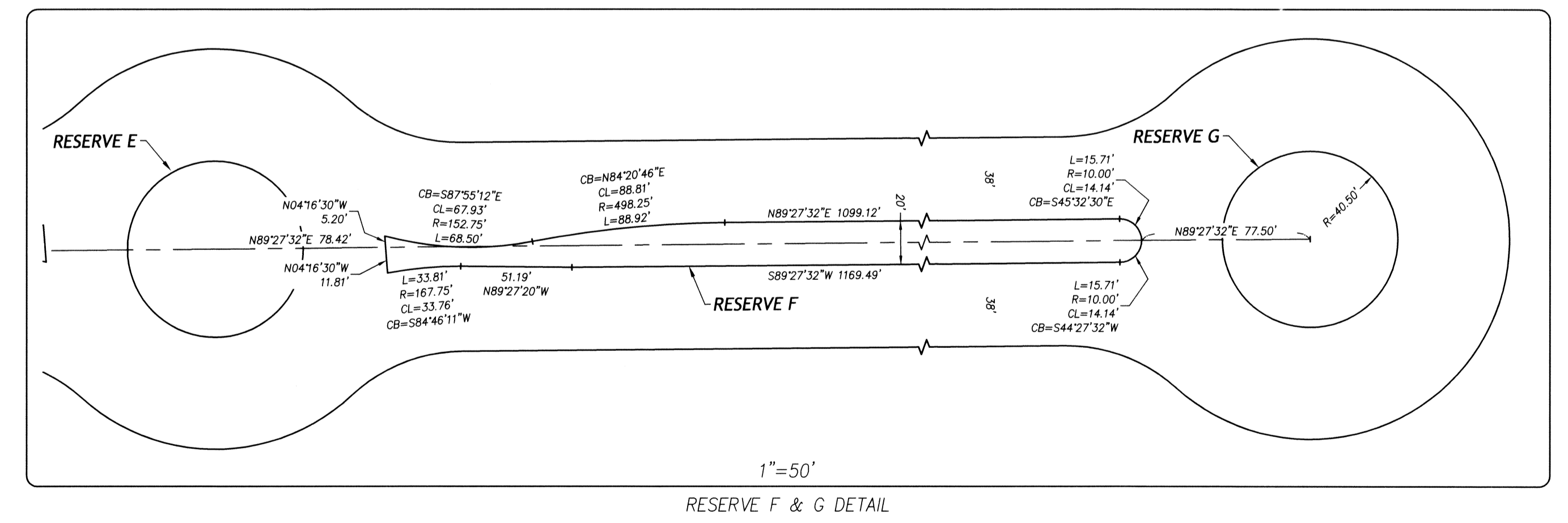
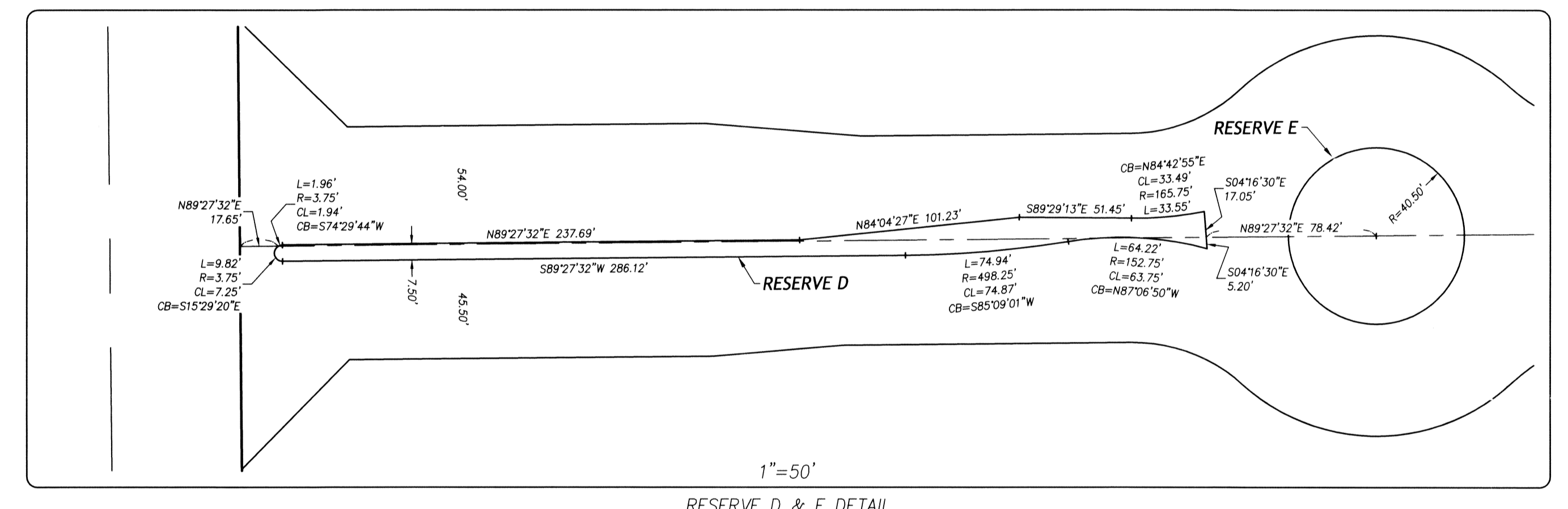
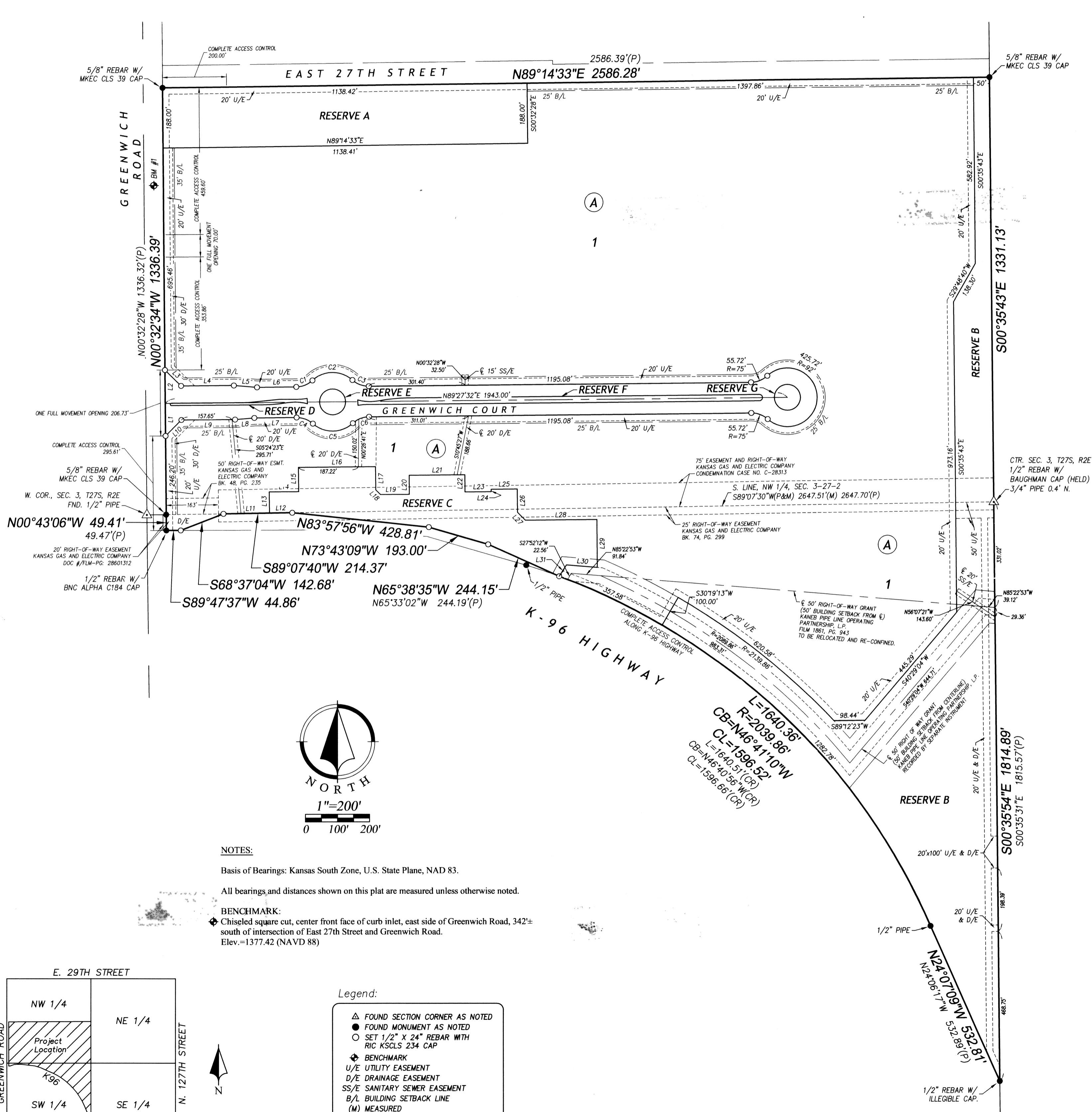


FINAL PLAT

WICHITA DESTINATION DEVELOPMENT

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

A REPLAT OF ALL OF K96 AND GREENWICH NORTH ADDITION



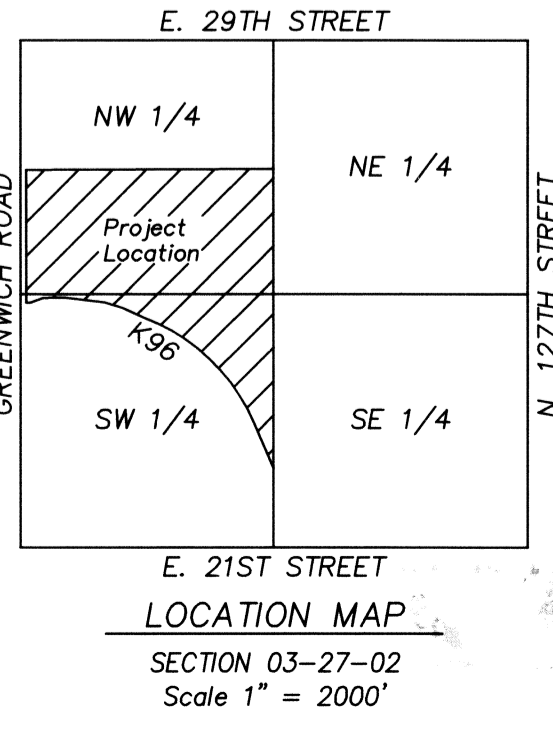
NOTES:

Basis of Bearings: Kansas South Zone, U.S. State Plane, NAD 83.

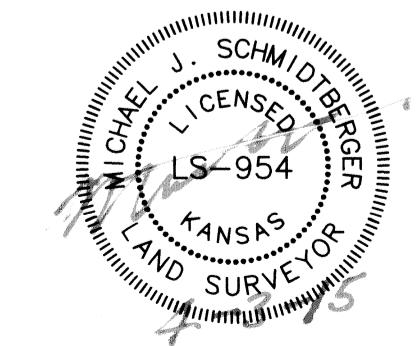
All bearings and distances shown on this plat are measured unless otherwise noted.

BENCHMARK:

Chiseled square cut, center front face of curb inlet, east side of Greenwich Road, 342± south of intersection of East 27th Street and Greenwich Road. Elev.=1377.42 (NAVD 88)



- Legend:**
- ▲ FOUND SECTION CORNER AS NOTED
 - FOUND MONUMENT AS NOTED
 - SET 1/2" X 24" REBAR WITH RIC KSCLS 234 CAP
 - ◆ BENCHMARK
 - U/E UTILITY EASEMENT
 - D/E DRAINAGE EASEMENT
 - SS/E SANITARY SEWER EASEMENT
 - B/L BUILDING SETBACK LINE
 - (M) MEASURED
 - (P) PLATED
 - L LENGTH OF CURVE
 - R RADIUS OF CURVE
 - CL CHORD LENGTH
 - CB CHORD BEARING



WICHITA DESTINATION DEVELOPMENT

Prepared For:
Wichita Destination Developers, Inc.
1707 N. Waterfront Parkway
Wichita, KS 67206
(316) 685-5341

Date of Preparation:
May 28, 2014

Renaissance Infrastructure Consulting
1138 W. Cambridge Circle Drive
Kansas City, Kansas 66103
913.317.9500
www.ric-consult.com

SHEET 1 OF 1

46-156-21

FINAL PLAT

WICHITA DESTINATION DEVELOPMENT

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

A REPLAT OF ALL OF K96 AND GREENWICH NORTH ADDITION

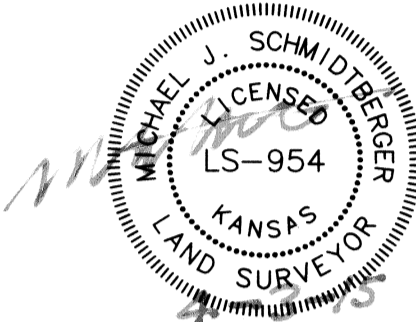
CERTIFICATE OF SURVEY

I, Michael J. Schmidtberger, a registered land surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "WICHITA DESTINATION DEVELOPMENT" an addition to Wichita, Sedgwick County, Kansas, into Lots, Reserves and Streets the same being accurately set forth in the accompanying plat and described herein:

A replat of all of Lots 1 thru 7 inclusive, Block 1, Lots 1 thru 8 inclusive, Block 2, Reserves A, B, C, D, E, F and G, K96 AND GREENWICH NORTH ADDITION, an addition to Wichita, Sedgwick County, Kansas, together with WOODSPRING ST, WOODSPRING CIR., and BOULDER DR. platted rights-of-way.

All lots, blocks, streets, easements, setbacks, and access controls, together with all other public dedications or rights-of-way within the above described property are hereby vacated and replatted by virtue of K.S.A. 12-512b, as amended.

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 5th day of April, 2015.



Michael Schmidtberger, Kansas LS-954
Renaissance Infrastructure Consulting
1138 W. Cambridge Circle Drive
Kansas City, Kansas 66103

OWNER'S CERTIFICATE

Know all men by these presents that we the undersigned property owner of the land above set forth in the Registered Land Surveyor's Certificate, has caused the same to be surveyed and platted into Lots, Blocks, Reserves, and Streets the same to be known as "WICHITA DESTINATION DEVELOPMENT," a replat K96 AND GREENWICH NORTH ADDITION, an addition to Wichita, Sedgwick County, Kansas.

This plat shall conform to the recitals of CUP DP-333.

Easements for the construction and maintenance of public utilities, drainage and sanitary sewer, as indicated on the accompanying plat are hereby granted to the public.

All streets are hereby dedicated to and for the use of the public.

A drainage plan has been developed for this plat. All drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.

All abutters rights of access to or from Greenwich Road, over and across the west line of "WICHITA DESTINATION DEVELOPMENT", are hereby granted to the appropriate governing body as indicated hereon. All abutters rights of access to or from Kansas Highway 96, over and across the south line of "WICHITA DESTINATION DEVELOPMENT", are hereby granted to the appropriate governing body as indicated hereon. Access controls are dedicated to and for the use of the public.

Lot 1, Block A, is required to adhere to the minimum pad elevation as shown on the "Minimum Pad Elevations" table.

Reserves "A", "B", "C", "D", "E", "F", and "G" are platted for monuments, signs, landscaping, berming, sidewalks, irrigation, open space, pavement, utilities confined by easements, and walls provided that they do not inhibit the conveyance of surface drainage. Reserves "A", "B", "C" are also platted for drainage, drives, and parking. Reserves "D", "E", "F" and "G" shall allow for public access across said reserves, at various locations for driveways, as approved by the City Engineer. The Reserves shall be owned and maintained by the Lot owner's association, provided however, that the undersigned or Lot owner's association as the undersigned successors in interest may, at its discretion deed parcels of said Reserves "A", "B", and "C" to an owner (s) of an adjoining lot subject to the obligation to maintain such deeded parcel in compliance with the provisions hereof and in compliance with the maintenance covenants of any applicable restrictive covenants or regulations.

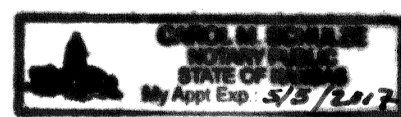
Medical Practice Association Properties, LLC, a Kansas Limited Liability Company

Aaron Ryan
Aaron Ryan, Manager

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

This instrument was acknowledged before me on 9th day of April, 2015, by Aaron Ryan, Manager, Medical Practice Association Properties, LLC, a Kansas Limited Liability Company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal; the day and year last above written.



Carol M. Schulze, Notary Public
Notary Public: Carol M. Schulze
My Term Expires: May 5, 2017

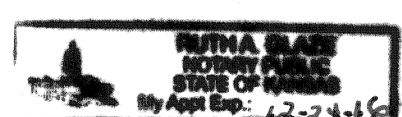
Wichita Destination Developers, Inc., a Kansas Corporation

Michael J. Boyd
Michael J. Boyd, President

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

This instrument was acknowledged before me on 8th day of APRIL, 2015, by Michael J. Boyd, President, Wichita Destination Developers, Inc., a Kansas Corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal; the day and year last above written.



Ruth A. Glaze, Notary Public
Notary Public: Ruth A. Glaze
My Term Expires: 12-24-16

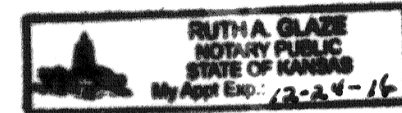
WDDMBB, LLC, a Kansas limited liability company

Michael J. Boyd
Michael J. Boyd, President

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

This instrument was acknowledged before me on 8th day of April, 2015, by Michael J. Boyd, President, WDDMBB, LLC, a Kansas limited liability company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.



Ruth A. Glaze, Notary Public
Notary Public: Ruth A. Glaze
My Term Expires: 12-24-16

PLANNING COMMISSION CERTIFICATE

STATE OF KANSAS)
) SS
CITY OF WICHITA)

This plat of "WICHITA DESTINATION DEVELOPMENT" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 24 day of July, 2014

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Don Klausmeyer, Chairman
John L. Schlegel, Secretary



GOVERNING BODY CERTIFICATE

STATE OF KANSAS)
) SS
CITY OF WICHITA)

The dedications shown on this plat are hereby accepted and this plat is hereby approved by the governing body of the City of Wichita, Kansas.

Dated this 12 day of May, 2015

At the direction of the City Council;

Jeff Longwell, Mayor
Karen Sublett, City Clerk

TRANSFER RECORD

Entered on transfer record this 5th day of June, 2015

Kelly B. Arnold
County Clerk



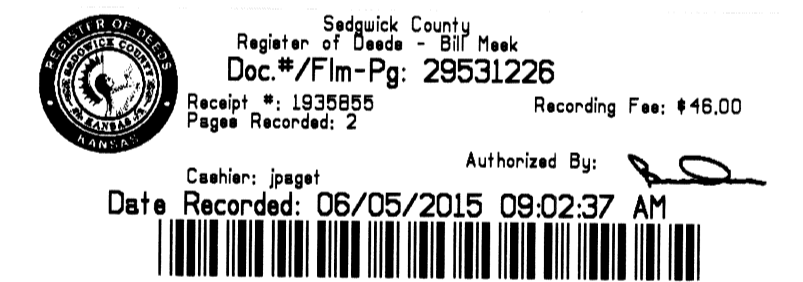
REGISTER OF DEEDS CERTIFICATE

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

This is to certify that this instrument was filed for record in the Register of Deeds office this 5th day of June, 2015, at 9:02:37 o'clock A.M. and is duly recorded.

