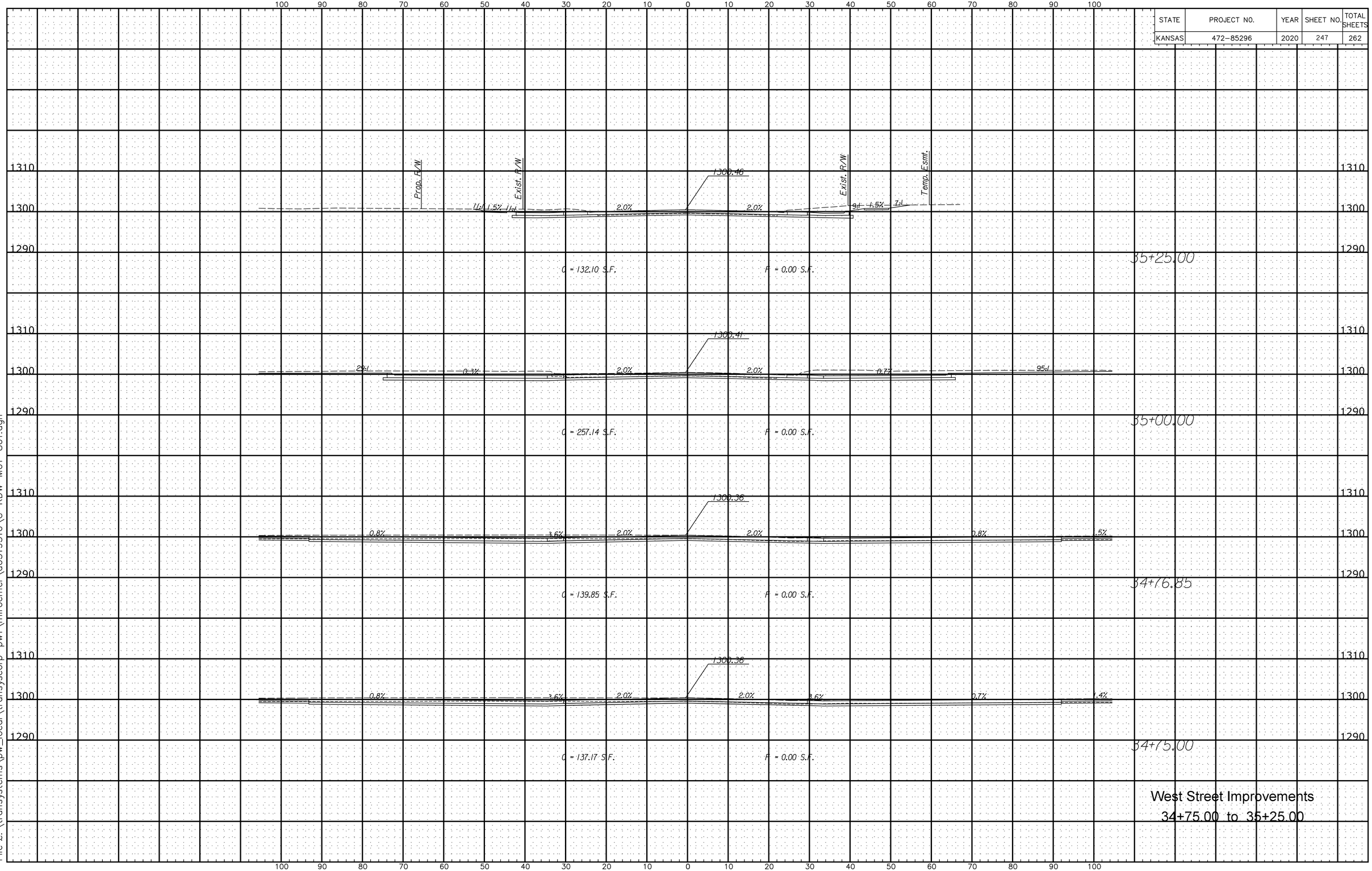
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	247	262



West Street Improvements
34+75.00 to 35+25.00

Plotted BY:
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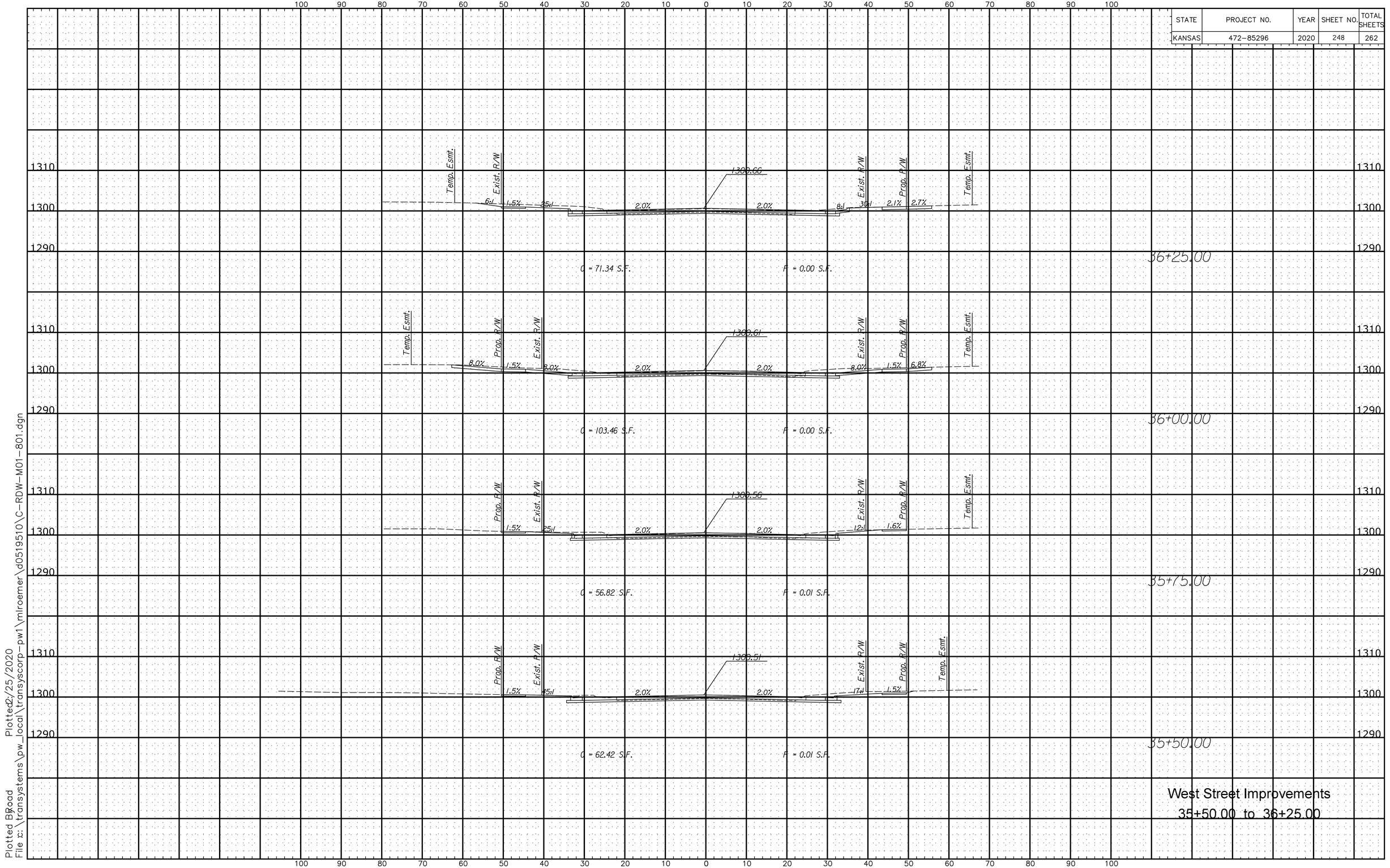
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	248	262