Bill Meek, Register of Deeds

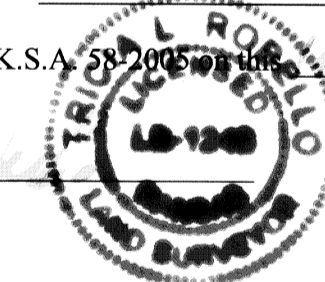
Tonya E. Buckingham, Deputy



COUNTY SURVEYOR

Reviewed in accordance with K.S.A. 12-512b on this 5th day of June, 2015.

Tricia L. Robello, LS #1246
Deputy County Surveyor
Sedgwick County, Kansas



WICHITA DESTINATION DEVELOPMENT

Prepared For:
Wichita Destination Developers, Inc.
1707 N. Waterfront Parkway
Wichita, KS 67206
(316) 685-5341

Date of Preparation:
May 28, 2014



1138 W. CAMBRIDGE CIRCLE DRIVE
KANSAS CITY, KANSAS 66103
913.317.9500
WWW.RIC-CONSULT.COM

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

KANSAS ONE CALL: (316) 687-2470

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

AT&T 1-800-246-8464
BLACK HILLS ENERGY 1-800-694-8989
CITY OF WICHITA WATER 1-316-268-4555
CITY OF WICHITA SEWER 1-316-268-4073
CITY OF WICHITA STORMWATER 1-316-268-4090
CITY OF WICHITA TRAFFIC 1-316-268-4034
COX COMMUNICATIONS 1-888-249-3530
KANSAS GAS SERVICE 1-888-482-4950
WESTAR ENERGY 1-800-544-4857
3. UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
4. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
5. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
6. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING EXISTING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
8. THE WATER DISTRIBUTION DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES.
9. THE CONTRACTOR SHALL NOTIFY THE CONSULTANT ENGINEER AND TOM MASON WITH THE CITY AT 316-268-4574 WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION. STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. IF TRAFFIC IS IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER, BRIAN COON AT TRAFFIC@WICHITA.GOV BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTORS RESPONSIBILITY.
11. ALL ELEVATIONS SHOWN ARE NAVD 88.
12. ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.

GENERAL NOTES CONT.

13. ALL EXISTING PAVEMENT AND CURB AND GUTTER WITHIN THE CONSTRUCTION LIMITS SHALL BE SAW CUT, FULL DEPTH, TO THE LINES SHOWN ON THE PLANS, OR TO THE NEAREST JOINT, AND REMOVED, UNLESS OTHERWISE NOTED. IF REMOVAL LIMITS ARE WITHIN THREE FEET OF A JOINT, REMOVE TO THE JOINT.
14. ALL TRAFFIC CONTROL DEVICES IN THE WORK ZONE (INCLUDING MARKINGS AND SIGNS) AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES IN THE TRAVELED WAY OR CLEAR ZONE SHALL BE CRASHWORTHY (NCHRP REPORT 350 OR MASH COMPLIANT).
[HTTP://SAFETY.FHWA.DOT.GOV/ROADWAY_DEPT/POLICY_GUIDE/ROAD_HARDWARE/WZD](http://SAFETY.FHWA.DOT.GOV/ROADWAY_DEPT/POLICY_GUIDE/ROAD_HARDWARE/WZD)
15. ALL CONSTRUCTION EQUIPMENT, INCLUDING VEHICLES, MATERIALS, AND DEBRIS, SHALL BE STORED OUTSIDE OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, OBJECT IDENTIFIERS, AND/OR BARRICADES IN COMPLIANCE WITH THE MUTCD.
16. EXCEPT WHEN REQUIRED FOR SAFETY, TRAFFIC CONTROL SHALL NOT BLOCK ANY LANES OR SIDEWALKS WHEN WORK IS NOT BEING PERFORMED.

PAVEMENT SUBGRADE COMPACTION AND PREPARATION

PAVEMENT SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH SECTION 302.3 OF THE STANDARD SPECIFICATIONS.

SPECIAL NOTES FOR PREPARED SUBGRADE ARE AS FOLLOWS:

PRIOR TO PAVING, THE PREPARED SUBGRADE SHOULD BE PROOF-ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK OR SIMILAR TYPE OF PNEUMATIC TIRED EQUIPMENT WITH A MINIMUM GROSS WEIGHT OF NINE (9) TONS PER SINGLE AXLE.

LOCALIZED SOFT AREAS IDENTIFIED SHOULD BE REPAIRED PRIOR TO PAVING. MOISTURE CONTENT OF THE SUBGRADE SHOULD BE MAINTAINED BETWEEN 2% AND +3% OF THE OPTIMUM AT THE TIME OF PAVING. IT MAY REQUIRE REWORK WHEN THE SUBGRADE IS OUTSIDE OF THESE OPTIMUM RANGES.

CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED TO PREVENT UNNECESSARY DISTURBANCE OF THE PAVEMENT SUBGRADE. DISTURBED AREAS SHOULD BE REMOVED AND REPLACED WITH SUITABLE AND PROPERLY COMPACTED MATERIAL AS DIRECTED BY THE ENGINEER.

THE EDGES OF COMPACTED FILL SHOULD EXTEND A MINIMUM TWO (2) FEET BEYOND THE EDGES OF THE PAVEMENT, OR A DISTANCE EQUAL TO THE DEPTH OF FILL BENEATH THE PAVEMENT, WHICHEVER IS GREATER. THE MEASUREMENT SHOULD BE TAKEN FROM THE OUTSIDE EDGE OF THE PAVEMENT TO THE TOE OF THE FILL SLOPE.

| Roadway Quantities | | |
|---|-------|----|
| Sidewalk | 732 | SY |
| Concrete Pavement (Non-Reinforced Dowel Joint) | 3,813 | SY |
| 6" Crushed Rock Subgrade | 4,646 | SY |
| Grading-Cut | 512 | CY |
| Grading-Fill | 1,157 | CY |
| Type 1 Curb & Gutter | 1,239 | LF |
| Type 2 Curb & Gutter | 256 | LF |
| Type 3 Curb & Gutter | 894 | LF |
| Sidewalk Ramp | 2 | EA |
| Left Turn Arrow Pavement Marking | 1 | EA |
| Through Arrow Pavement Marking | 1 | EA |
| Combination Left/Straight Turn Arrow Pavement Marking | 2 | EA |
| 6" Broken White Lane Line Pavement Marking | 490 | LF |
| 6" Solid White Lane Line Pavement Marking | 608 | LF |
| Double 6" Solid Yellow Lane Line | 36 | LF |
| Exterior Roundabout Broken White Lane Line Pavement Marking | 125 | LF |
| Interior Roundabout Broken White Lane Line Pavement Marking | 42 | LF |
| 2'x10' Crosswalk Line | 22 | EA |
| Signs | 1 | LS |
| Sediment Fence | 710 | LF |
| Back of Curb Protection (8" Wide) | 2,134 | LF |
| 4" PVC Conduit | 191 | LF |

* SEE SHEET NO 17

QUANTITIES ARE FOR INFORMATION ONLY. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO CONSTRUCTION.

| GREENWICH COURT BASELINE TABLE | | |
|--------------------------------|------------|------------|
| STATION | NORTHING | EASTING |
| 10+00.00 | 1702585.65 | 1685981.12 |
| 27+00.00 | 1702601.71 | 1687681.04 |
| 32+93.00 | 1702607.31 | 1688274.02 |

| PRIVATE ENTRANCE BASELINE TABLE | | |
|---------------------------------|------------|------------|
| STATION | NORTHING | EASTING |
| 10+00.00 | 1702604.56 | 1687984.03 |
| 11+08.80 | 1702705.14 | 1688025.53 |
| 11+48.97 | 1702744.32 | 1688033.08 |
| 12+01.04 | 1702796.38 | 1688032.54 |

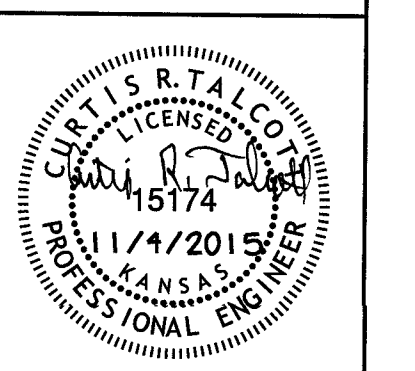
BENCHMARKS:

- TBM 1: Chiseled Square cut on E. Curb of island in center of Greenwich Road. Approximately 60' S. of intersection of westbound ramp to K-96. RIC Project Datum Elev. = 1373.08
- TBM 2: Chiseled Square cut on south curb of 27th Street approximately 690 feet east of intersection of Greenwich Road. RIC Project Datum Elev. = 1378.40
- TBM 3: Chiseled Square cut on south side of 27th Street approximately 330 feet east of intersection of Greenwich Road. RIC Project Datum Elev. = 1378.36

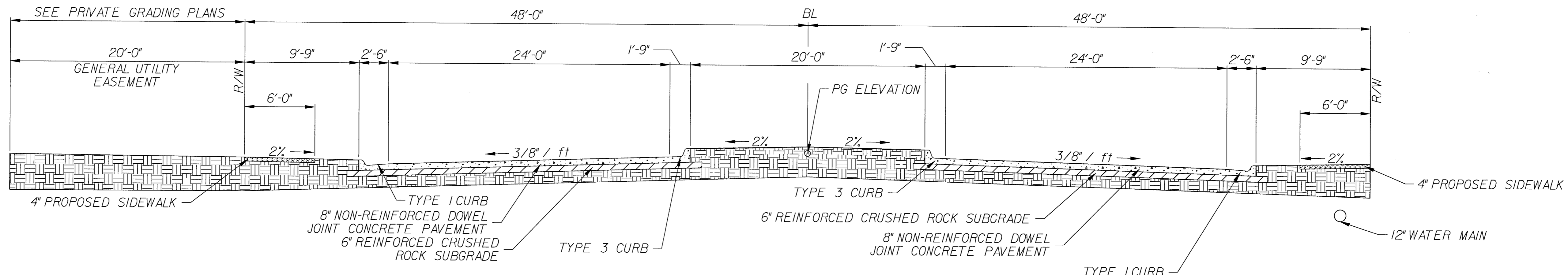
11/4/2015 2:16:13 PM Design\2015\15-0172 Greenwich Court Extension\DWG\Sheets\15-0172 Roadway\15-0172 General Notes and Quantities.dgn

| NO. | BY | DATE | REVISION |
|-----|--------|------------|-------------------------|
| 1. | IMC CT | 8/31/2015 | ORIGINAL SUBMITTAL |
| 2. | VJZ CT | 10/19/2016 | REVISE PRIVATE ENTRANCE |

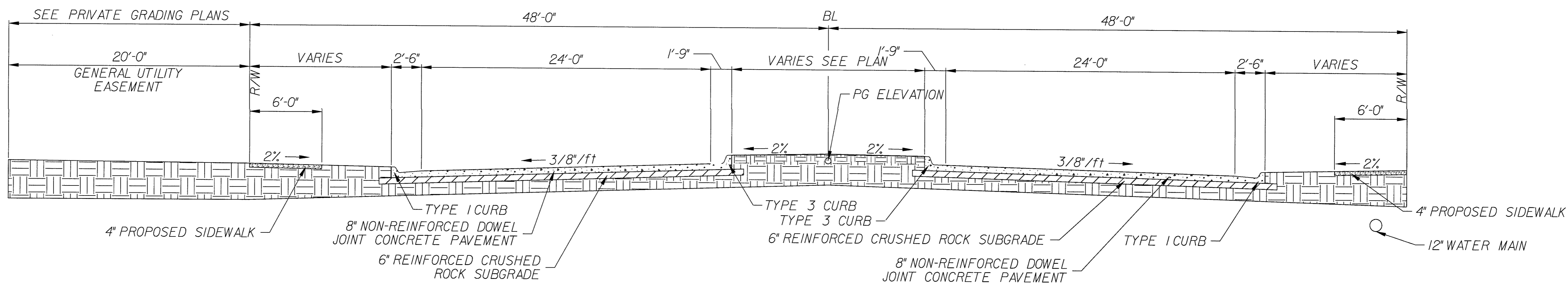
Renaissance Infrastructure Consulting
5015 NW CANAL STREET, SUITE 100
RIVERSIDE, MO, 64150 816.800.0950
WWW.RIC-CONSULT.COM



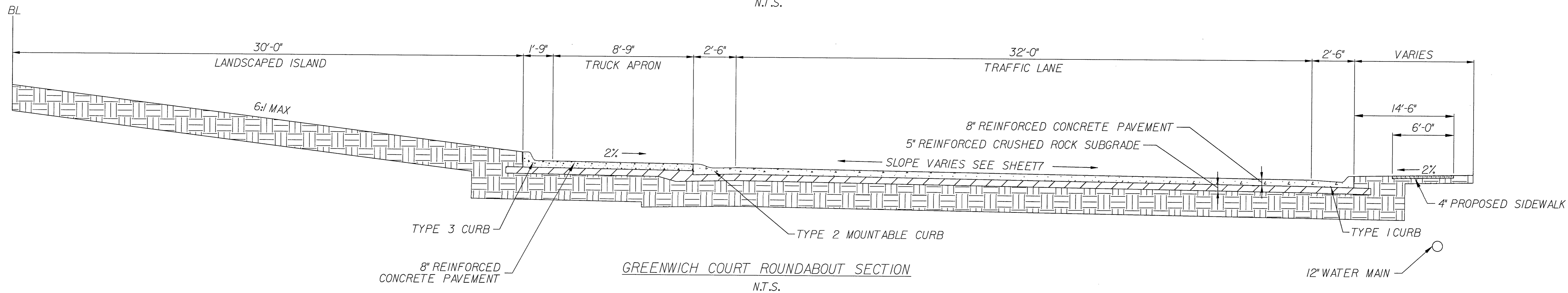
NOTES:
 1) SEE DRAINAGE PLANS FOR UNDERDRAIN DETAIL AND LOCATION.
 2) SEE GENERAL NOTES, SHEET 2, FOR COMPACTION REQUIREMENTS.
 3) SUBJECT TO CITY AND ENGINEER'S APPROVAL 6" CRUSHED CONCRETE SUBGRADE MAY BE USED IN LIEU OF 6" CRUSHED ROCK SUBGRADE.



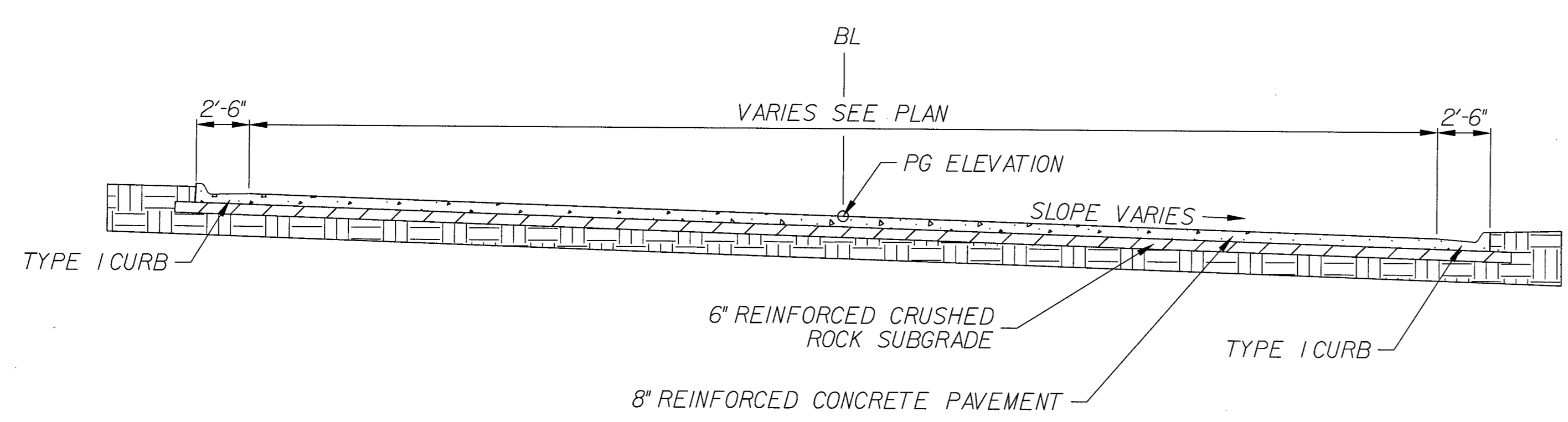
TYPICAL SECTION - GREENWICH COURT - STA.25+70 TO STA.27+89.82
 N.T.S.



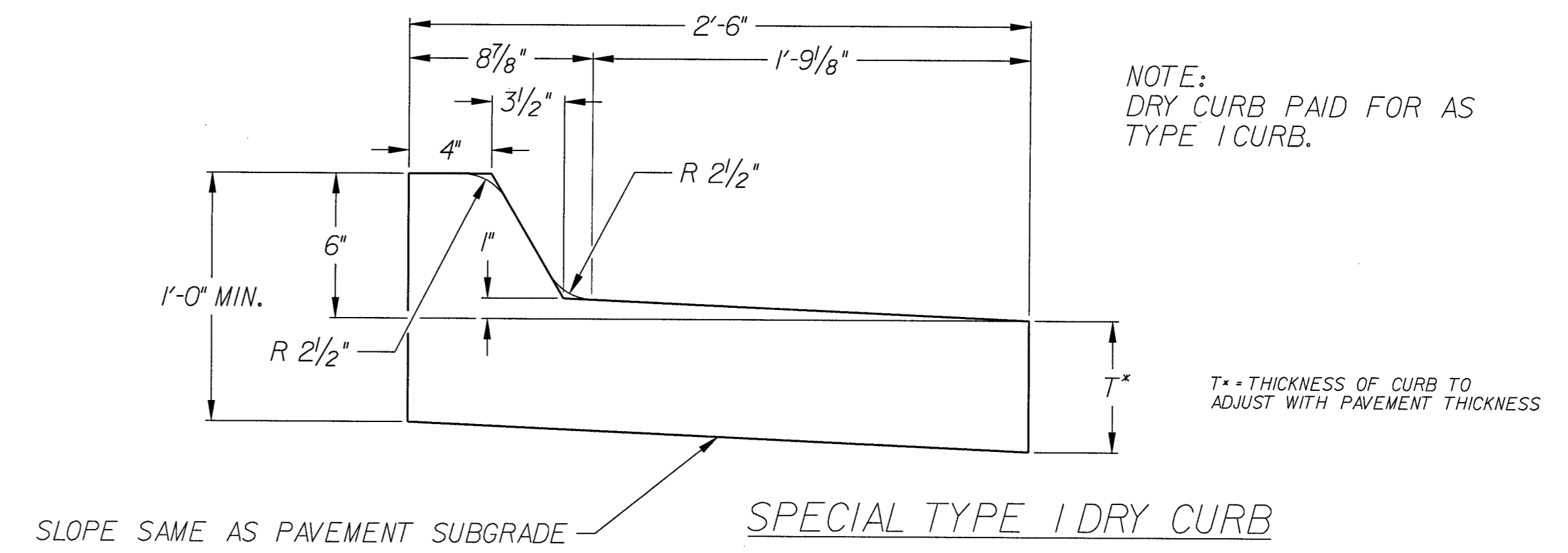
TYPICAL SECTION - GREENWICH COURT - STA.27+89.82 TO STA.28+90.00
 N.T.S.



GREENWICH COURT ROUNDABOUT SECTION
 N.T.S.



TYPICAL SECTION - PRIVATE ENTRANCE - STA.10+75 TO STA.11+53.23
 N.T.S.



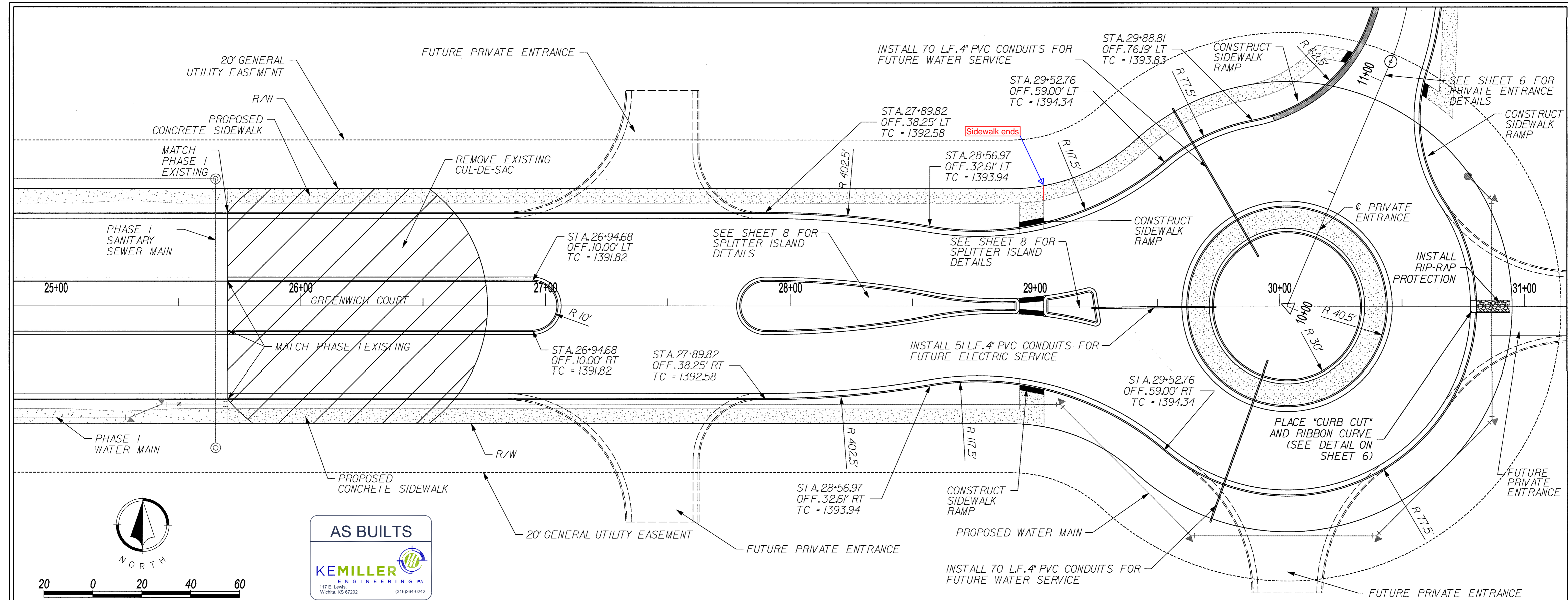
SPECIAL TYPE 1 DRY CURB
 SLOPE SAME AS PAVEMENT SUBGRADE

| NO. | BY | DATE | REVISION |
|-----|--------|------------|---|
| 3. | VIZ CT | 10/19/2015 | REUSE PRIVATE ENTRANCE |
| 2. | MAC TC | 10/05/15 | UPDATED TYPICAL SECTIONS PER KIRK MILLER COMMENTS |
| 1. | MAC CT | 03/12/15 | ORIGINAL SUBMITTAL |

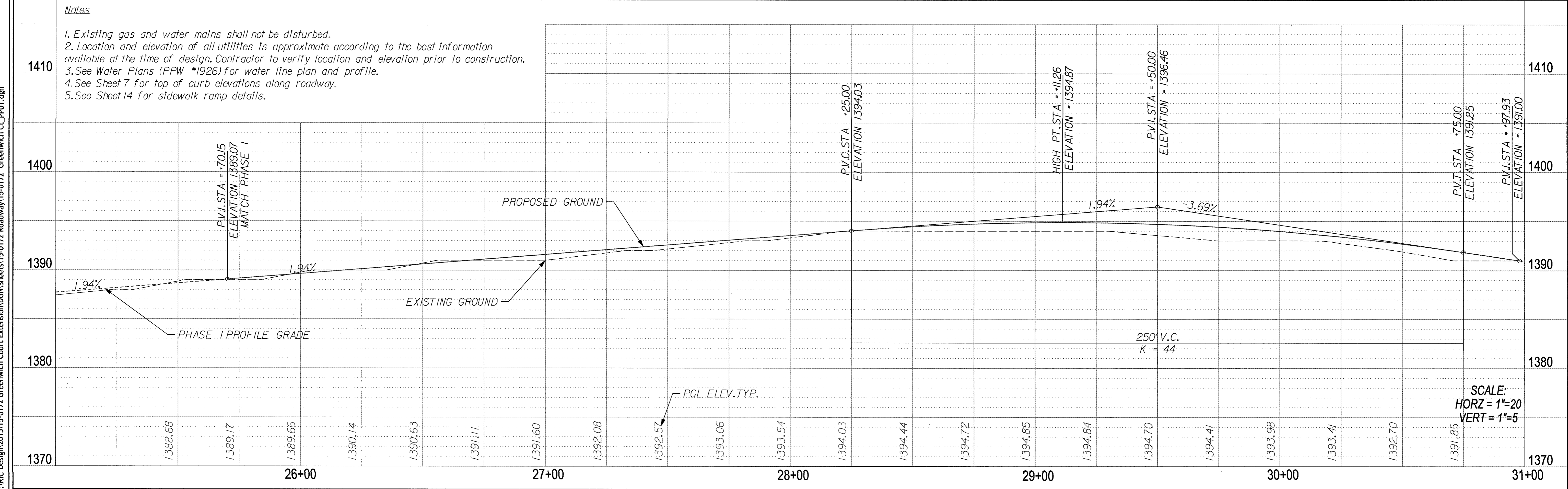
Renaissance Infrastructure Consulting
 5015 NW CANAL STREET, SUITE 100
 RIVERSIDE MO, 64150
 816.800.0950
 WWW.RIC-CONSULT.COM

CHRIS R. TALLO
 LICENSED PROFESSIONAL ENGINEER
 15174
 11/14/2015
 KANSAS
 PROFESSIONAL ENGINEER

11/14/2015 Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DMN\Sheets\15-0172_Roadway\15-0172_Typical Section.dgn



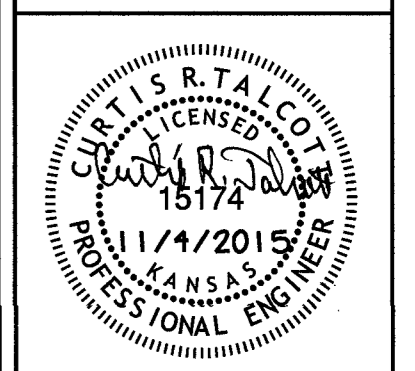
- Notes**
- Existing gas and water mains shall not be disturbed.
 - Location and elevation of all utilities is approximate according to the best information available at the time of design. Contractor to verify location and elevation prior to construction.
 - See Water Plans (PPW *1926) for water line plan and profile.
 - See Sheet 7 for top of curb elevations along roadway.
 - See Sheet 14 for sidewalk ramp details.



SCALE:
HORZ = 1"=20'
VERT = 1"=5'

| NO. | BY | DATE | REVISION |
|-----|-----|------------|---|
| 1. | MAC | 8/17/2015 | ORIGINAL SUBMITTAL |
| 2. | MAC | 10/05/2016 | REVISIONS MADE PER KIRK MILLER COMMENTS |
| 3. | TC | 10/18/2016 | REVISE PRIVATE ENTRANCE |

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11/14/2015 Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DN\Sheets\15-0172 Greenwich Ct_PP01.dgn

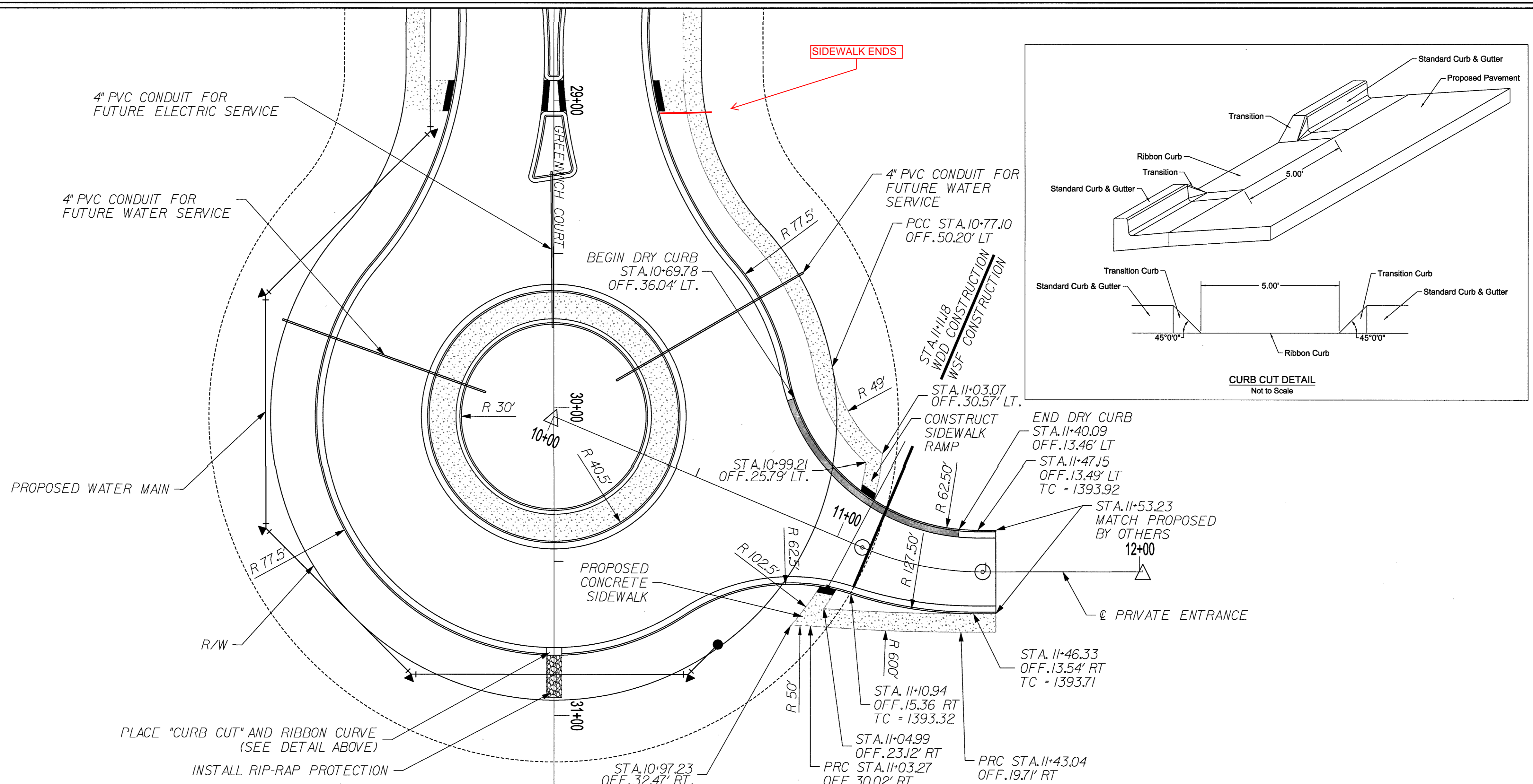
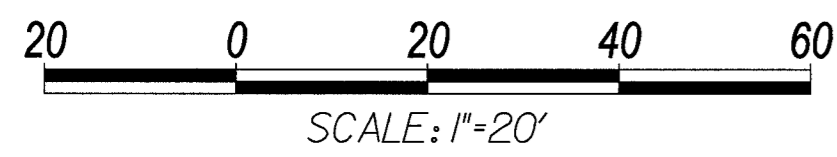
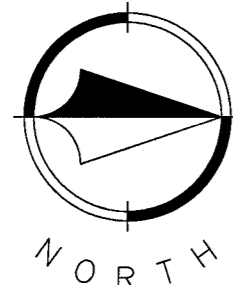
- Notes:
 1. See Water Plans for water line plan and profile.
 2. See Sanitary Sewer Plans for sanitary sewer plan and profile.
 3. See sheet 5 for Greenwich Ct. Details.
 4. See sheet 8 for roundout details

AS BUILTS

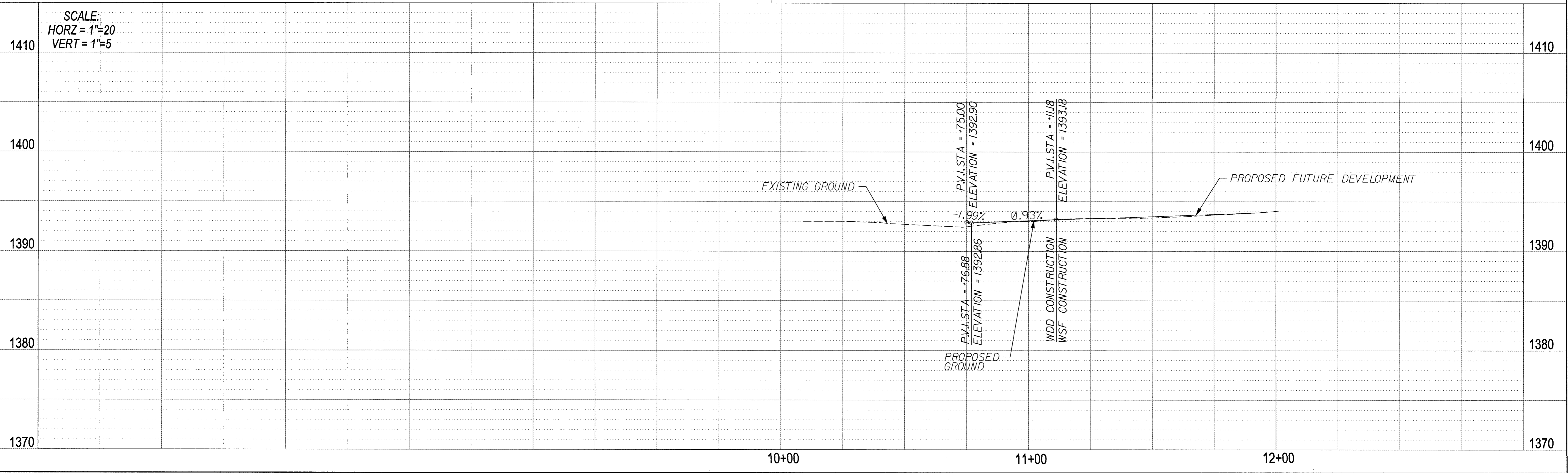


KEMILLER
ENGINEERING PA

117 E. Lewis,
Wichita, KS 67202 (316)264-0242



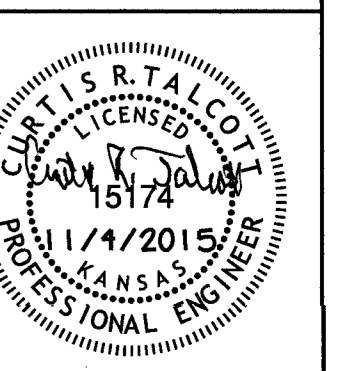
SCALE:
 HORZ = 1"=20'
 VERT = 1"=5'



| NO. | BY | DATE | REVISION |
|-----|-----|------------|--|
| 1. | MAC | 8/31/2015 | ORIGINAL SUBMITTAL |
| 2. | MAC | 10/09/15 | REVISED PER MILLER COMMENTS - UPDATED SIDEWALK ALIGNMENT |
| 3. | VAZ | 10/19/2015 | REVISE PRIVATE ENTRANCE |

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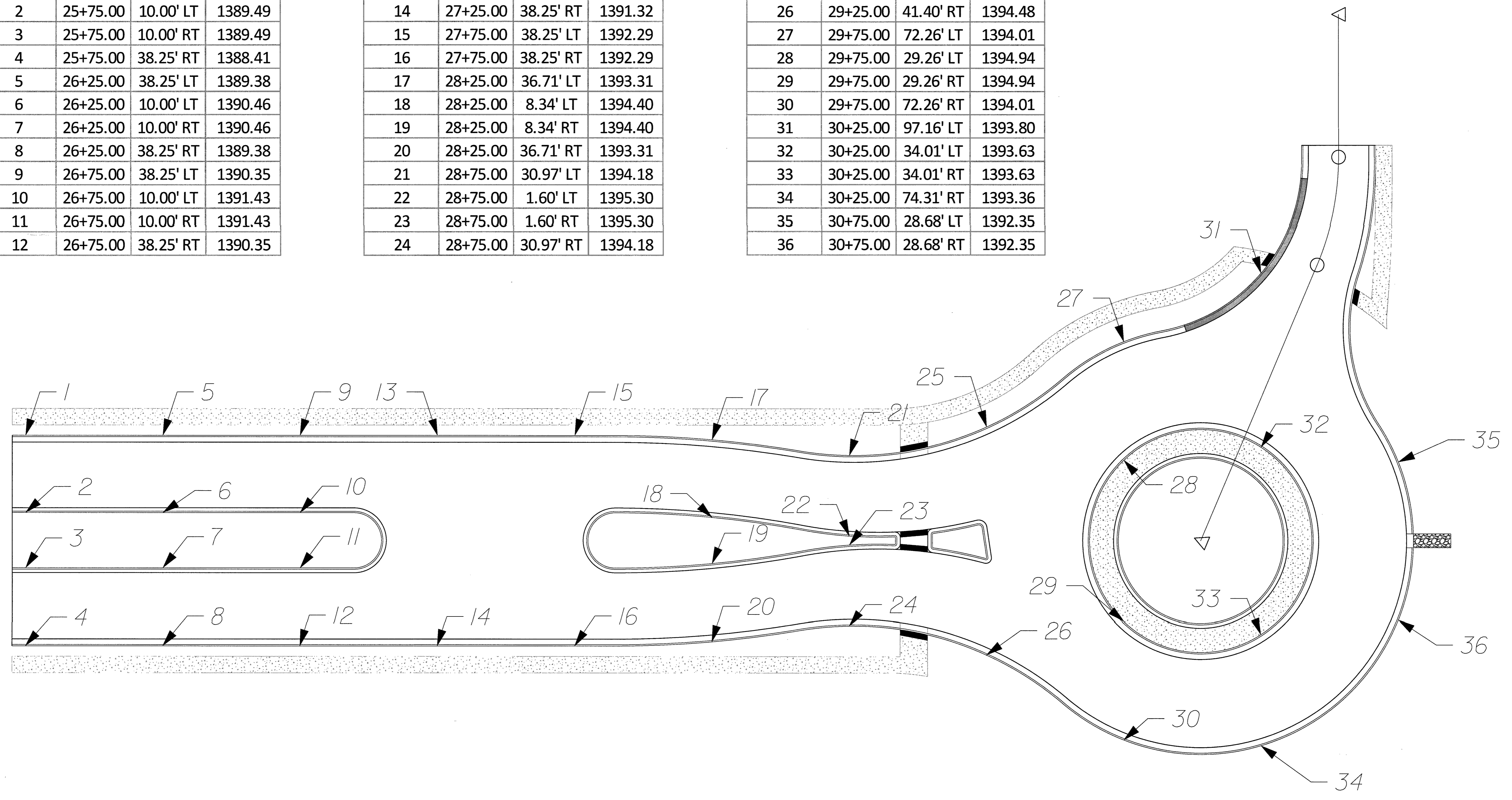