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Plotted: 2/25/2020
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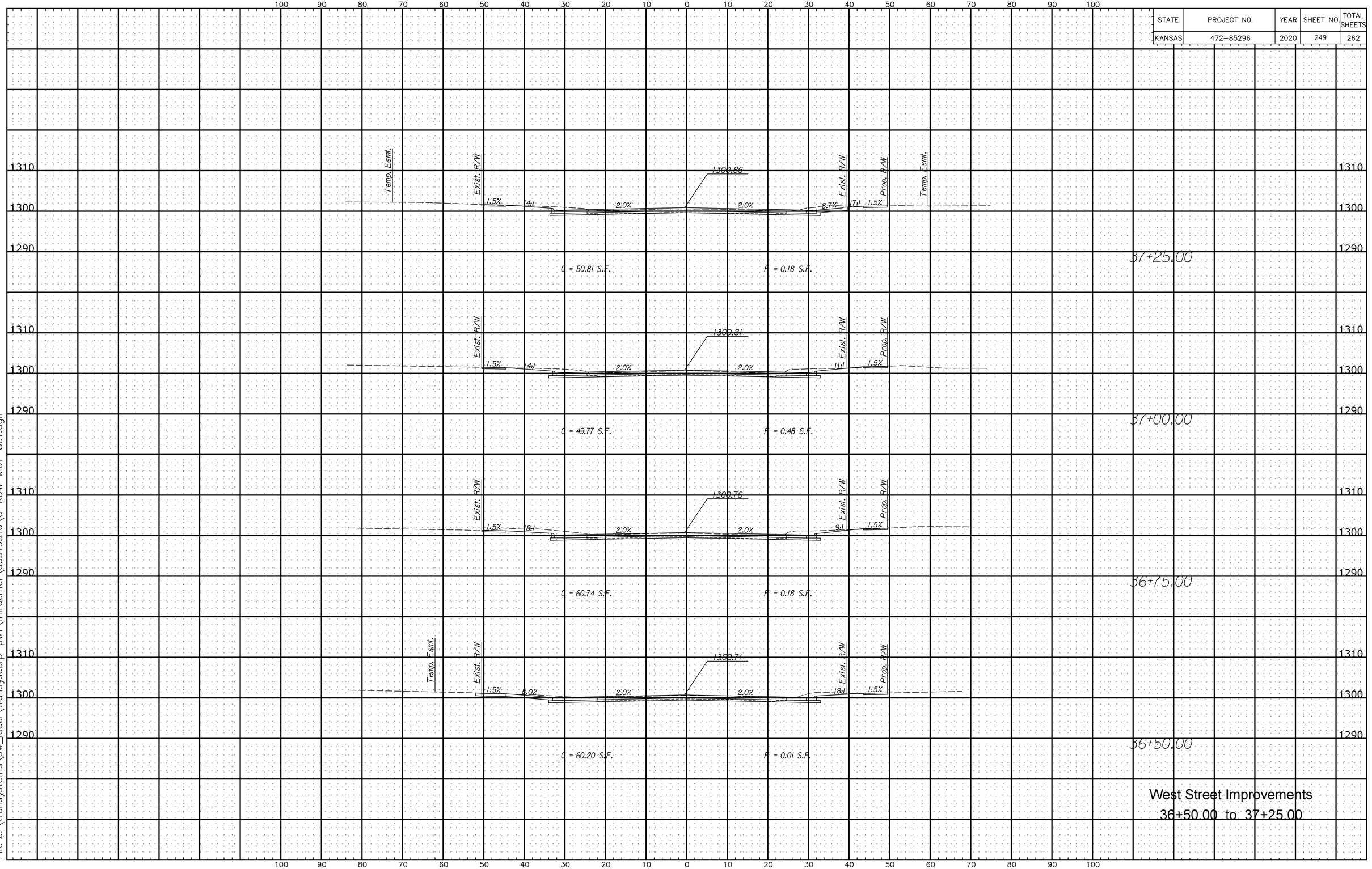
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	249	262



West Street Improvements
36+50.00 to 37+25.00

Plotted By: Broad
Plotted: 2/25/2020
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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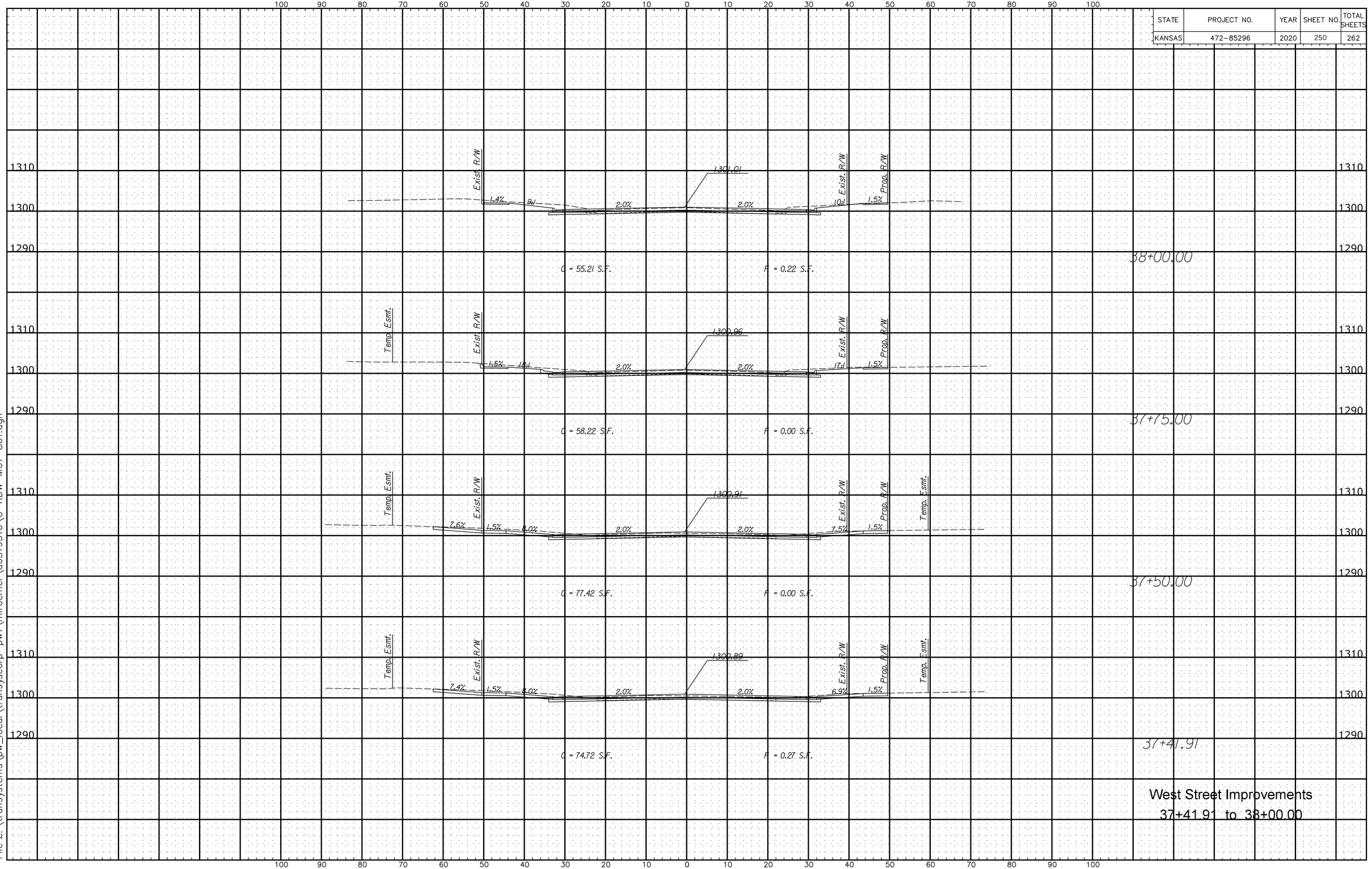

West Street Improvements
37+41.91 to 38+00.00

Plotted By: Broad
Plotted: 2/25/2020
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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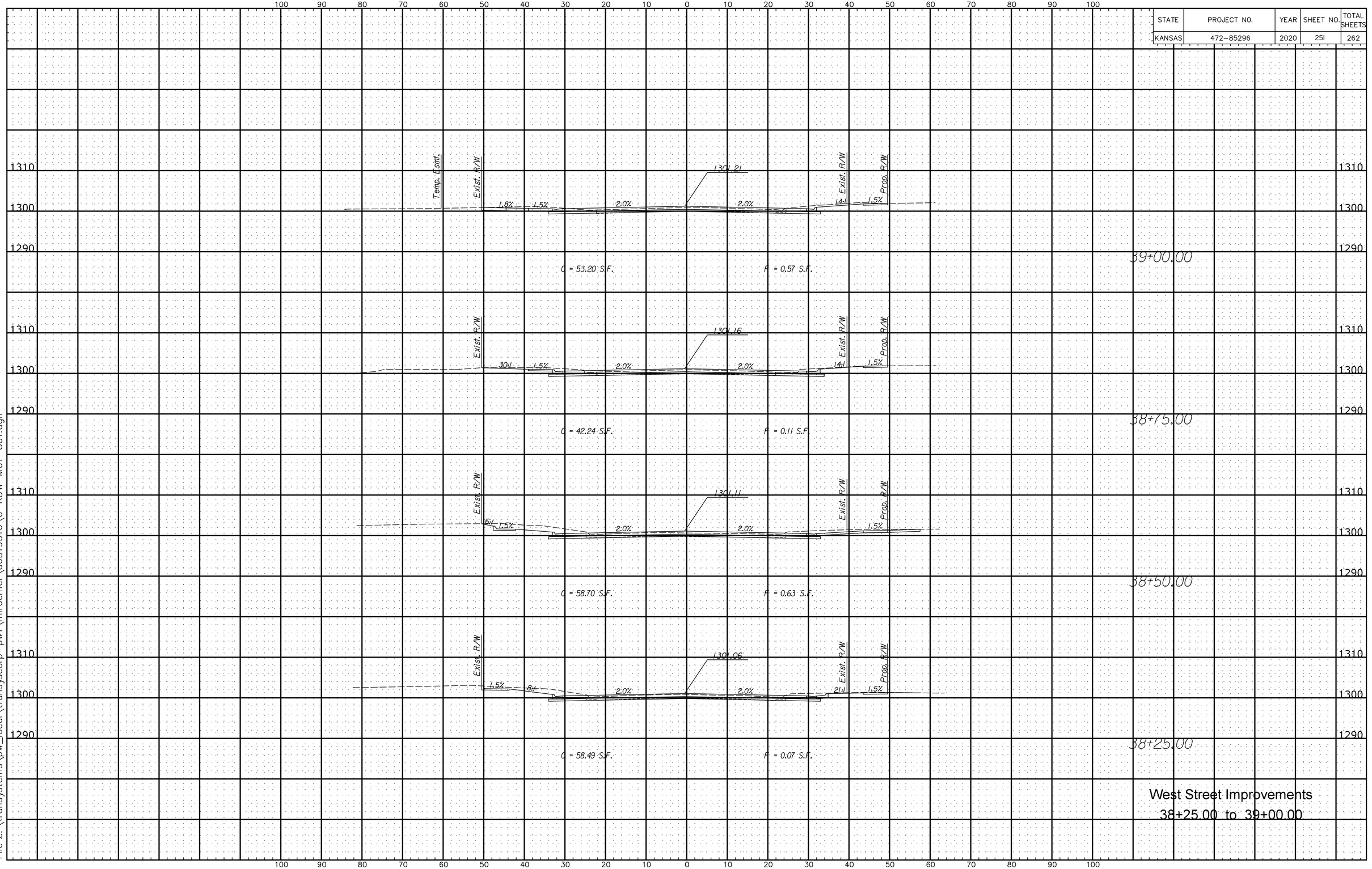

West Street Improvements
38+25.00 to 39+00.00

Plotted By: Broad
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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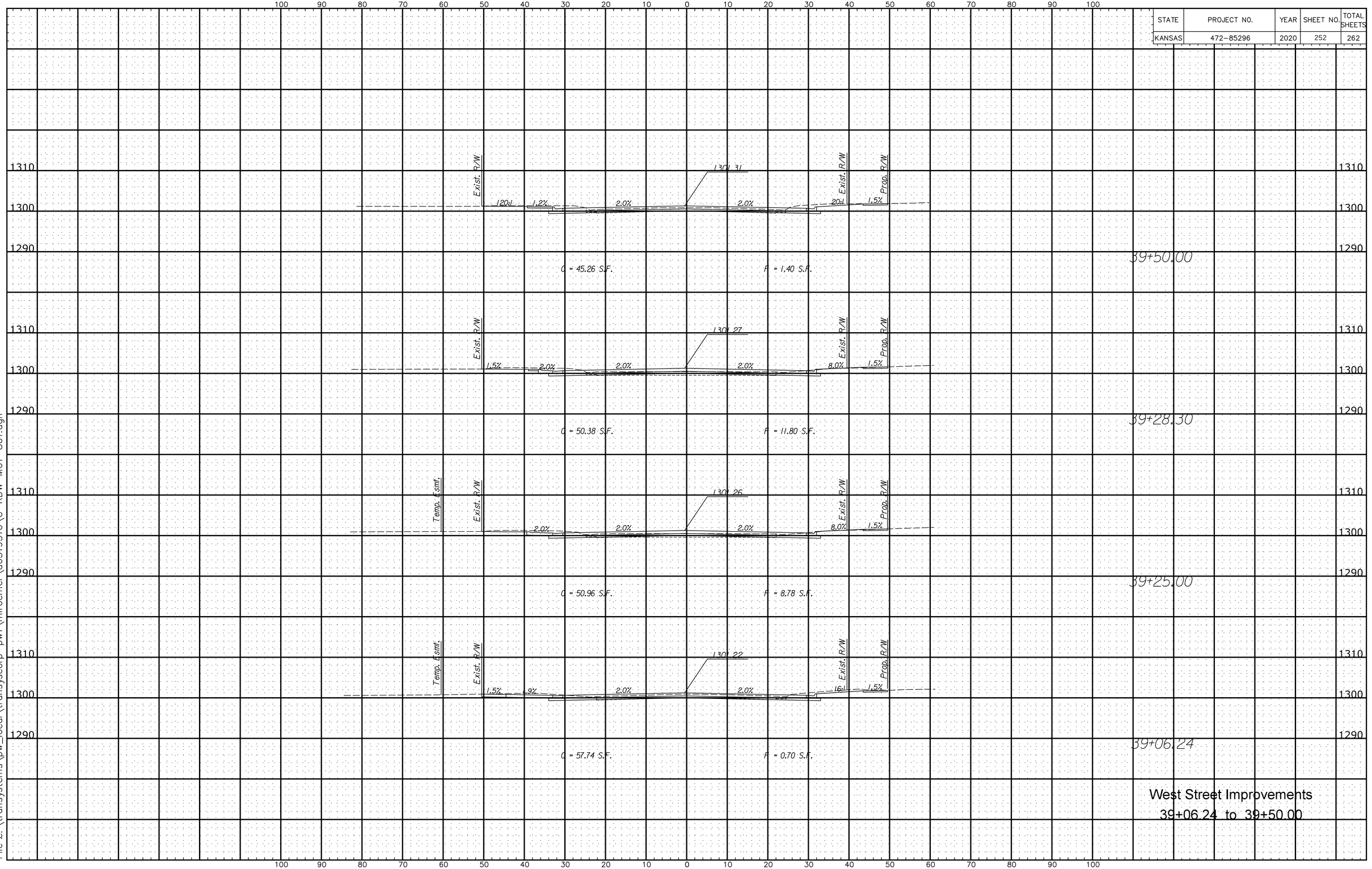