11/4/2015 Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DCM\Sheets\15-0172 Roadway\15-0172 Private Entrance_PP01.dgn

| Label | Station | Offset | TC |
|-------|----------|-----------|---------|
| 1 | 25+75.00 | 38.25' LT | 1388.41 |
| 2 | 25+75.00 | 10.00' LT | 1389.49 |
| 3 | 25+75.00 | 10.00' RT | 1389.49 |
| 4 | 25+75.00 | 38.25' RT | 1388.41 |
| 5 | 26+25.00 | 38.25' LT | 1389.38 |
| 6 | 26+25.00 | 10.00' LT | 1390.46 |
| 7 | 26+25.00 | 10.00' RT | 1390.46 |
| 8 | 26+25.00 | 38.25' RT | 1389.38 |
| 9 | 26+75.00 | 38.25' LT | 1390.35 |
| 10 | 26+75.00 | 10.00' LT | 1391.43 |
| 11 | 26+75.00 | 10.00' RT | 1391.43 |
| 12 | 26+75.00 | 38.25' RT | 1390.35 |

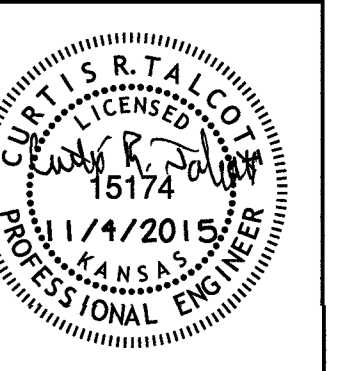
| Label | Station | Offset | TC |
|-------|----------|-----------|---------|
| 13 | 27+25.00 | 38.25' LT | 1391.32 |
| 14 | 27+25.00 | 38.25' RT | 1391.32 |
| 15 | 27+75.00 | 38.25' LT | 1392.29 |
| 16 | 27+75.00 | 38.25' RT | 1392.29 |
| 17 | 28+25.00 | 36.71' LT | 1393.31 |
| 18 | 28+25.00 | 8.34' LT | 1394.40 |
| 19 | 28+25.00 | 8.34' RT | 1394.40 |
| 20 | 28+25.00 | 36.71' RT | 1393.31 |
| 21 | 28+75.00 | 30.97' LT | 1394.18 |
| 22 | 28+75.00 | 1.60' LT | 1395.30 |
| 23 | 28+75.00 | 1.60' RT | 1395.30 |
| 24 | 28+75.00 | 30.97' RT | 1394.18 |

| Label | Station | Offset | TC |
|-------|----------|-----------|---------|
| 25 | 29+25.00 | 41.40' LT | 1394.48 |
| 26 | 29+25.00 | 41.40' RT | 1394.48 |
| 27 | 29+75.00 | 72.26' LT | 1394.01 |
| 28 | 29+75.00 | 29.26' LT | 1394.94 |
| 29 | 29+75.00 | 29.26' RT | 1394.94 |
| 30 | 29+75.00 | 72.26' RT | 1394.01 |
| 31 | 30+25.00 | 97.16' LT | 1393.80 |
| 32 | 30+25.00 | 34.01' LT | 1393.63 |
| 33 | 30+25.00 | 34.01' RT | 1393.63 |
| 34 | 30+25.00 | 74.31' RT | 1393.36 |
| 35 | 30+75.00 | 28.68' LT | 1392.35 |
| 36 | 30+75.00 | 28.68' RT | 1392.35 |



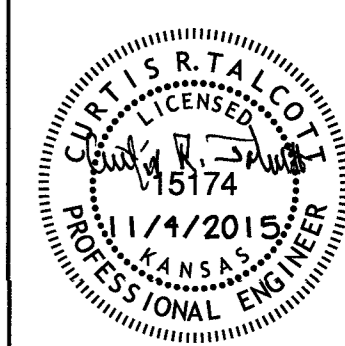
| NO. | REV. | DATE | BY | CD |
|-----|--------|------------|----|----|
| 3. | VOZ CT | 10/16/2015 | | |
| 2. | MUC TC | 03/12/2015 | | |
| 1. | MUC CT | 03/12/2015 | | |

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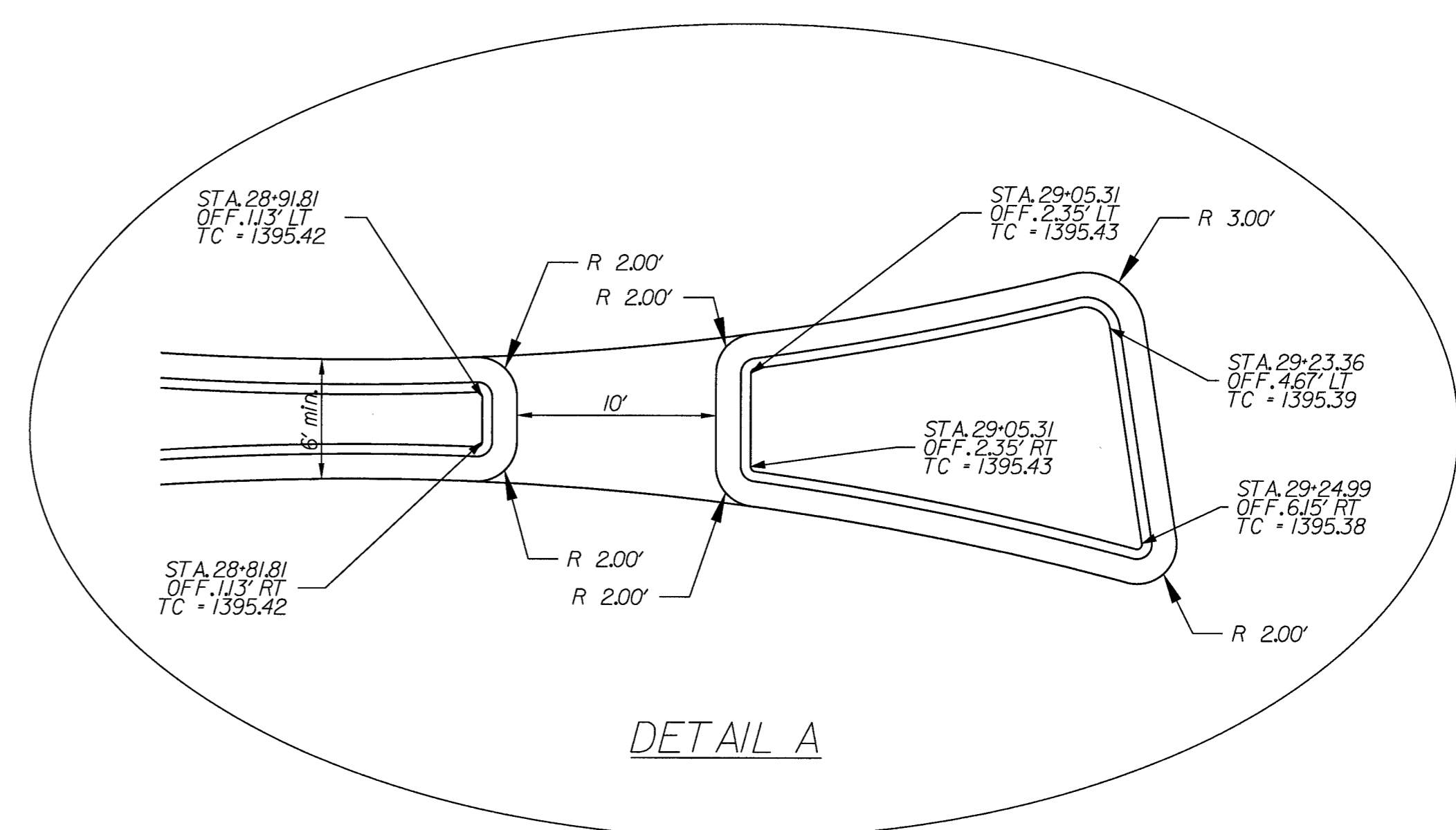


| | | | | |
|-----|-----|----|------------|-------------------------------|
| 3. | UZE | CT | 10/16/2015 | REVISION |
| 2. | M&C | TC | 10/05/2015 | REVISED FOR CHANGES IN MEDIAN |
| 1. | M&C | CT | 8/21/2015 | ORIGINAL SUBMITTAL |
| NO. | BY | DD | DATE | REVISION |

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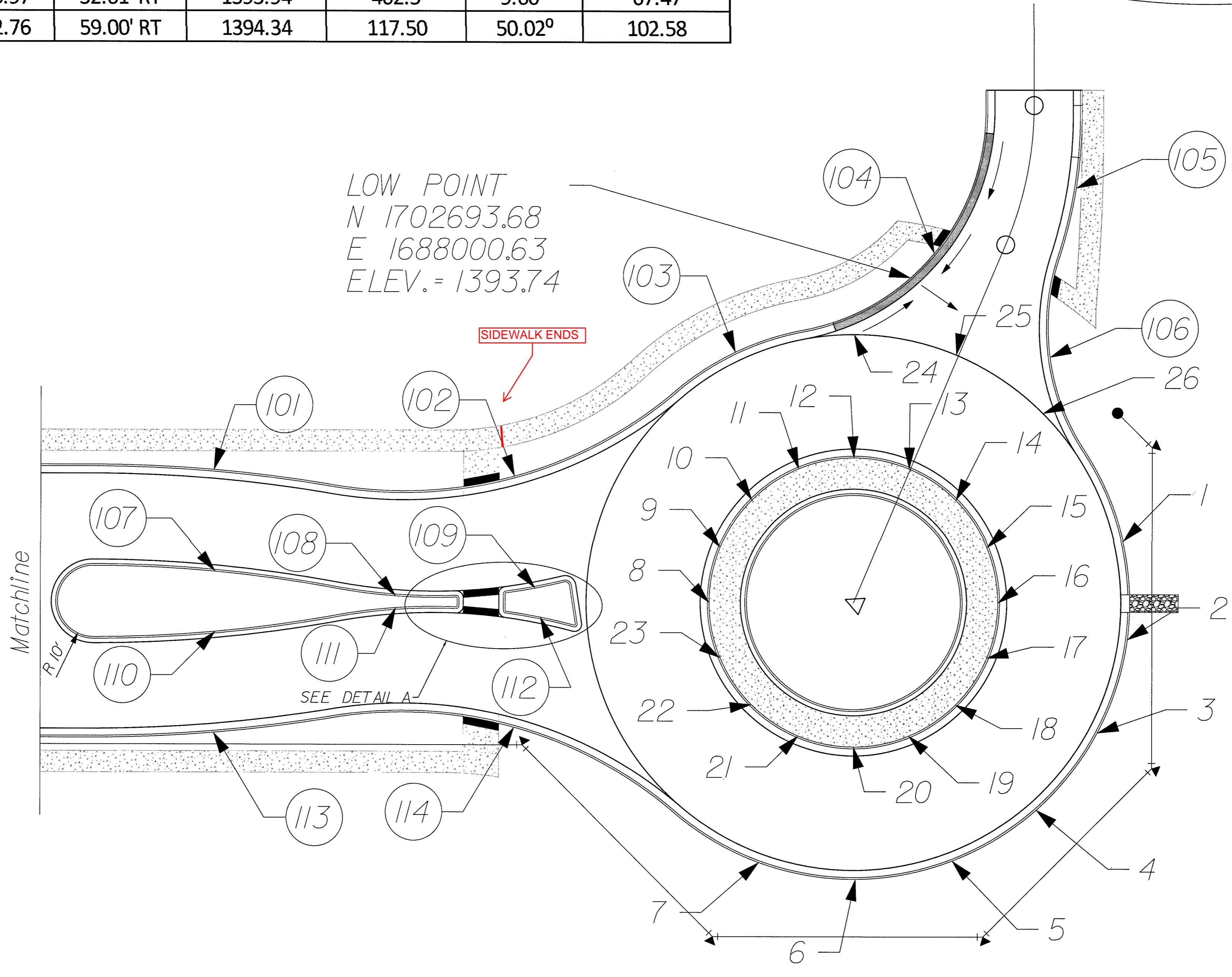


| Roundabout Curve Data | | | | | | | | | |
|-----------------------|------------|------------|--------------|------------|------------|--------------|---------------|--------|---------------|
| Label | PC Station | PC Offset | PC Elevation | PT Station | PT Offset | PT Elevation | Radius (Feet) | Δ | Length (Feet) |
| 101 | 27+89.82 | 38.25' LT | 1392.58 | 28+56.97 | 32.61' LT | 1393.94 | 402.5 | 9.60° | 67.47 |
| 102 | 28+56.97 | 32.61' LT | 1393.94 | 29+52.76 | 59.00' LT | 1394.34 | 117.50 | 50.02° | 102.58 |
| 103 | 29+52.76 | 59.00' LT | 1394.34 | 29+88.81 | 76.19' LT | 1393.83 | 77.50 | 29.87° | 40.40 |
| 104 | 29+88.81 | 76.19' LT | 1393.83 | 30+39.87 | 137.69' LT | 1393.92 | 62.50 | 79.51° | 86.73 |
| 105 | 30+66.87 | 136.29' LT | 1393.71 | 30+60.53 | 96.46' LT | 1393.30 | 127.50 | 18.20° | 40.50 |
| 106 | 30+60.53 | 96.46' LT | 1393.30 | 30+67.73 | 42.62' LT | 1392.55 | 62.5 | 51.51° | 56.19 |
| 107 | 27+89.82 | 10.00' LT | 1393.67 | 28+57.79 | 3.77' LT | 1395.06 | 374.25 | 10.47° | 68.36 |
| 108 | 28+57.79 | 3.77' LT | 1395.06 | 28+91.55 | 1.38' LT | 1395.41 | 151.75 | 12.80° | 33.91 |
| 109 | 29+05.53 | 2.60' LT | 1395.43 | 29+21.83 | 5.70' LT | 1395.39 | 151.75 | 6.27° | 16.60 |
| 110 | 27+89.82 | 10.00' RT | 1393.67 | 28+57.79 | 3.77' RT | 1395.06 | 374.25 | 10.47° | 68.36 |
| 111 | 28+57.79 | 3.77' RT | 1395.06 | 28+91.55 | 1.38' RT | 1395.41 | 151.75 | 12.80° | 33.91 |
| 112 | 29+05.53 | 2.60' RT | 1395.43 | 29+24.68 | 6.43' RT | 1395.31 | 151.75 | 7.38° | 19.55 |
| 113 | 27+89.82 | 38.25' RT | 1392.58 | 28+56.97 | 32.61' RT | 1393.94 | 402.5 | 9.60° | 67.47 |
| 114 | 28+56.97 | 32.61' RT | 1393.94 | 29+52.76 | 59.00' RT | 1394.34 | 117.50 | 50.02° | 102.58 |



| Roundabout Points | | | |
|-------------------|----------|-----------|----------|
| Label | Station | Offset | TC |
| 1 | 30+78.55 | 17.29' LT | 1392.22 |
| 2 | 30+79.83 | 10.22' RT | 1392.16 |
| 3 | 30+71.40 | 36.45' RT | 1392.45 |
| 4 | 30+54.33 | 58.07' RT | 1392.87 |
| 5 | 30+30.78 | 72.35' RT | 1393.29 |
| 6 | 30+03.72 | 77.50' RT | 1393.64 |
| 7 | 29+76.57 | 72.85' RT | 1393.99 |
| 8 | 29+62.50 | 0' RT | 1395.39 |
| 9 | 29+65.59 | 15.50' LT | 1395.28 |
| 10 | 29+74.36 | 28.64' LT | 1394.96 |
| 11 | 29+87.50 | 37.42' LT | 1394.58 |
| 12 | 30+03.00 | 40.50' LT | 1394.19 |
| 13 | 30+18.50 | 37.42' LT | 1393.81 |
| 14 | 30+31.64 | 28.64' LT | 1393.45 |
| 15 | 30+40.42 | 15.50' LT | 1393.18 |
| 16 | 30+43.50 | 0' RT | 1393.08 |
| 17 | 30+40.42 | 15.50' RT | 1393.18 |
| 18 | 30+31.64 | 28.64' RT | 1393.45 |
| 19 | 30+18.50 | 37.42' RT | 1393.81 |
| 20 | 30+03.00 | 40.50' RT | 1394.19 |
| 21 | 29+87.50 | 37.42' RT | 1394.58 |
| 22 | 29+74.36 | 28.64' RT | 1394.96 |
| 23 | 29+65.59 | 15.50' RT | 1395.28 |
| 24 | 30+03.00 | 75.00' LT | 1393.28* |
| 25 | 30+31.70 | 69.29' LT | 1392.85* |
| 26 | 30+56.03 | 53.03' LT | 1392.42* |

* - Elevations are Top of Pavement



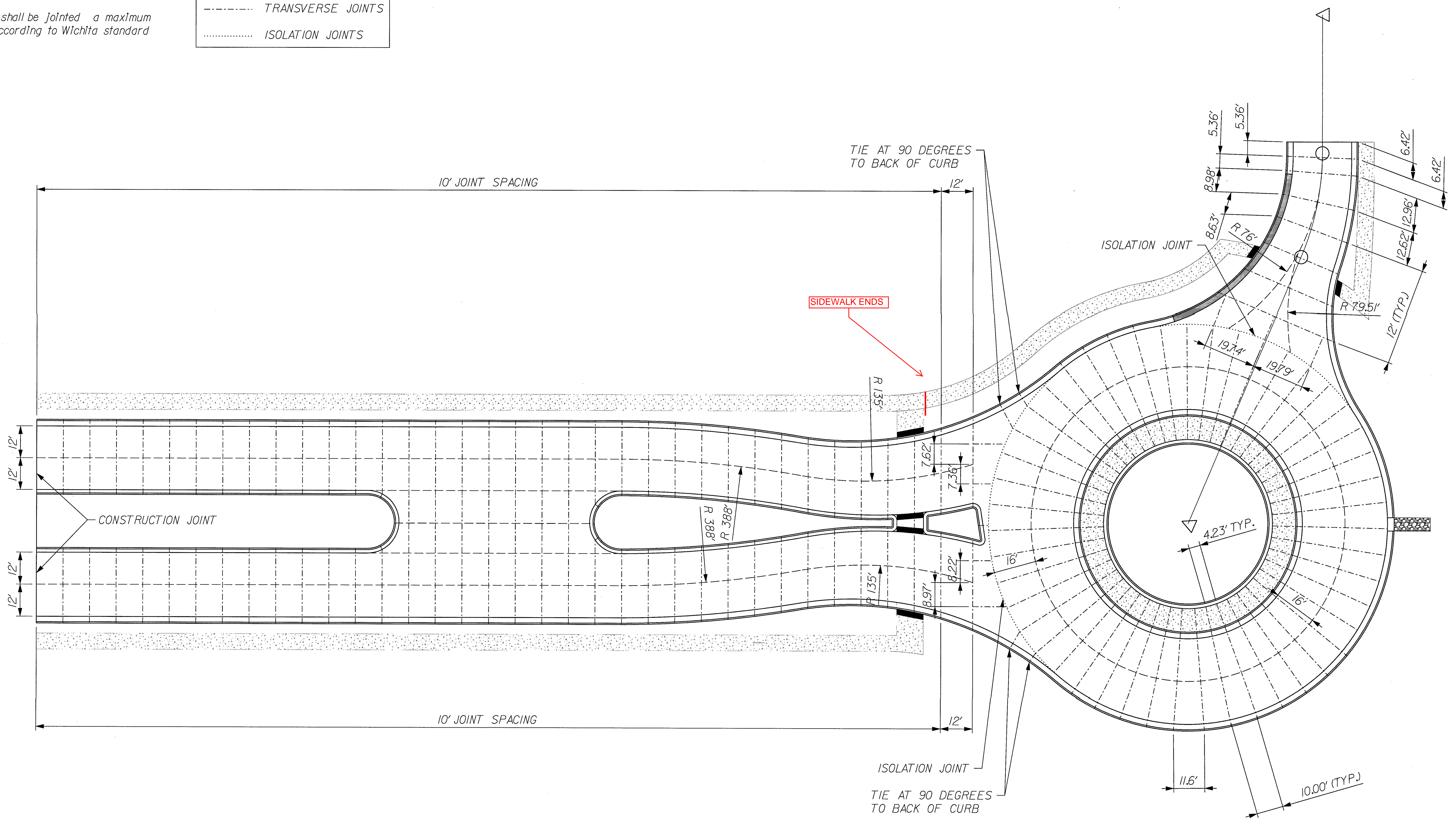
LEGEND
 FLOW ARROW
 DRY CURB

NORTH

20' 0 20' 40' 60'
SCALE: 1"=20'

Note:
 1. Contractor may recommend alternate joint plan. Contractor's joint plan to be approved by the engineer.
 2. Curb shall be jointed a maximum of 10' according to Wichita standard detail.