West Street Improvements
39+06.24 to 39+50.00

Plotted By: Broad
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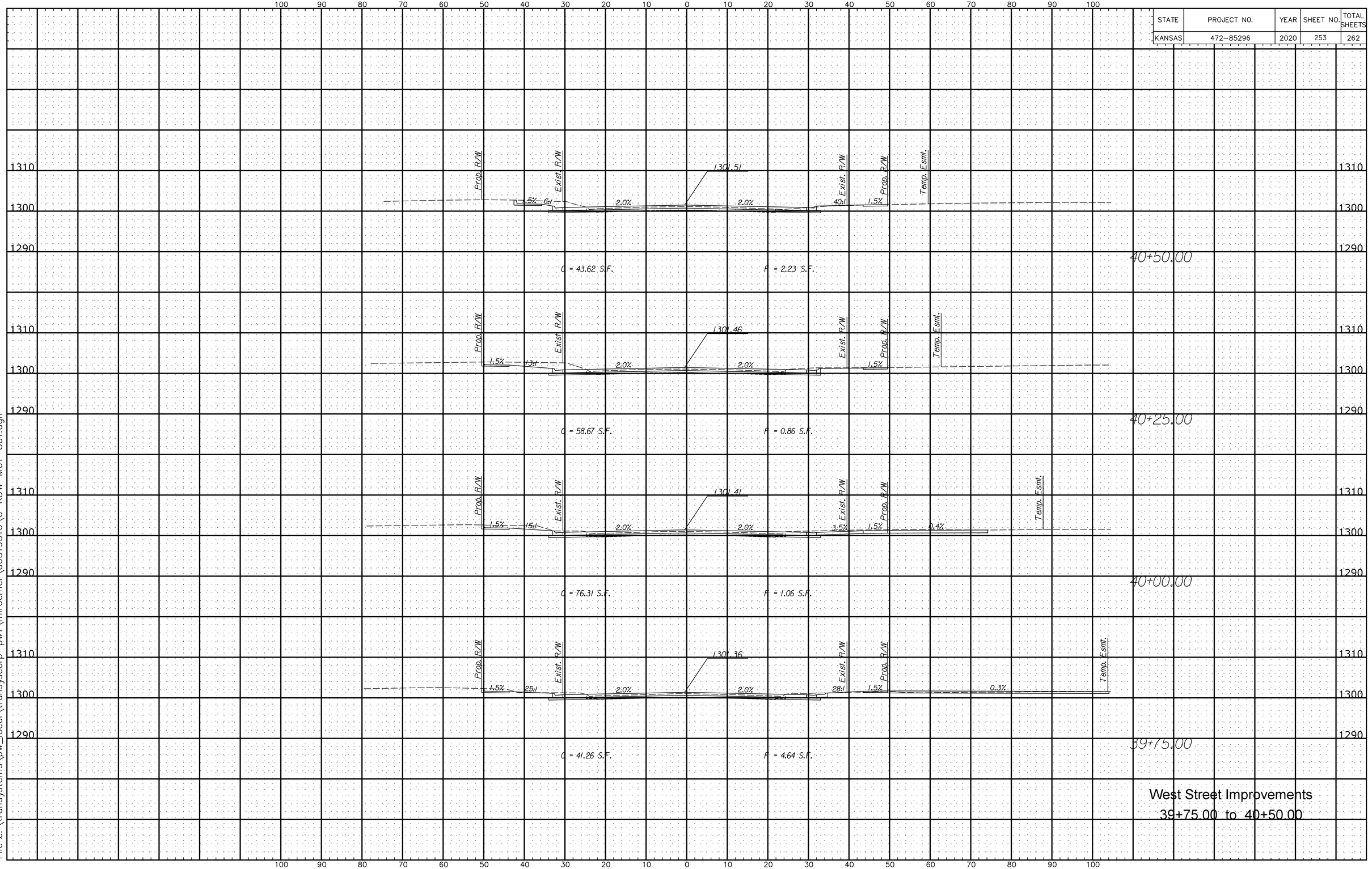
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	253	262



West Street Improvements
39+75.00 to 40+50.00

Plotted By: Broad
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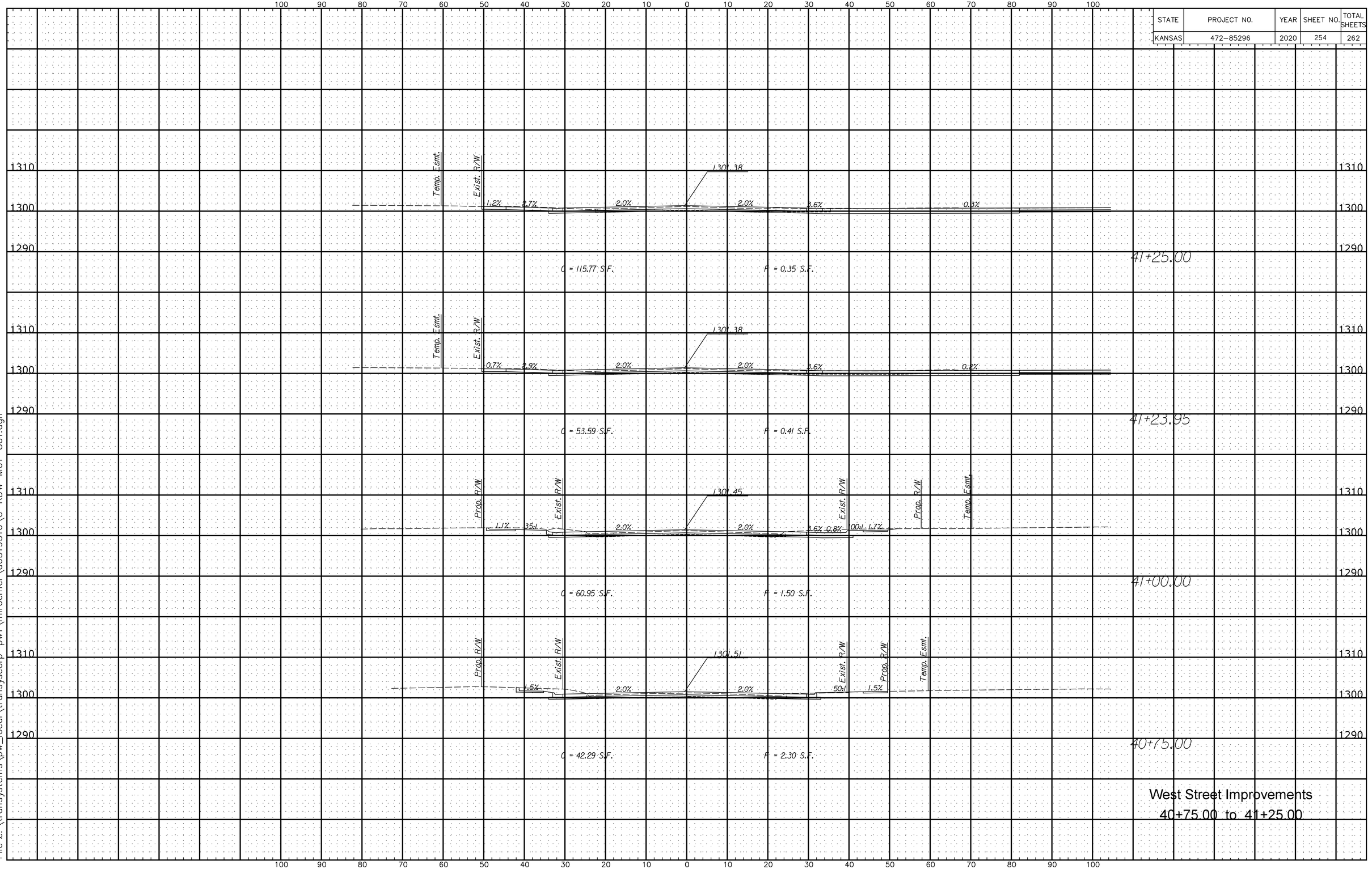
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	254	262



West Street Improvements
40+75.00 to 41+25.00

Plotted By: Broad
Plotted: 2/25/2020
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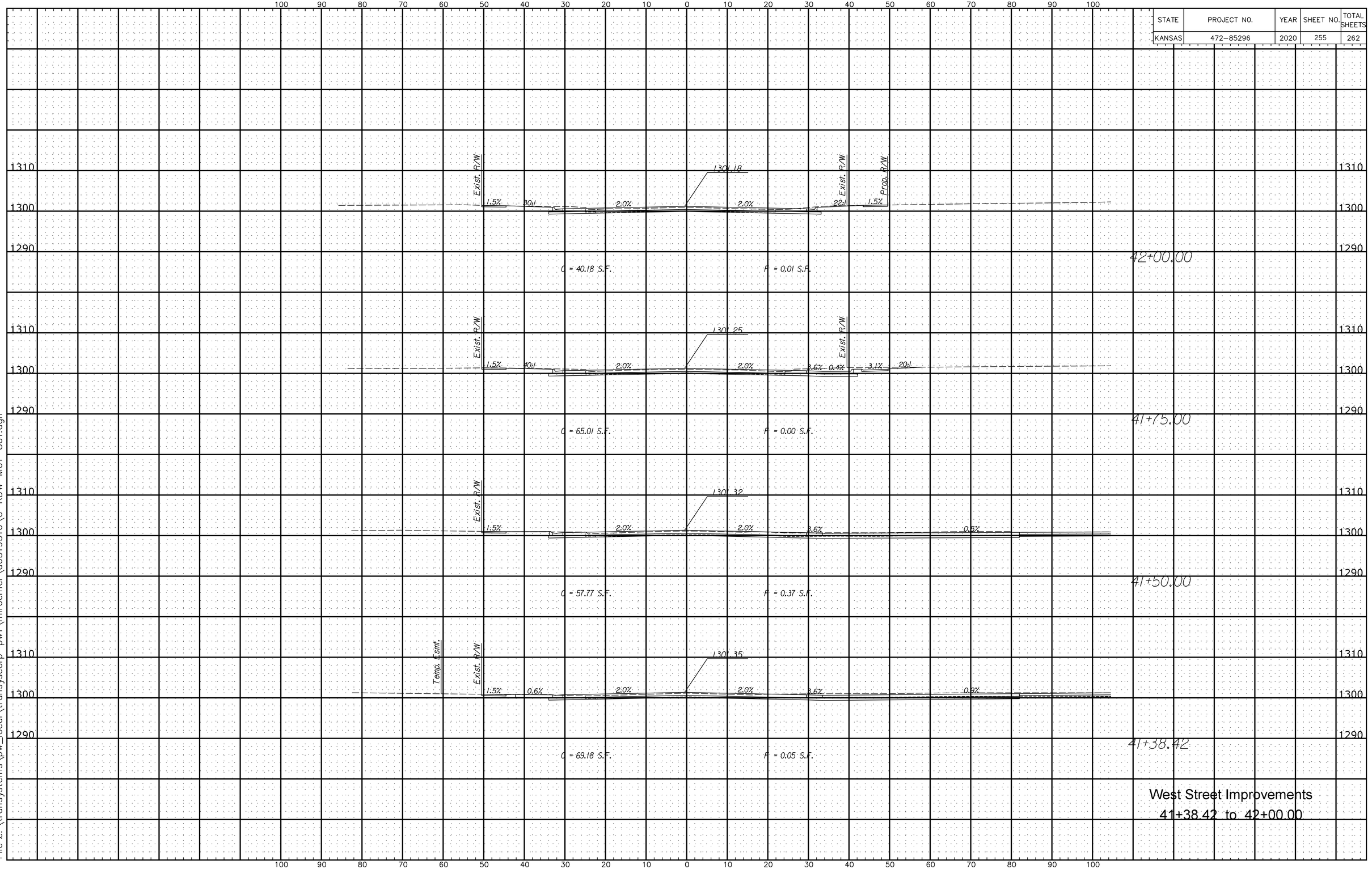
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	255	262



West Street Improvements
41+38.42 to 42+00.00

Plotted By: Road
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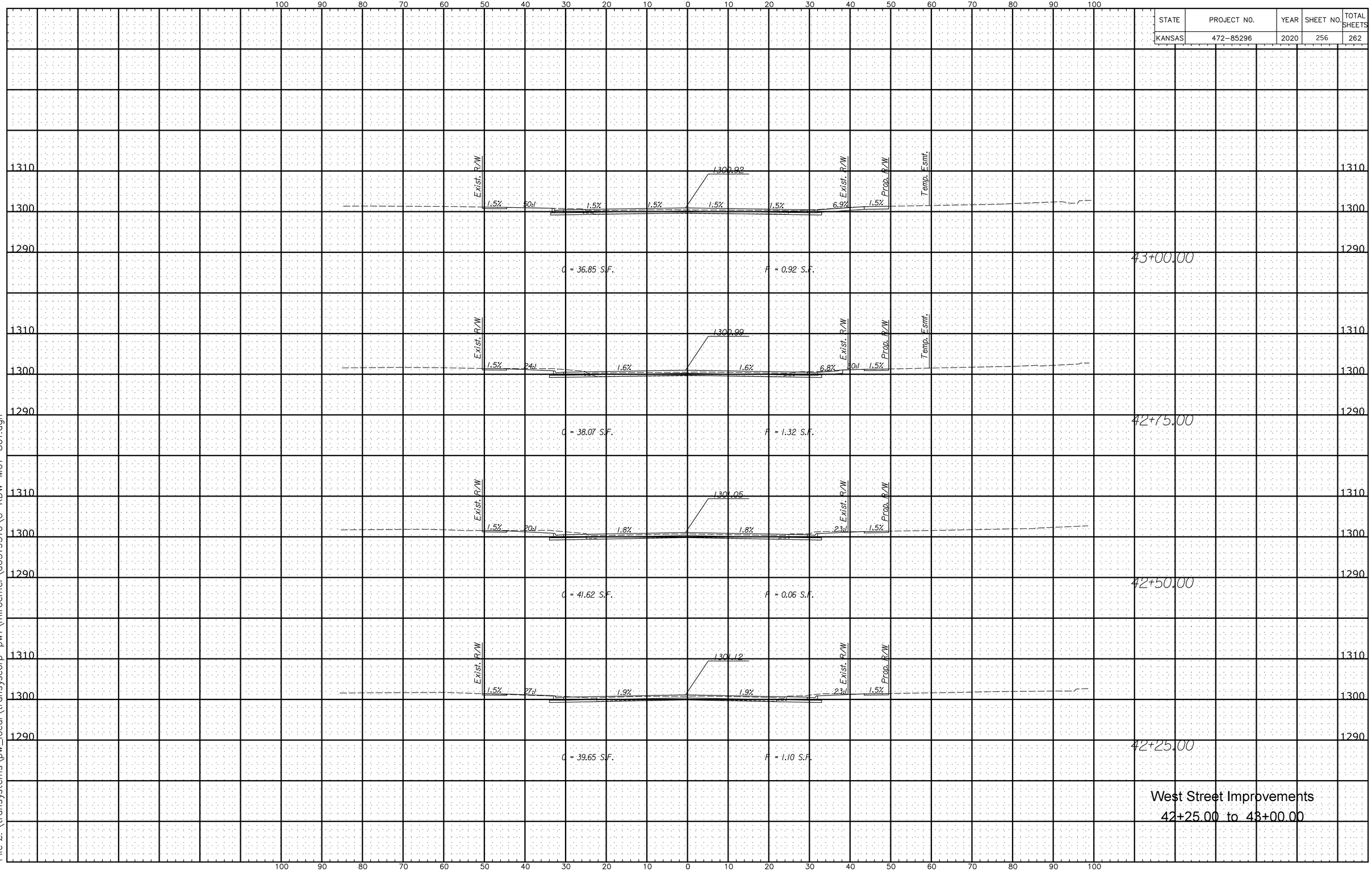
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	256	262