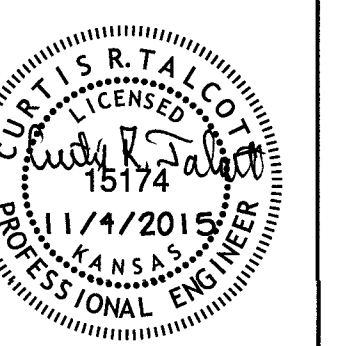
| LEGEND | |
|--------|---------------------|
| ----- | LONGITUDINAL JOINTS |
| ----- | TRANSVERSE JOINTS |
| | ISOLATION JOINTS |



Pavement Joint Plan

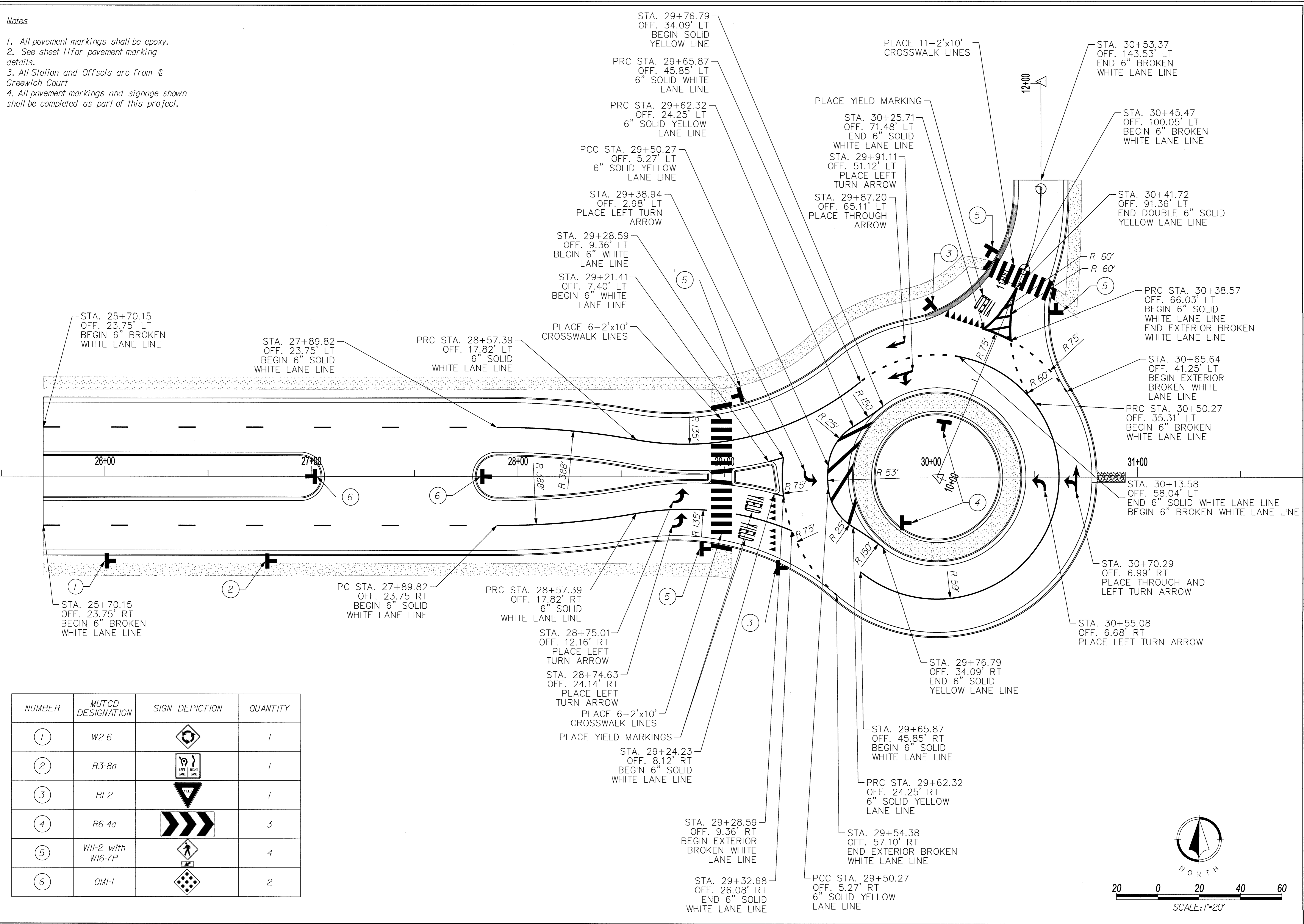
| NO. | BY | DATE | REVISION |
|-----|-----|---------------|-------------------------------|
| 3. | VJZ | TC 10/19/2015 | REVISE PRIVATE ENTRANCE |
| 2. | IMC | TC 10/05/2015 | REVISED FOR CHANGES IN MEDIAN |
| 1. | IMC | CT 8/31/2015 | ORIGINAL SUBMITTAL |

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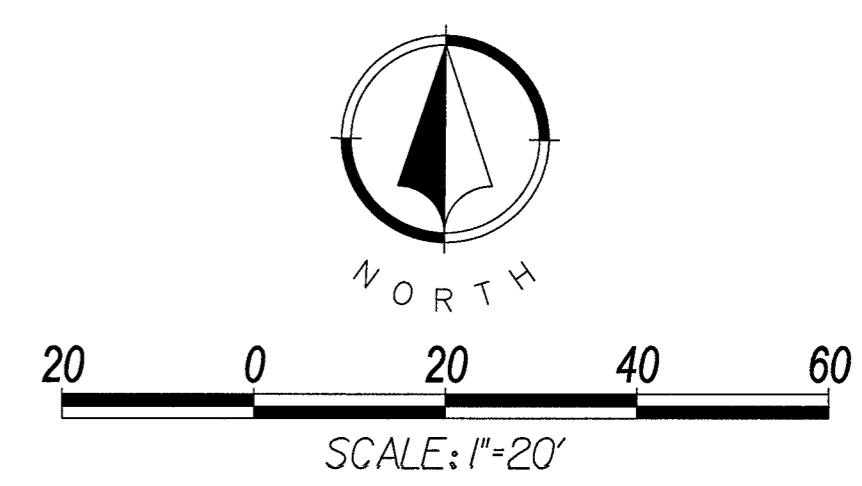


Notes

1. All pavement markings shall be epoxy.
2. See sheet 11 for pavement marking details.
3. All Station and Offsets are from \ominus Greenwich Court
4. All pavement markings and signage shown shall be completed as part of this project.



| NUMBER | MUTCD DESIGNATION | SIGN DEPICTION | QUANTITY |
|--------|-------------------|----------------|----------|
| 1 | W2-6 | | 1 |
| 2 | R3-8a | | 1 |
| 3 | R1-2 | | 1 |
| 4 | R6-4a | | 3 |
| 5 | W11-2 with W16-7P | | 4 |
| 6 | OMI-1 | | 2 |



Pavement Marking and Signage Plan

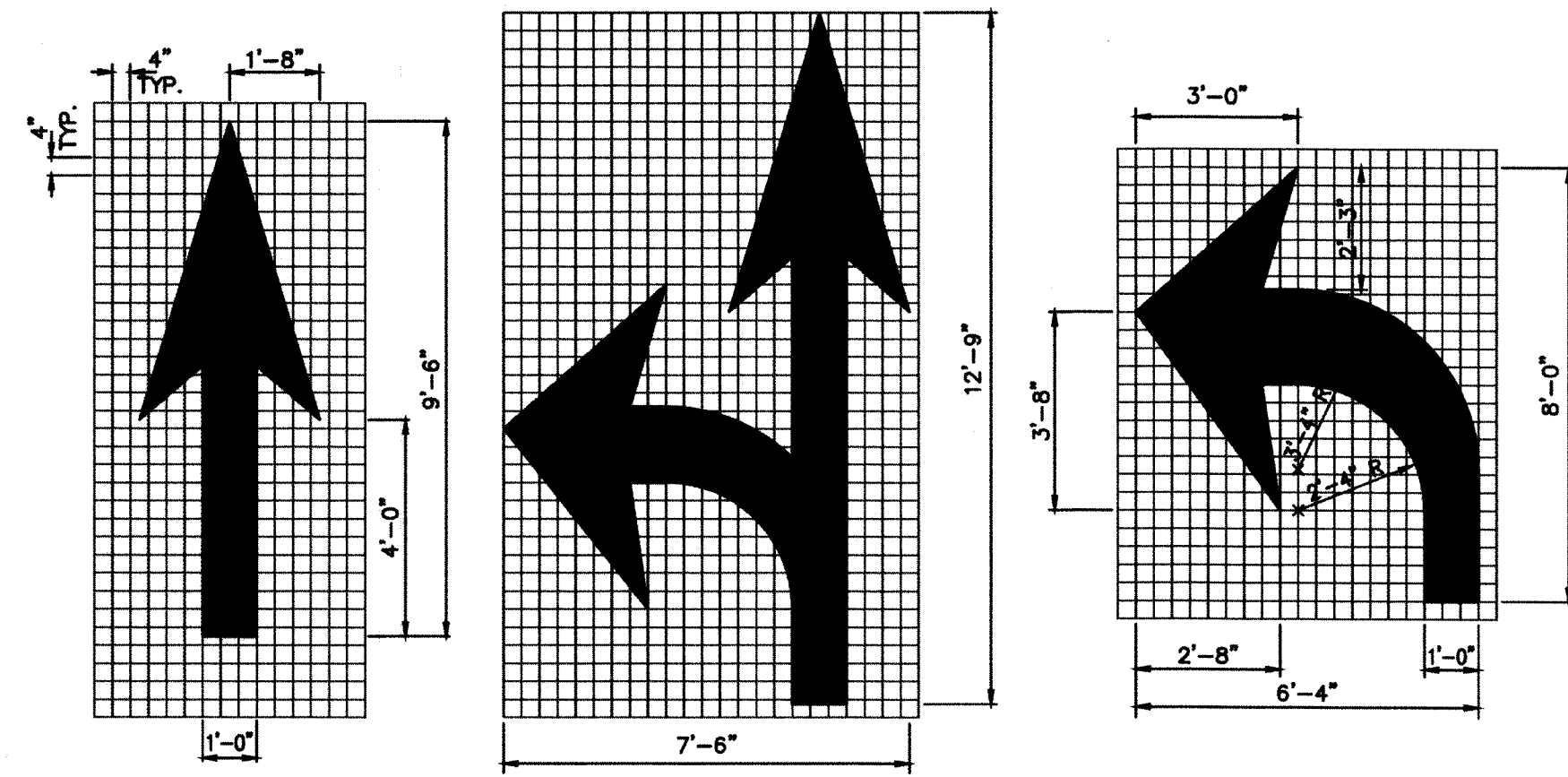
| NO. | BY | DATE | REVISION |
|-----|-----|------------|----------------------------------|
| 1. | MAC | 8/31/2015 | ORIGINAL SUBMITTAL |
| 2. | MAC | 10/05/2015 | REVISED PER KIRK MILLER COMMENTS |
| 3. | TC | 10/19/2015 | REVISE PRIVATE ENTRANCE |

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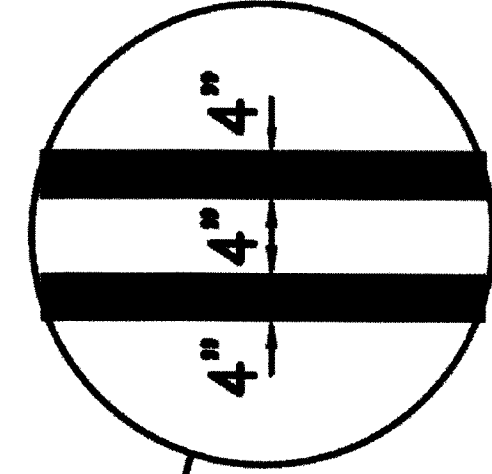
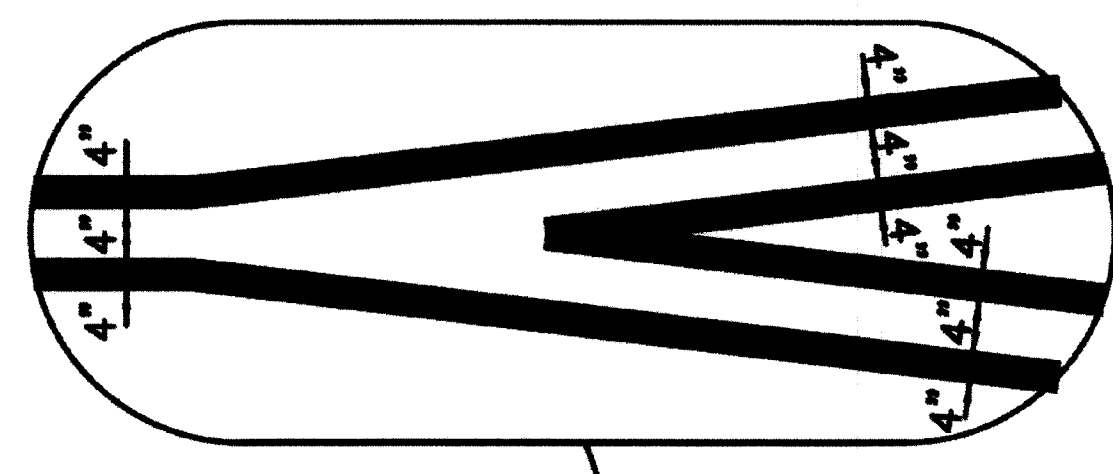
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Professional Engineer
1/4/2015
15174

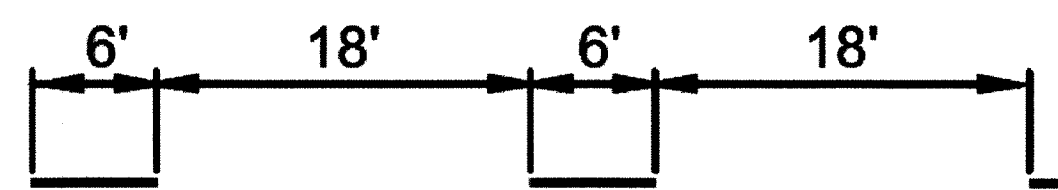
11/4/2015 Z:\RIC Design\2015\15-0172_Greenwich Court Extension\DCM\Sheets\15-0172_Roadway\15-0172_Pavement, Marking and Signage Plan.dgn



SYMBOL DETAILS



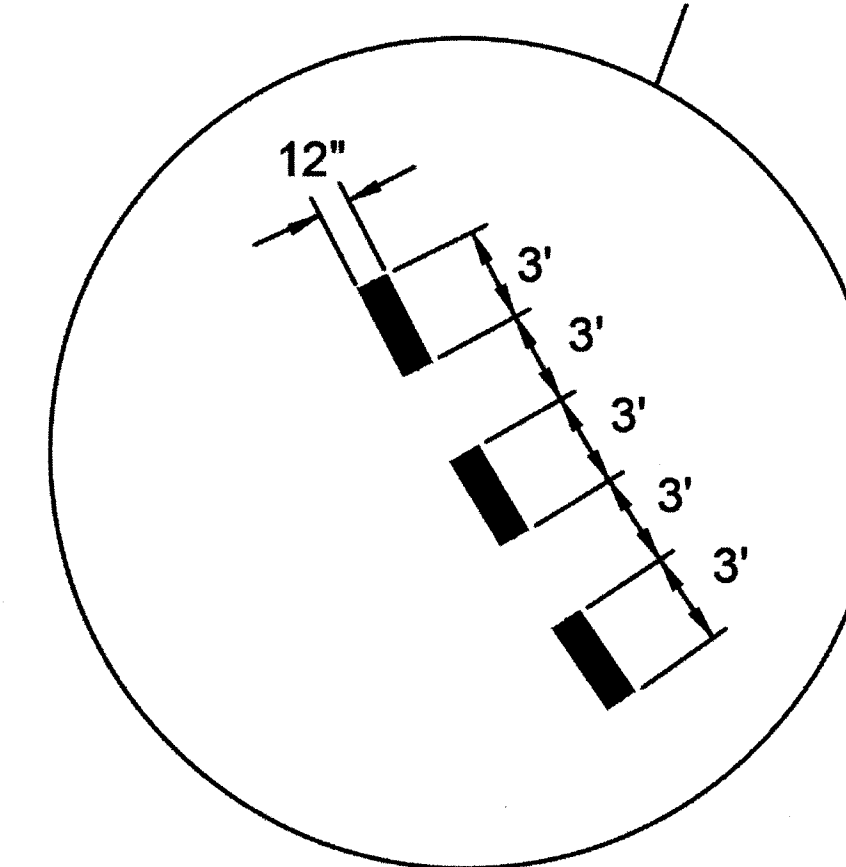
DOUBLE YELLOW LINE DETAILS



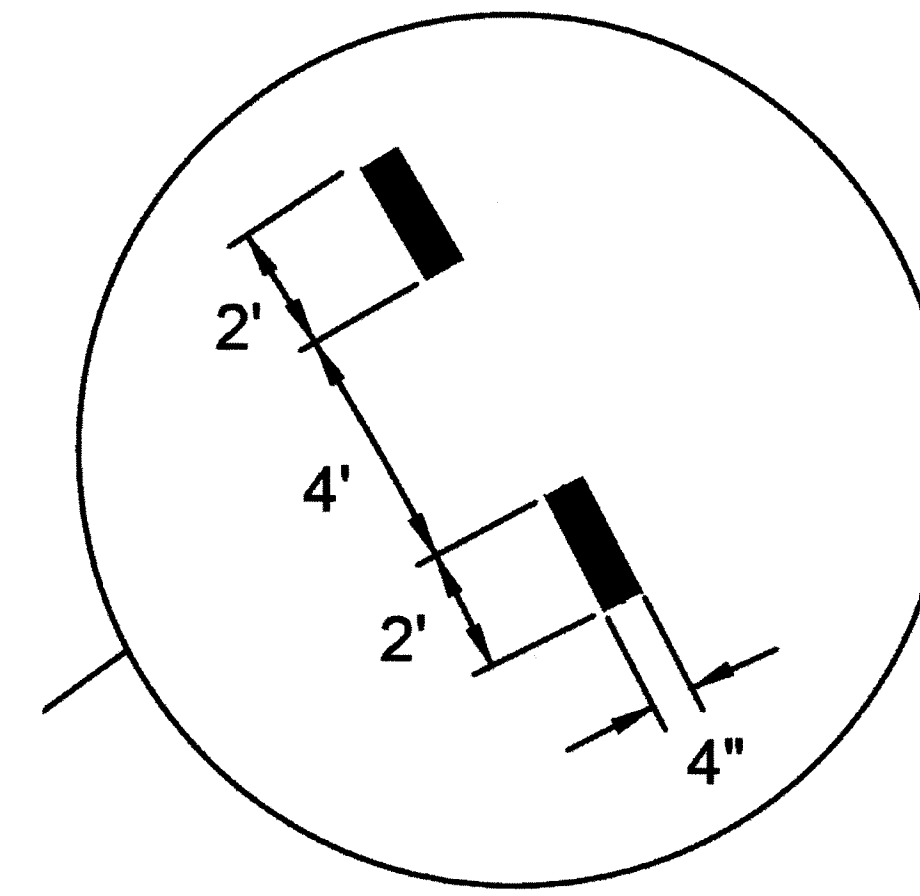
6" BROKEN WHITE LANE LINE DETAILS

Pavement Marking General Notes

1. All permanent pavement markings shall be provided and installed by the contractor as indicated in the plans or as directed by the City Inspector.
2. Pavement markings on concrete shall be per the specifications, unless otherwise indicated on the plans or directed by the City Inspector.
3. Skip lines shall not extend past the stop bar or into the crosswalk.
4. White broken lane lines shall be carried through intersections with private streets unless there is a left turn bay into the private street. Then a gap should be left in the broken white lane lines for the left turn movement to pass through.
5. The proposed permanent markings shall be laid out by the contractor in advance of the marking installation. Markings shall not be applied until the layout and conditions of the surface have been approved by the City Inspector.
6. All pavement markings shall be epoxy.
7. All pavement marking symbols shall be white.



EXTERIOR ROUNDABOUT
 BROKEN WHITE LANE LINE

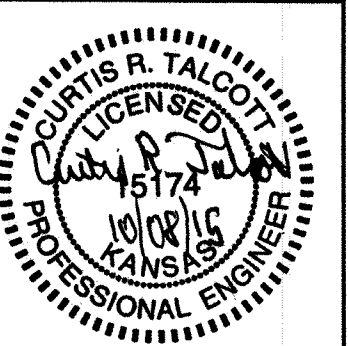


INTERIOR ROUNDABOUT
 BROKEN WHITE LANE LINE

Pavement Marking Details

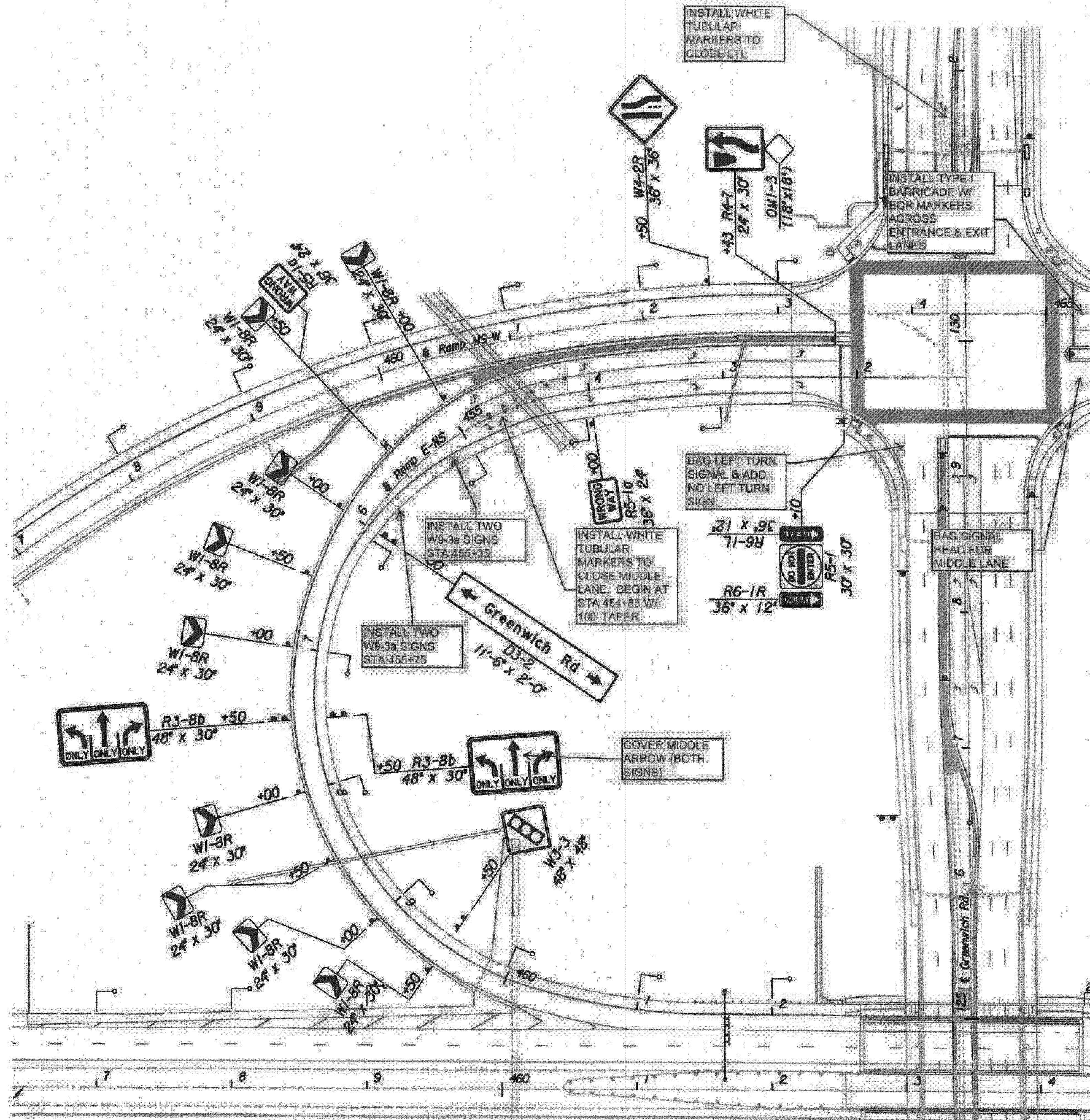
| NO. | BY | CD | DATE | REVISION |
|-----|-----|----|------------|------------------------------|
| | M/C | TC | 10/05/2015 | ADDED LEFT TURN ARROW DETAIL |
| | M/C | TC | 04/12/2015 | ORIGINAL SUBMITTAL |

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NOTES

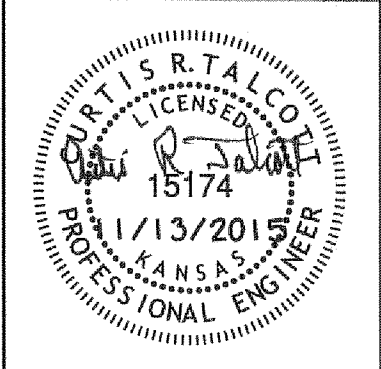
1. Temporary traffic control measures shown in this drawing shall be removed by contractor upon completion of Greenwich Ct. extension.
2. All traffic cameras shall be recalibrated to account for new current conditions.
3. Contractor shall contact Shawn Melles, City Engineer to determine where signs removed from project shall be delivered.

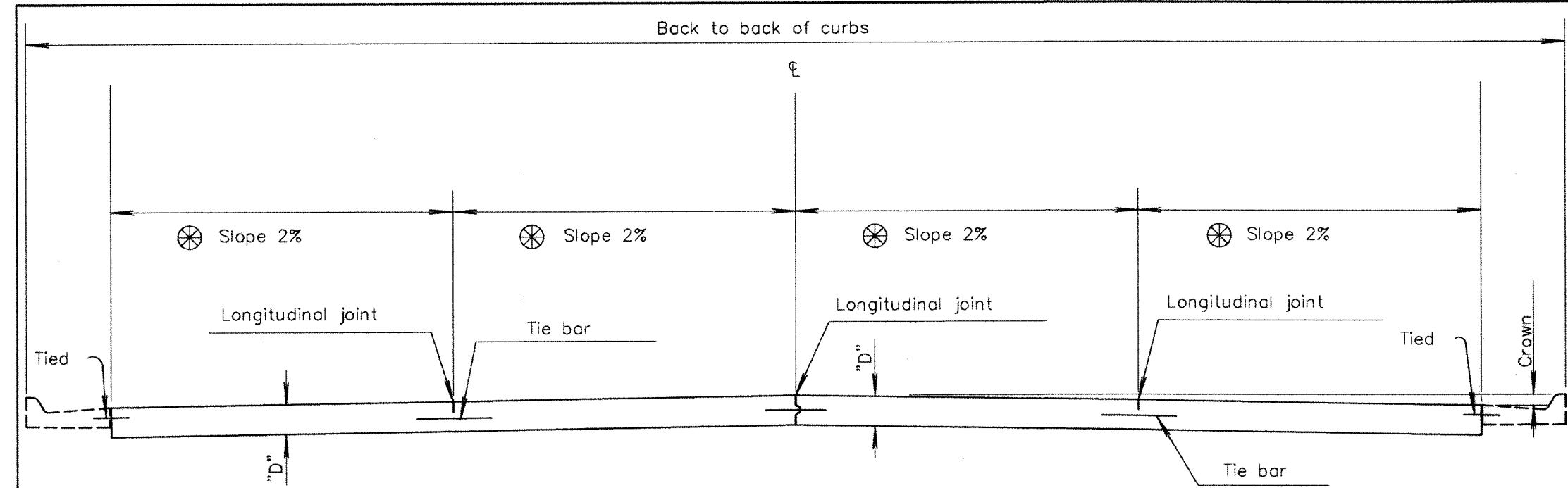


11/13/2015 Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DWG\Sheets\15-0172 Temporary Traffic Control Removal.dgn

| NO. | BY | DATE | REVISION |
|-----|--------|------------|---|
| 1. | JMAC | 08/12/2015 | ORIGINAL SUBMITTAL |
| 2. | VIZ TC | 11/13/2015 | ADDITION OF TEMPORARY TRAFFIC CONTROL REMOVAL SHEET |

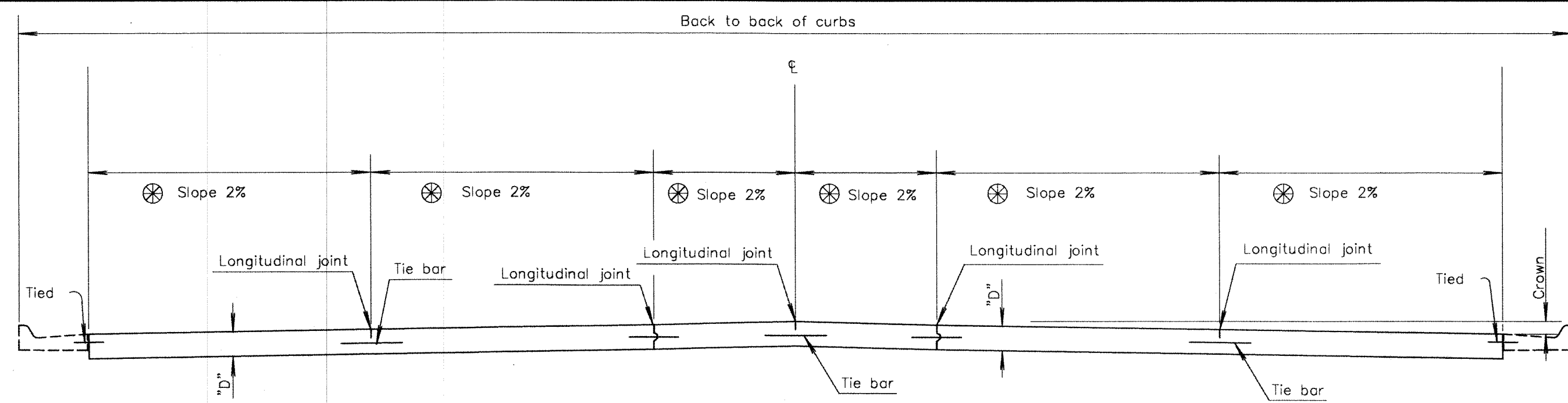
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TRANSVERSE SECTION
(4 - LANE WITH CURB & GUTTER)

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

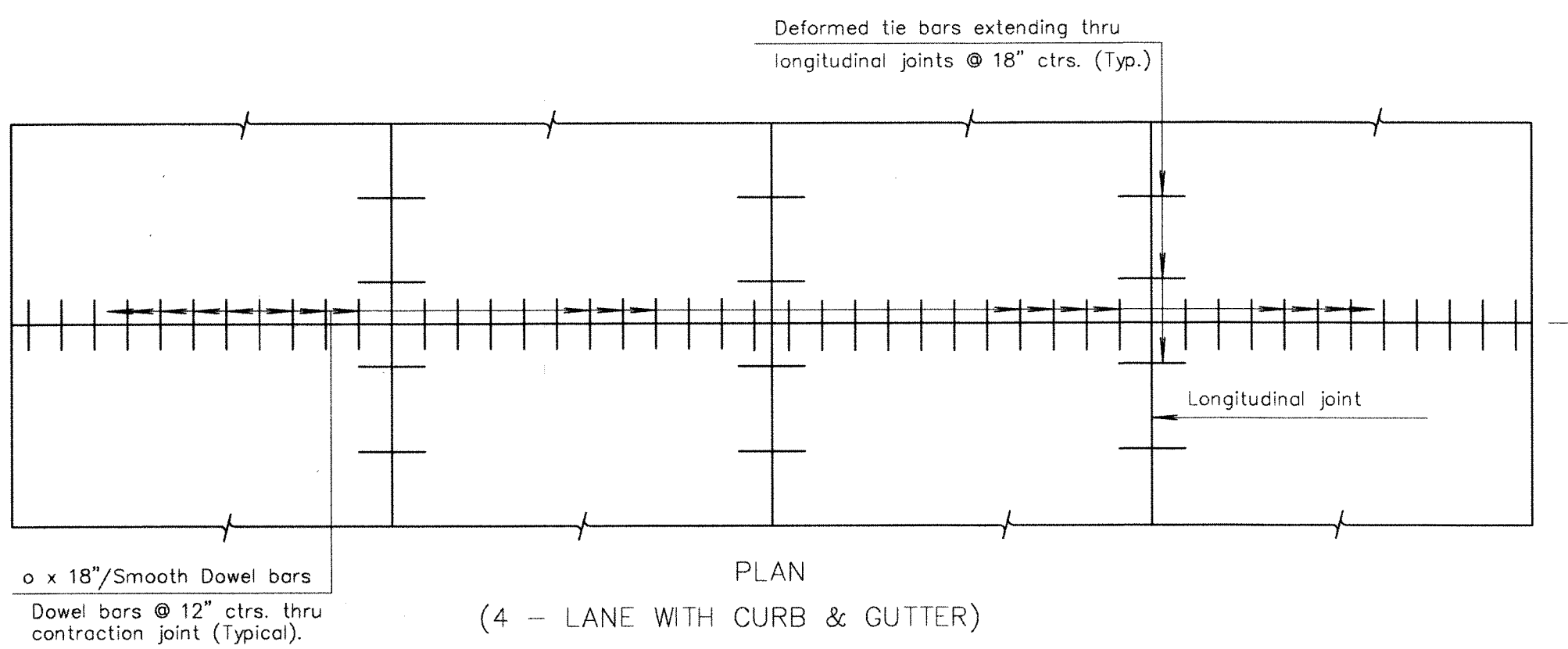


TRANSVERSE SECTION
(5 - LANE WITH CURB & GUTTER)

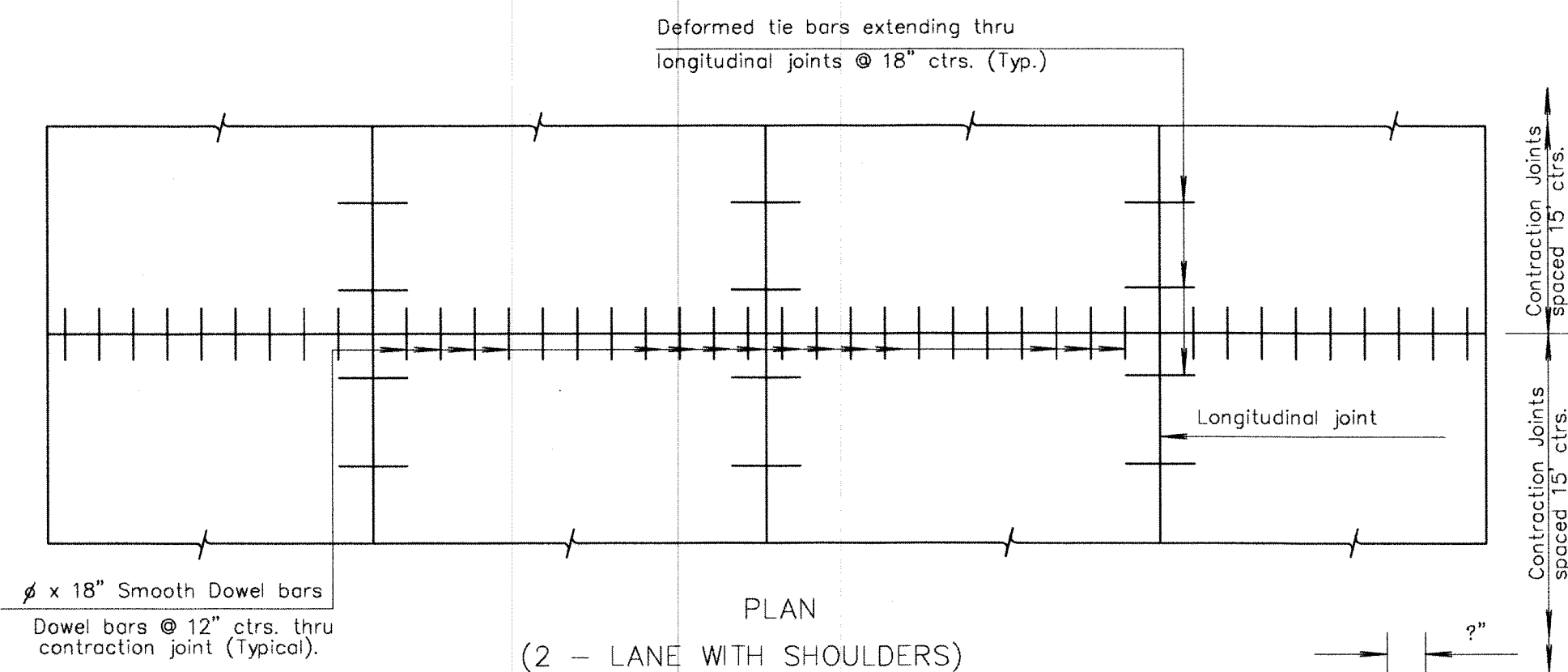
⊗ Normal cross slopes. See Typical Section or
Cross Sections for variations.