Plotted By: Broad
Plotted: 2/25/2020
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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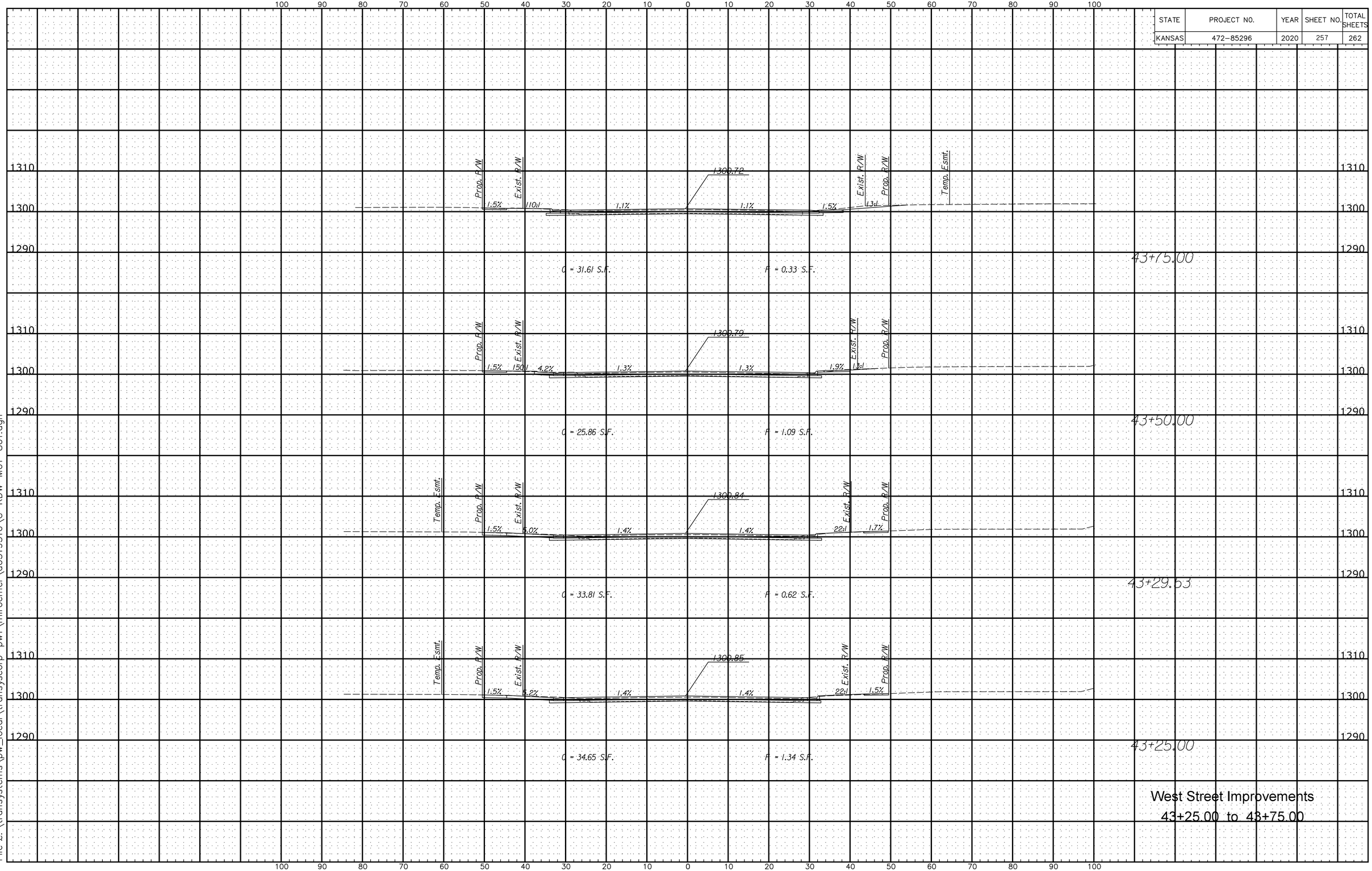

West Street Improvements
43+25.00 to 43+75.00

Plotted By: Broad
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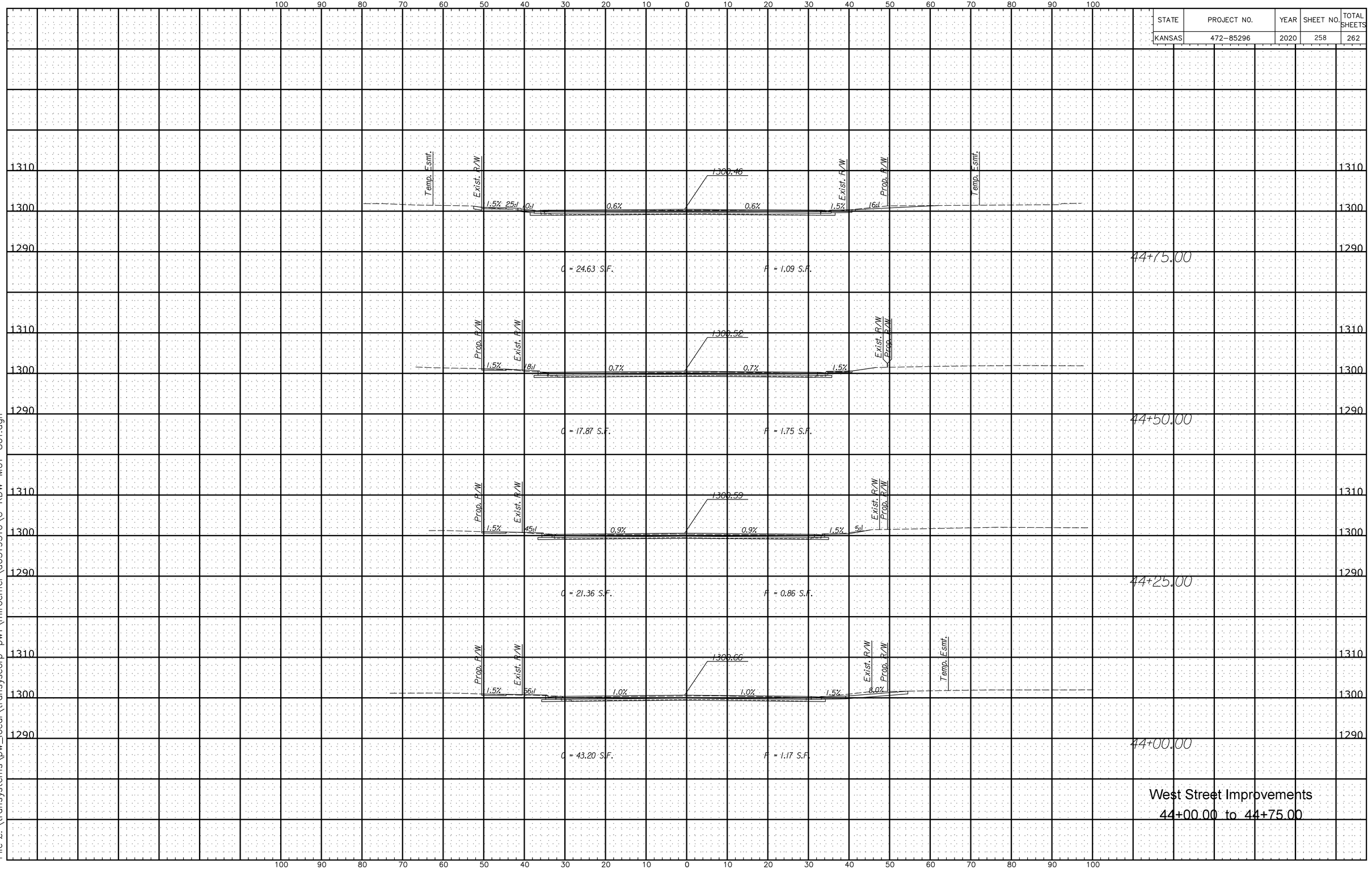
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	258	262