GENERAL NOTE

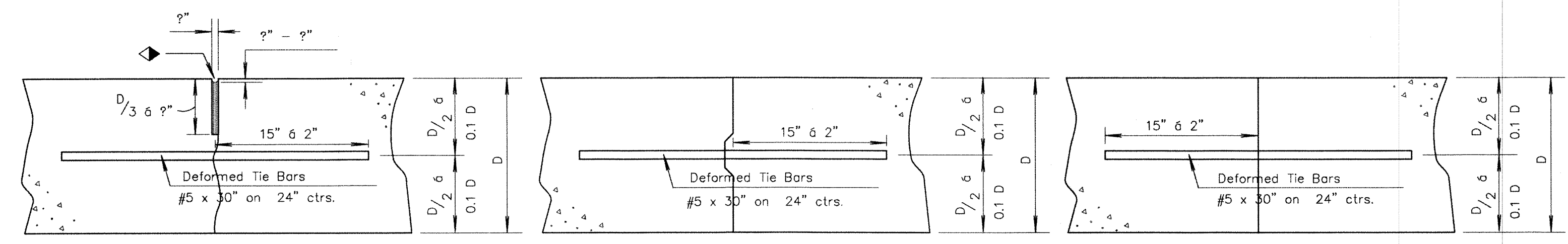
Epoxy coat all deformed tie bars. Patch any damage to the epoxy coating in accordance with the Standard Specifications. Use billet steel Grade 40 reinforcing for deformed tie bars THAT require bending, may or may not be epoxy coated. Place pressure relief joint at the end of the bridge approach pavement 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)

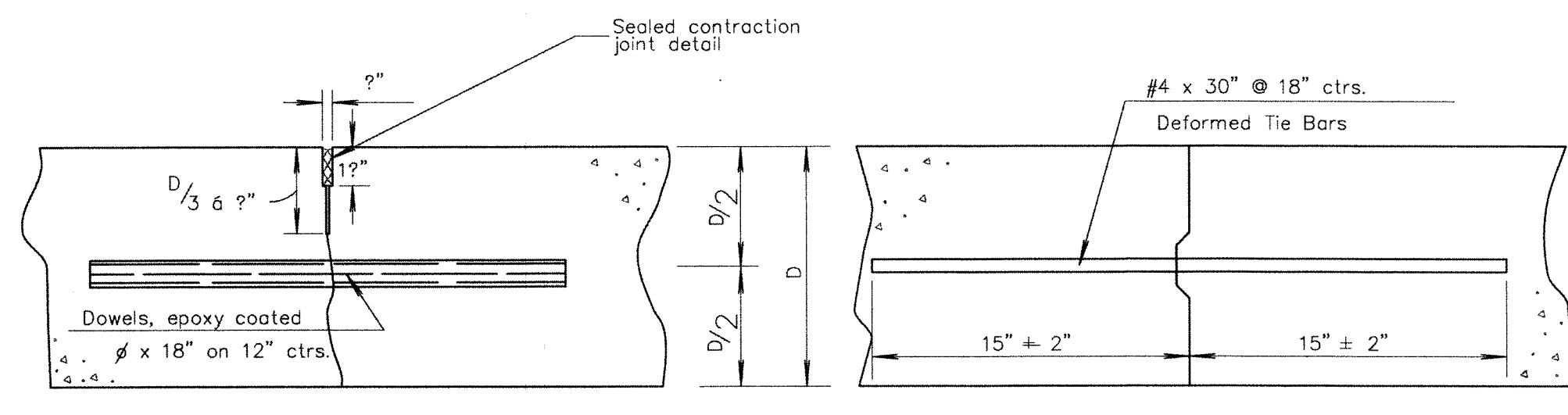


PLAN
(2 - LANE WITH SHOULDERS)



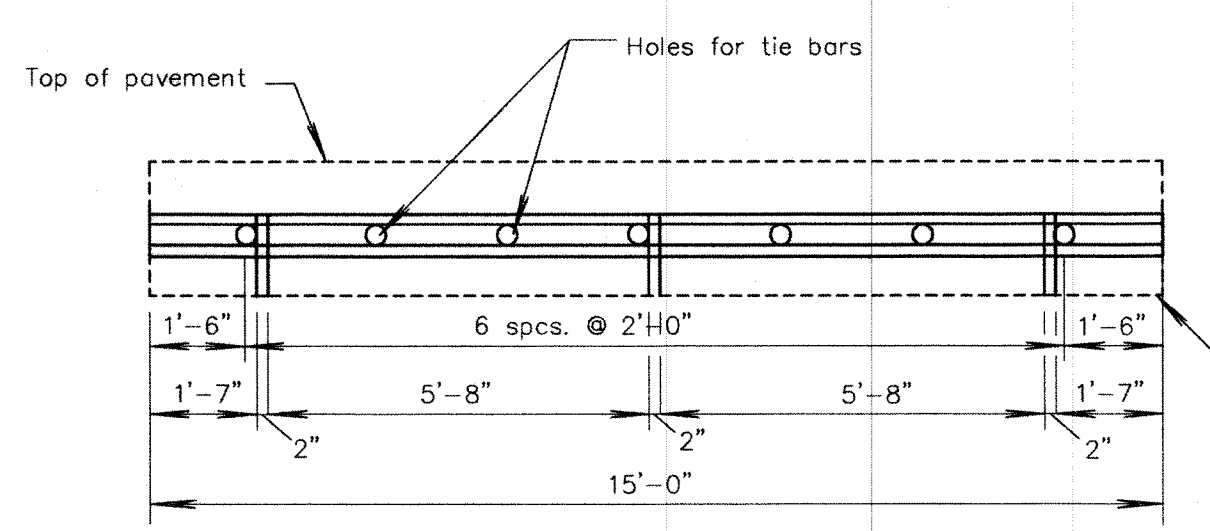
Note: For longitudinal construction joints the contractor has the option of using either the keyed or butt type. Place deformed tie bars mid-depth of the shoulder.

LONGITUDINAL JOINTS



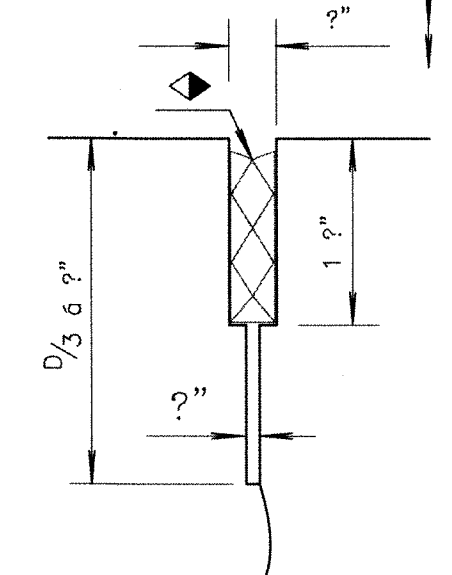
TRANSVERSE JOINTS

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 post 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.



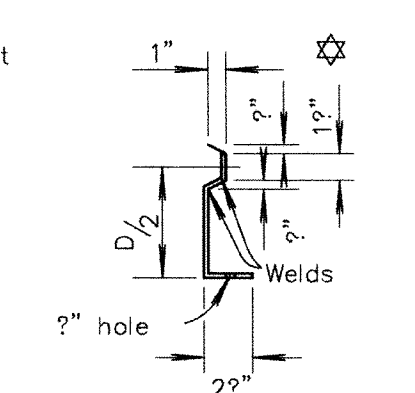
DETAIL OF SEALED CONTRACTION JOINT SAWCUT

Make an initial 2" saw cut (D/3 6" depth); the second 2" saw cut is a separate operation done after concrete has gained sufficient strength to avoid spalling as determined by the Engineer.

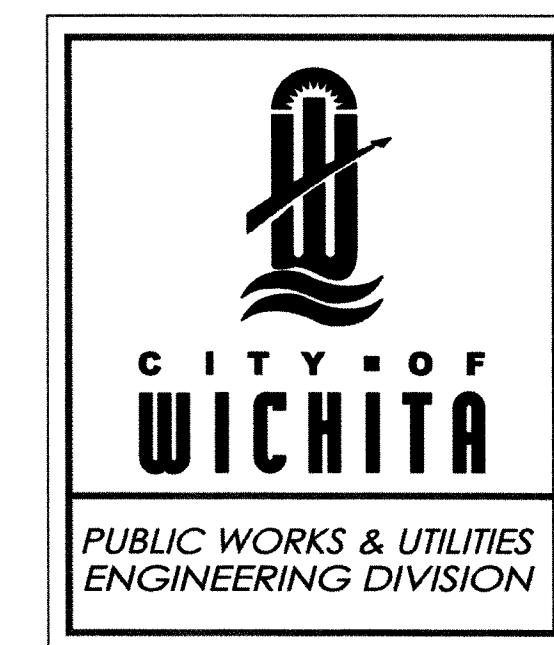
| DOWEL SIZE | |
|------------|----------|
| D (in.) | Diameter |
| 6 < D < 9 | 1" |
| 9 ≤ D < 11 | 1 1/2" |
| D ≥ 11 | 2" |

PAVEMENT DEPTH

D = _



SECTION OF RECESSED FORM LEG



REVISION DATE: DEC. 2014

**CONCRETE PAVEMENT
DOWEL JOINTED
NON-REINFORCED**

CITY ENGINEER
GARY JANZEN, P.E.

| | | |
|----------------|------------|------|
| PROJECT NUMBER | OCA NUMBER | DATE |
|----------------|------------|------|

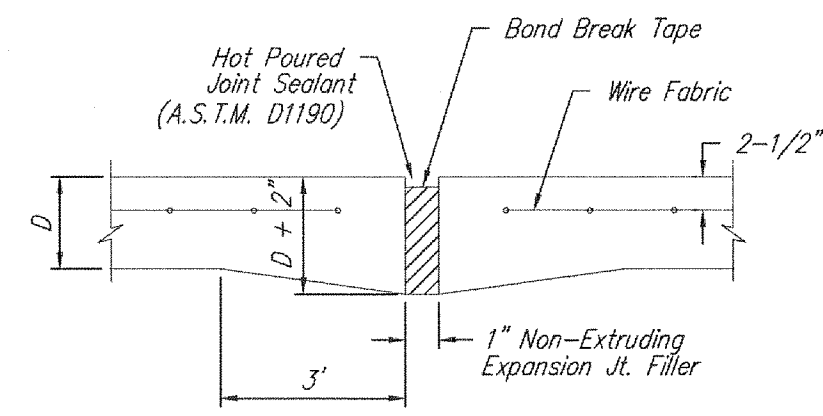
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

**Renaissance
Infrastructure
Consulting**

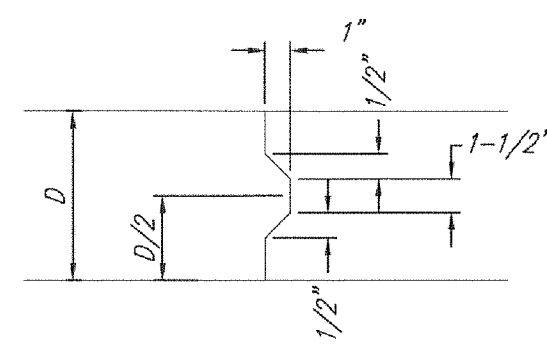
5015 NW CANAL STREET, SUITE 100
RIVERSIDE MO, 64150
816.800.0950
WWW.RIC-CONSULT.COM

10/7/2015 Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DCN\Sheets\15-0172 Roadway\15-0172 Roadway Details-1.dgn

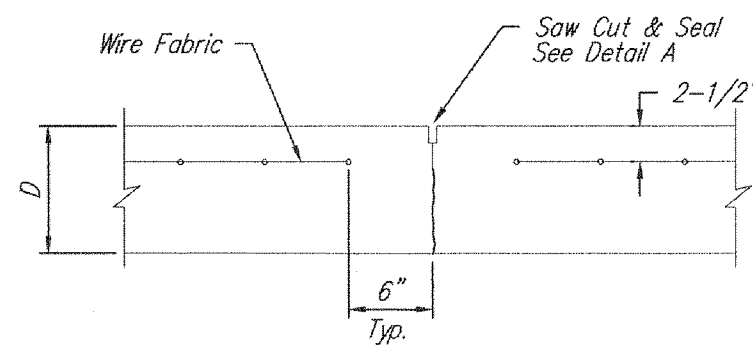


EXPANSION JOINT

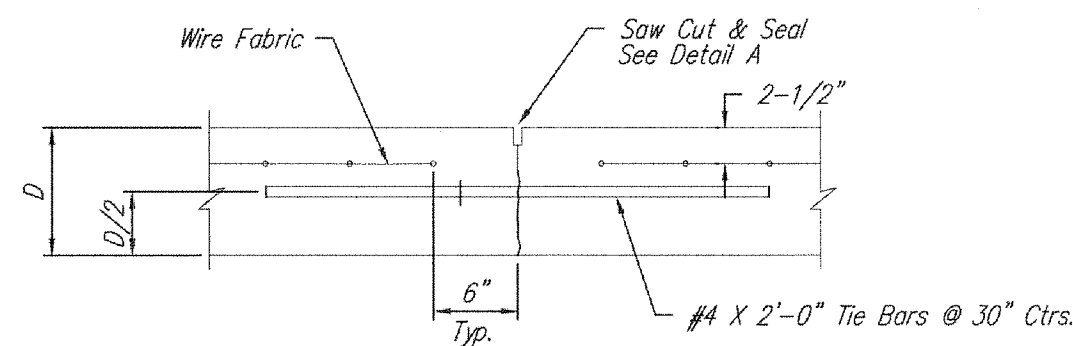
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



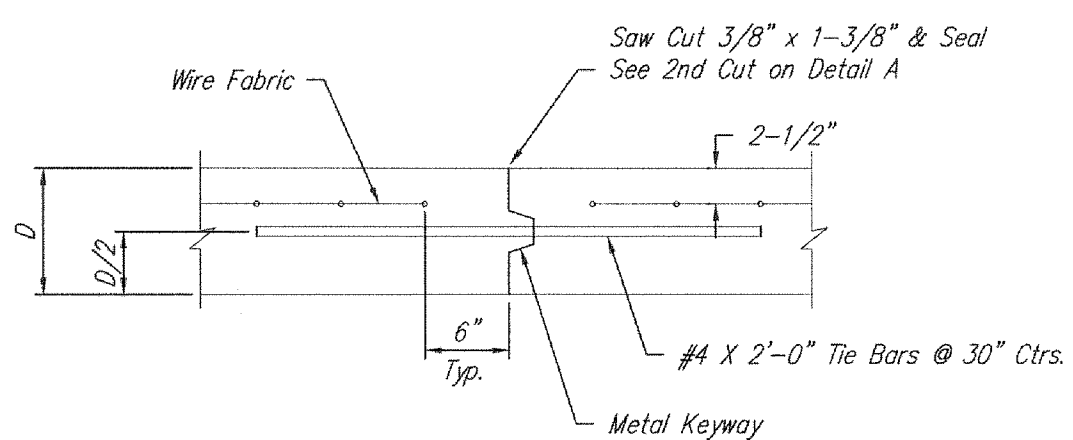
KEYWAY DETAIL



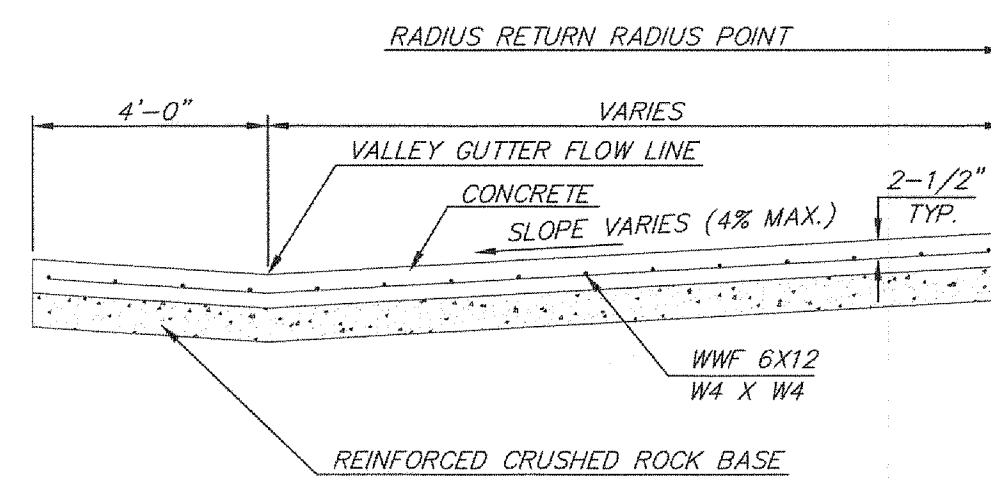
CONTRACTION JOINT DETAIL (C.J.)



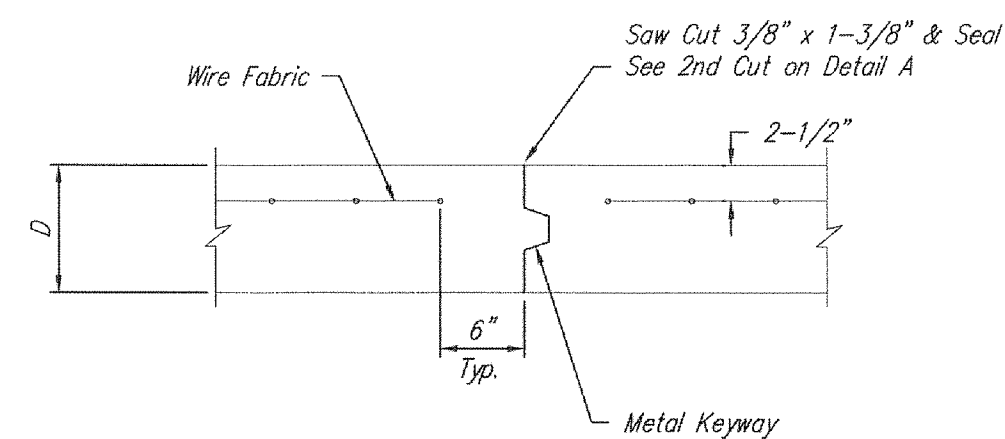
LONGITUDINAL JOINT DETAIL (L.J.)