West Street Improvements
44+00.00 to 44+75.00

Plotted By: Broad
Plotted: 2/25/2020
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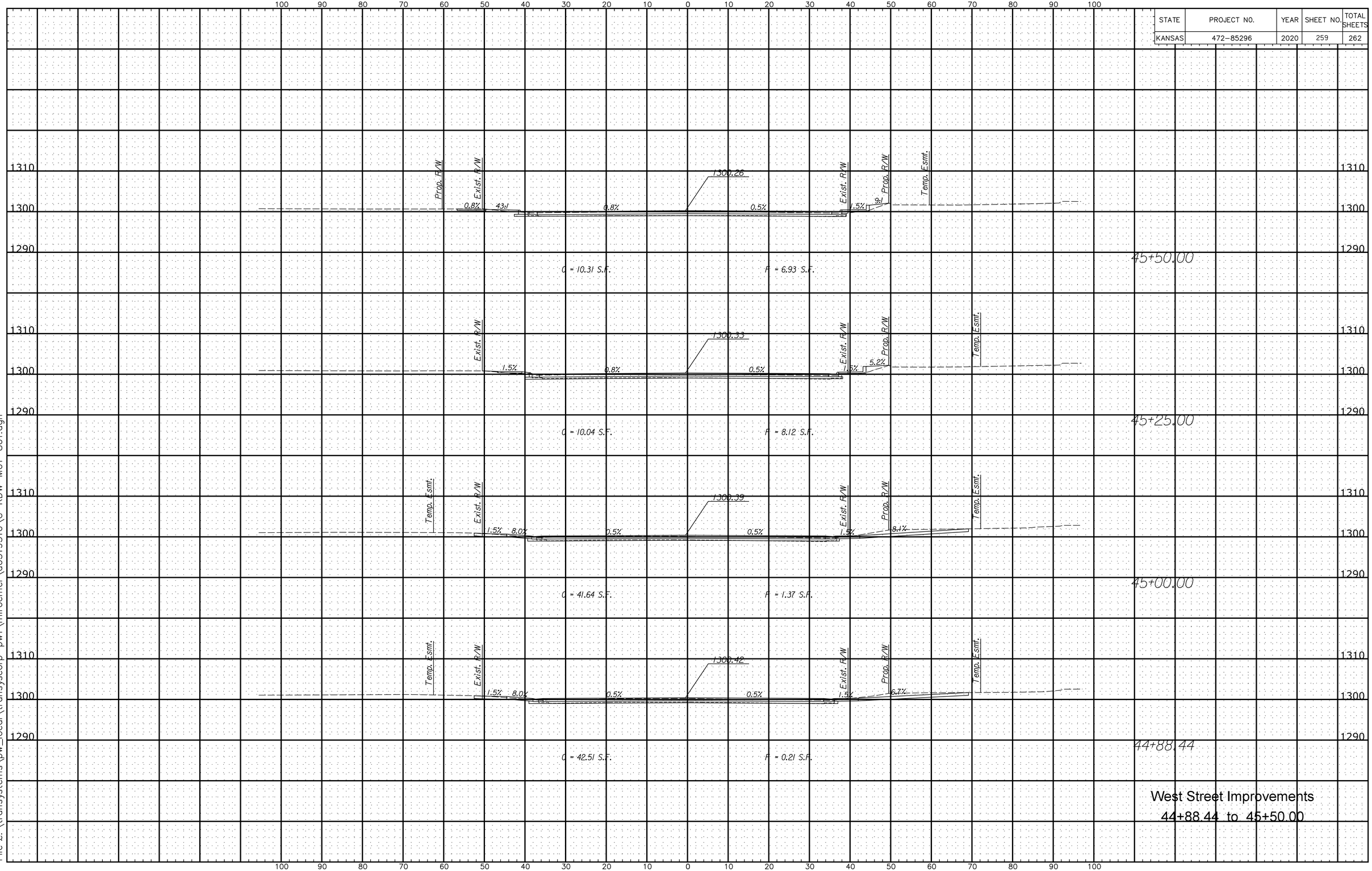
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	259	262



West Street Improvements
44+88.44 to 45+50.00

Plotted By: Broad
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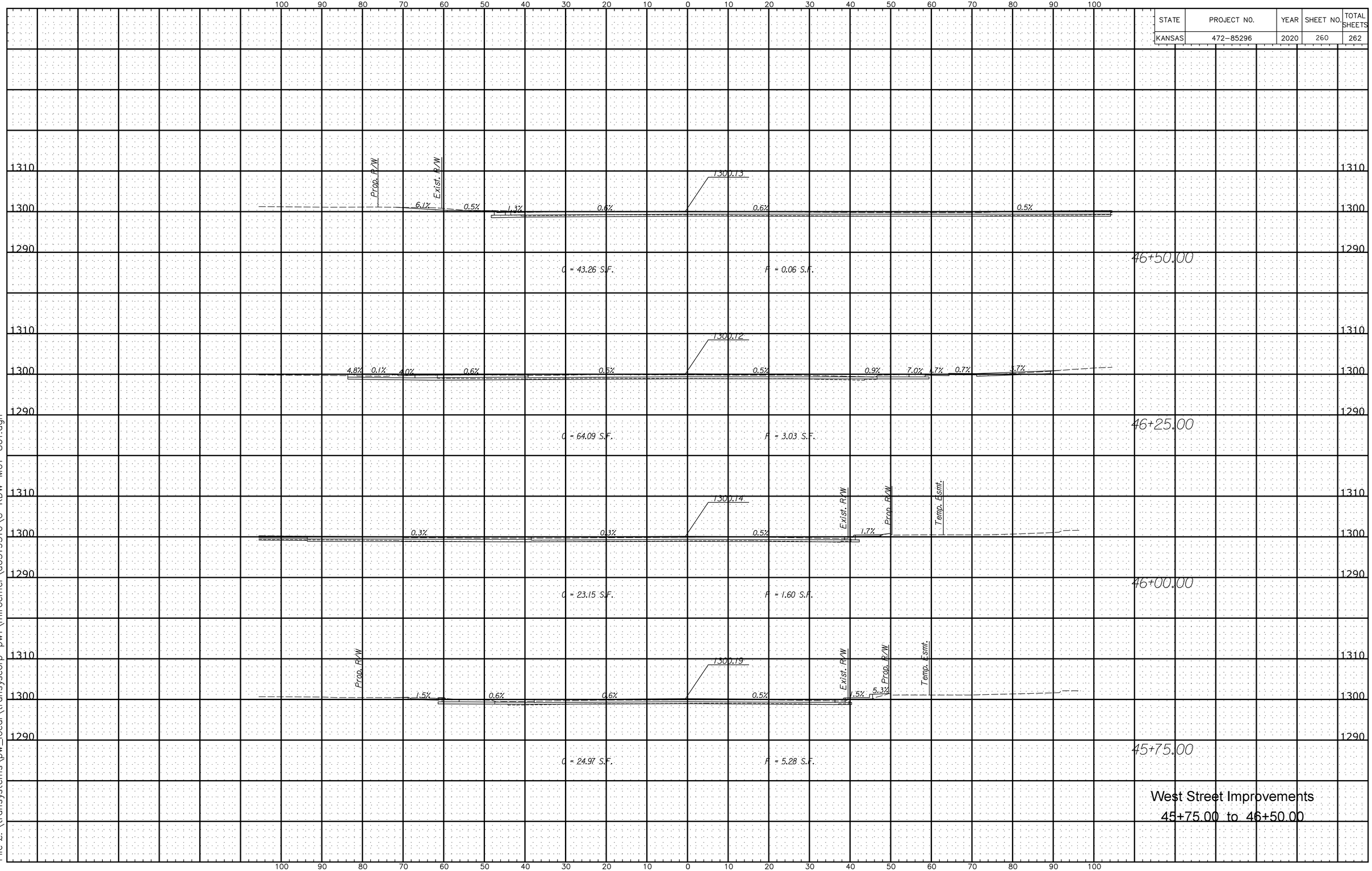
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	260	262



West Street Improvements
45+75.00 to 46+50.00

Plotted By: Brad Plotted: 2/25/2020
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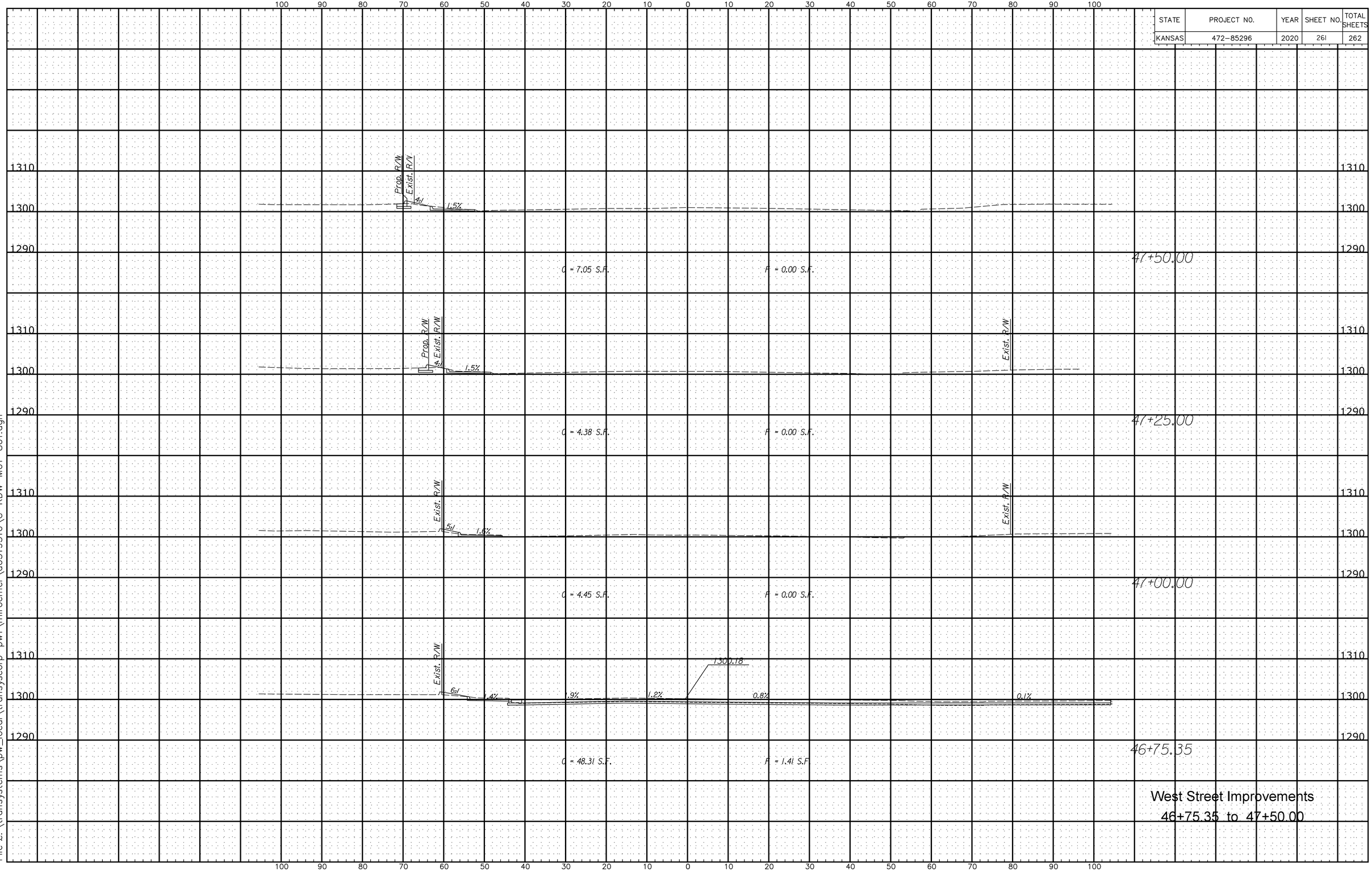
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	261	262



West Street Improvements
46+75.35 to 47+50.00

Plotted By: Broad
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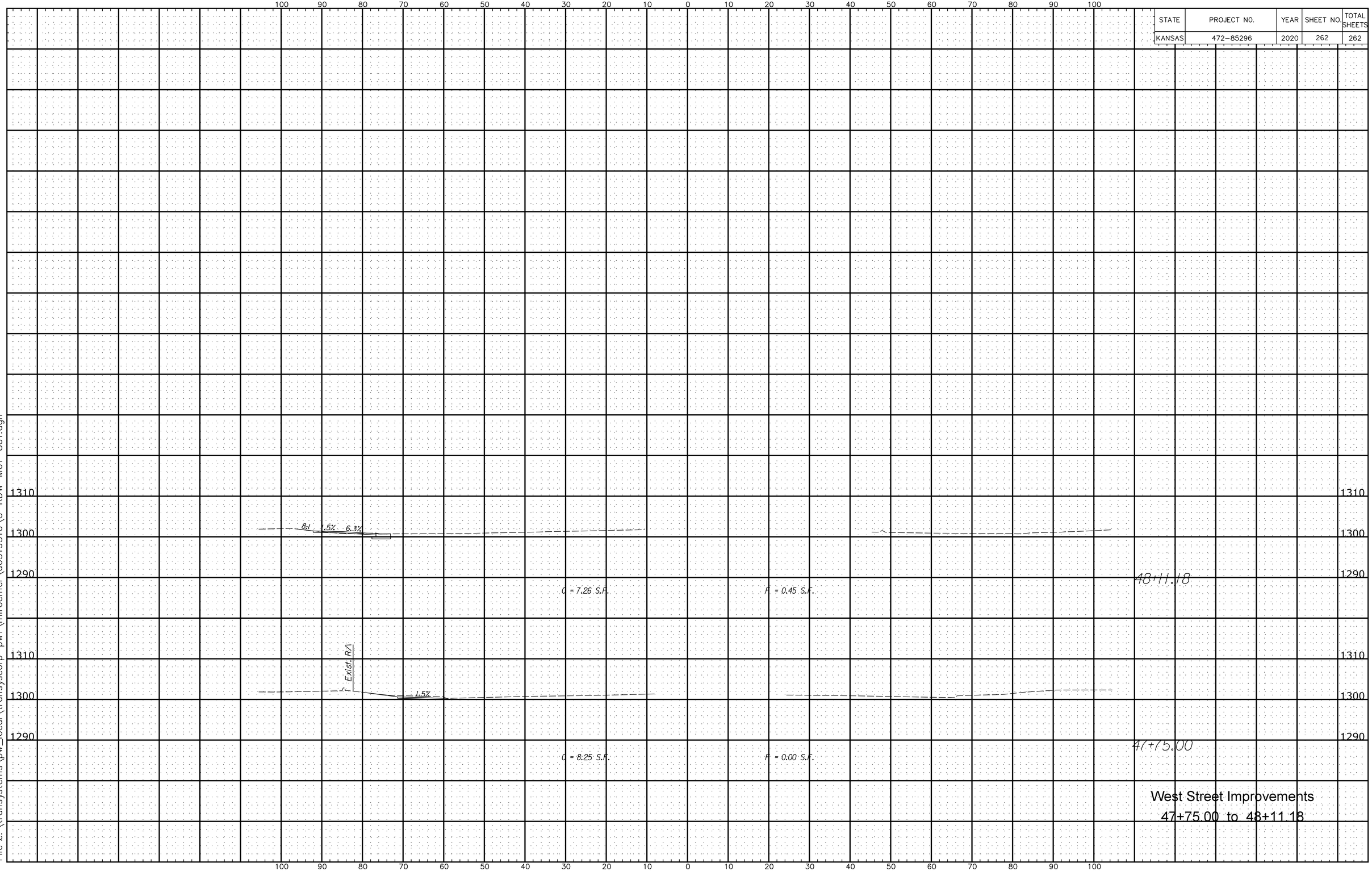
Plotted: 2/25/2020

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85296	2020	262	262



Plotted: 2/25/2020
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Plotted By: Road