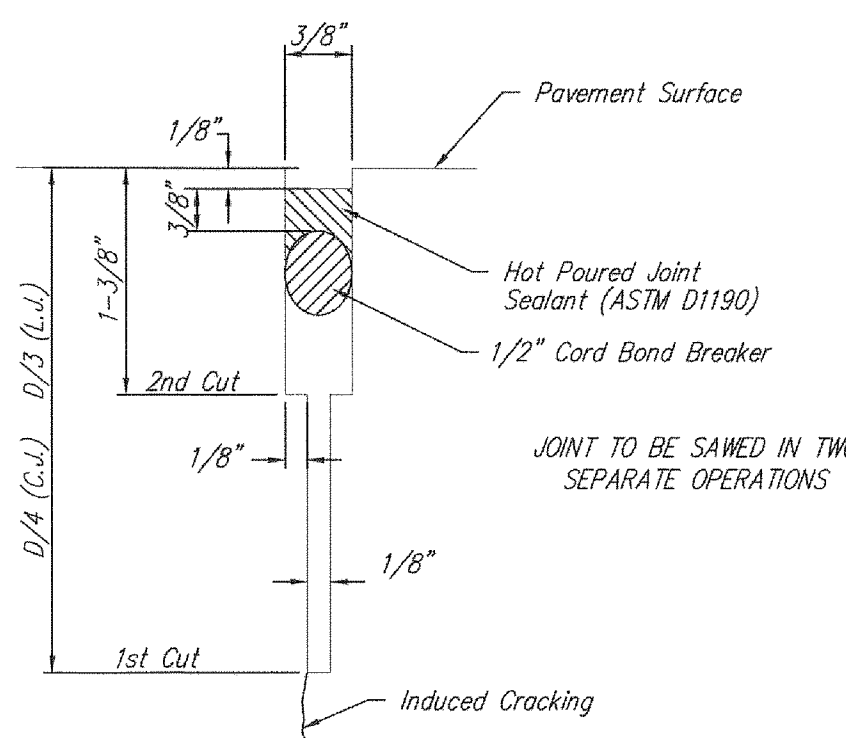
OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)



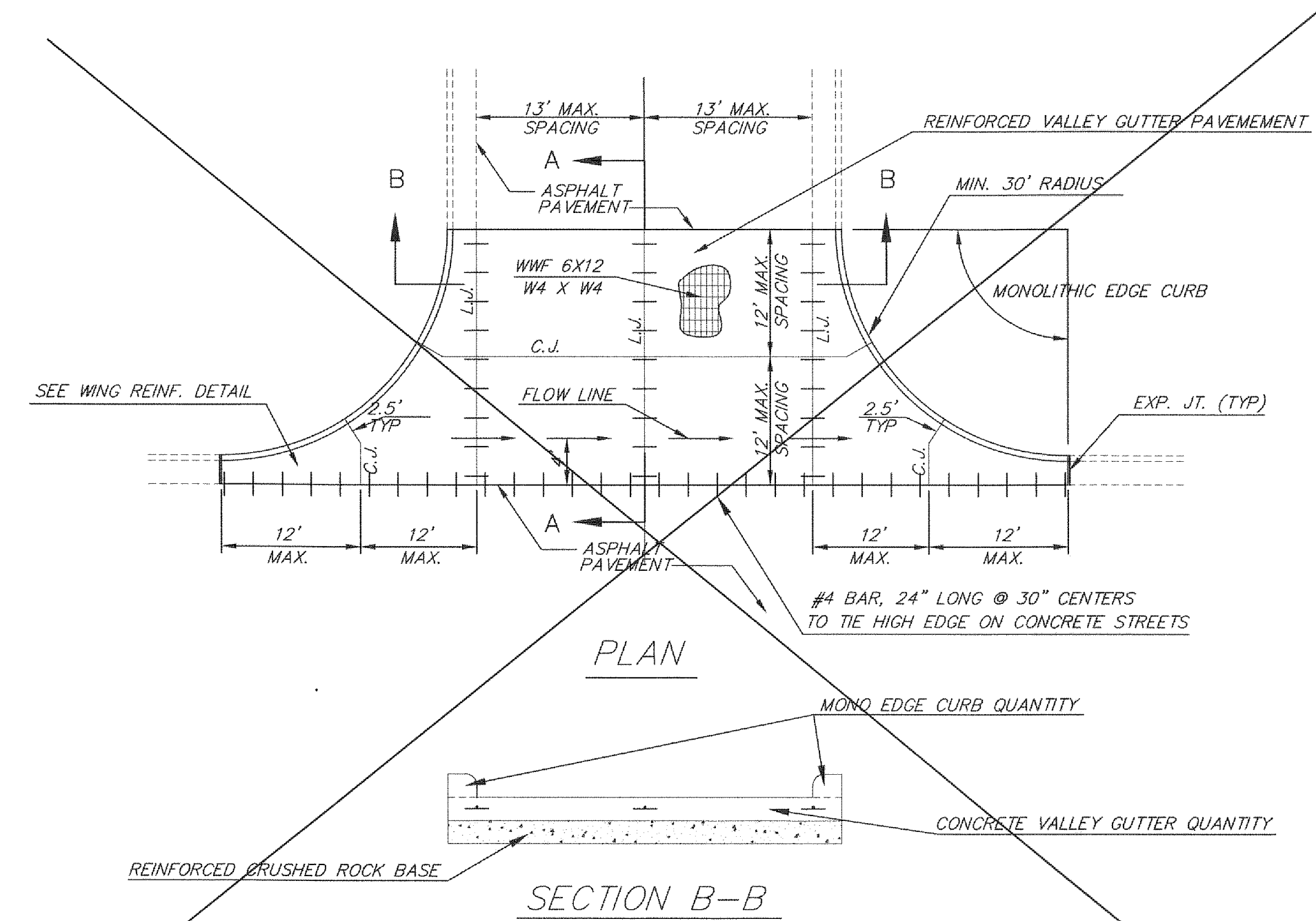
SECTION A-A



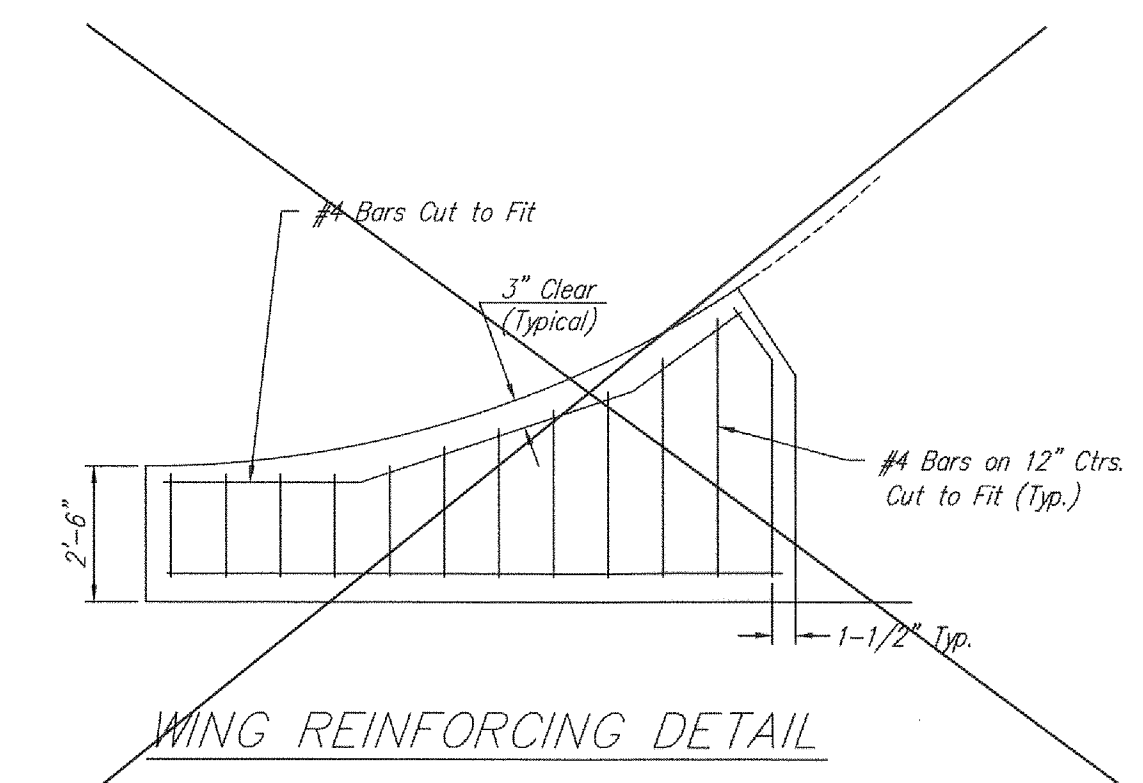
OPTIONAL CONTRACTION JOINT



SAW JOINT DETAIL (DETAIL A)



REINFORCED VALLEY GUTTER DETAIL



WING REINFORCING DETAIL



VALLEY GUTTER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.
 PROJECT NUMBER OCA NUMBER DATE
 CITY ENGINEER'S OFFICE
 CITY HALL - SEVENTH FLOOR
 455 NORTH MAIN STREET
 WICHITA, KANSAS 67202-1620
 (316) 268-4501

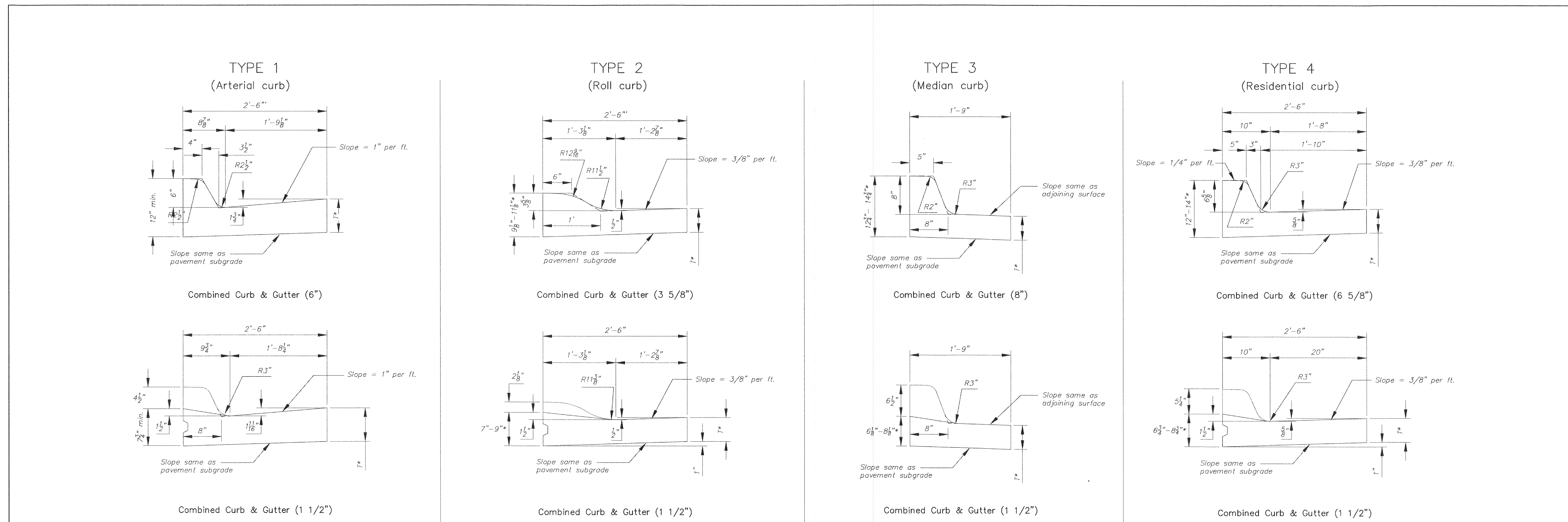
REVISED: DEC 14

PV-109

10/7/2015 Z:\RIC Design\2015\15-0172 Greenwch Court Extension\DN\Sheets\15-0172 Roadway\15-0172 Roadway Details-3.dgn

| NO. | BY | DATE | REVISION |
|-----|----|----------|--------------------|
| 1 | TC | 8/6/2015 | ORIGINAL SUBMITTAL |

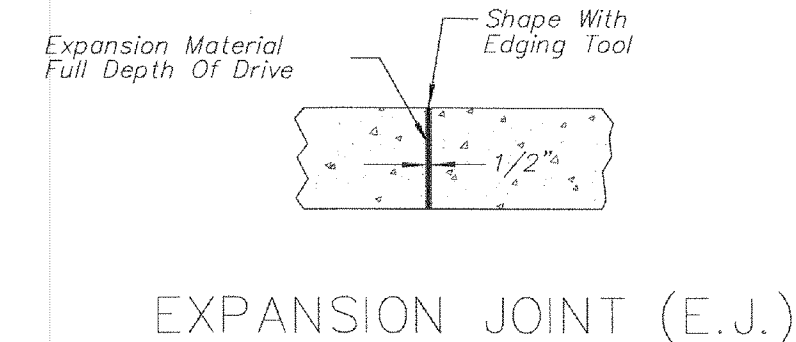
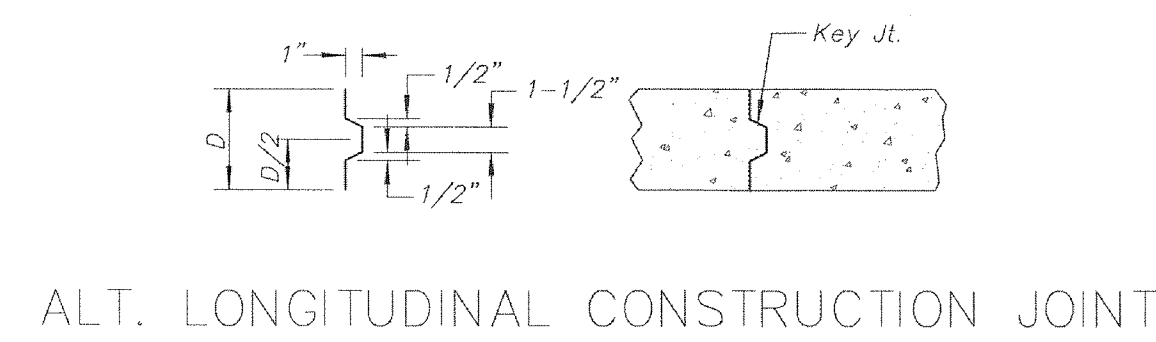
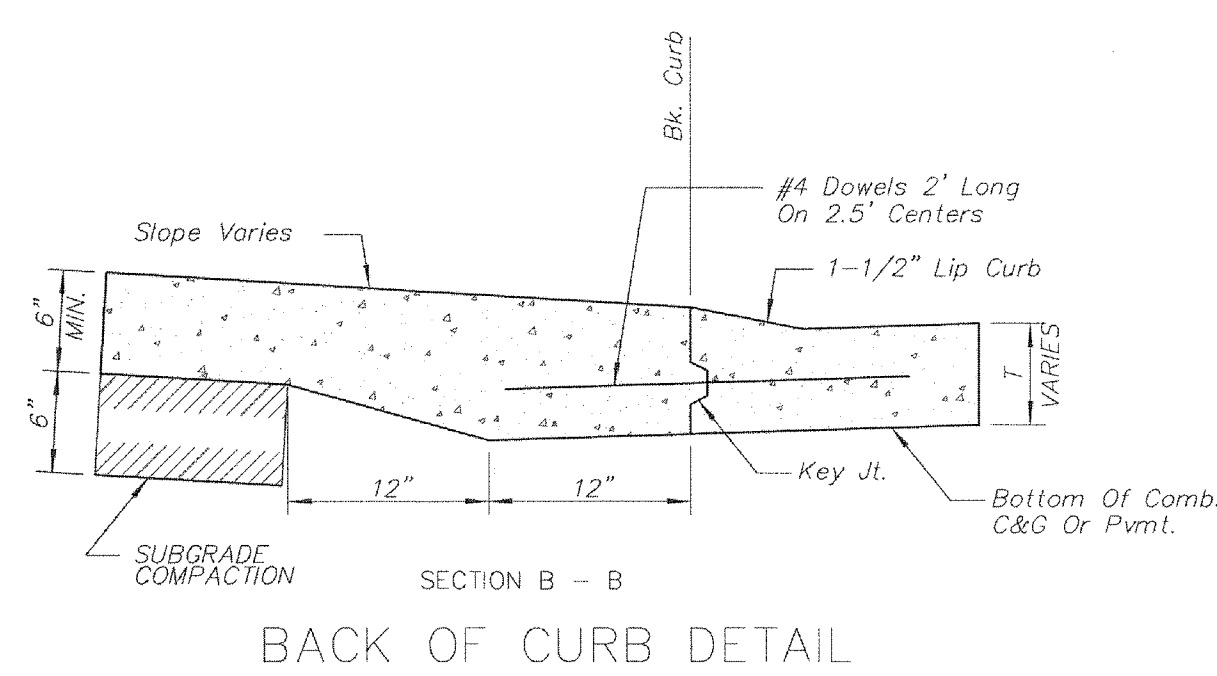
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 RIVERSIDE MO, 64150
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T* = Thickness of curb to adjust with pavement thickness

GENERAL NOTES

- Expansion (isolation) joints shall be constructed a maximum of 300' apart and at all PIs, PCs, cul-de-sac quadrants, and ends of returns.
- Contraction joints shall be constructed a minimum of 12' apart.
- Joint sealer shall be required at all joints on arterial and industrial streets and at intersections on residential streets.



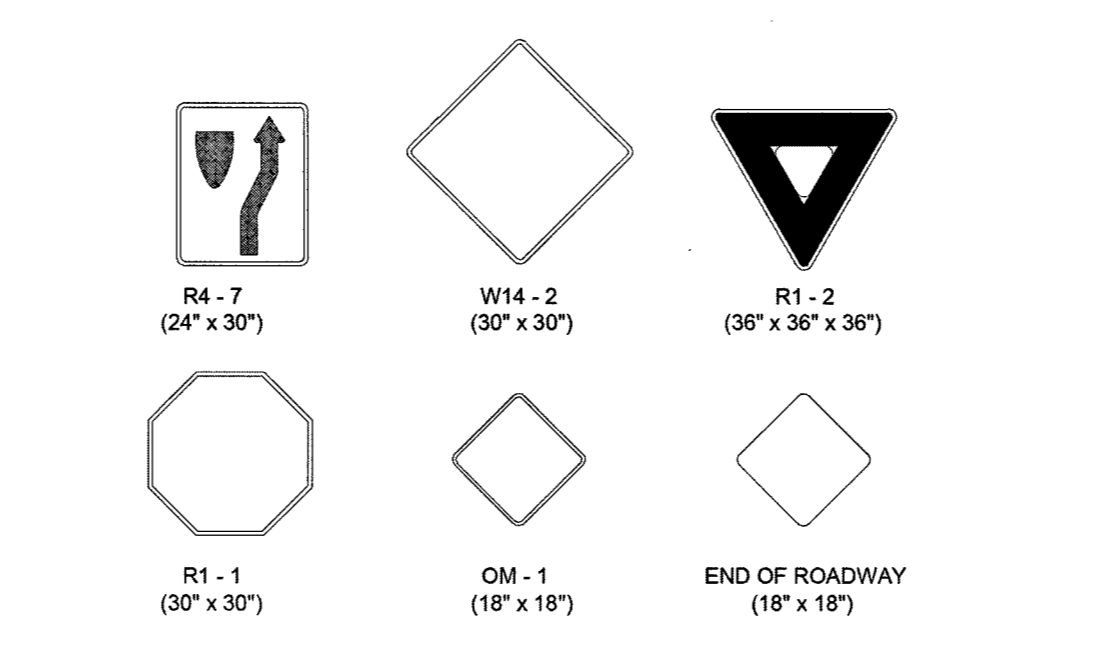
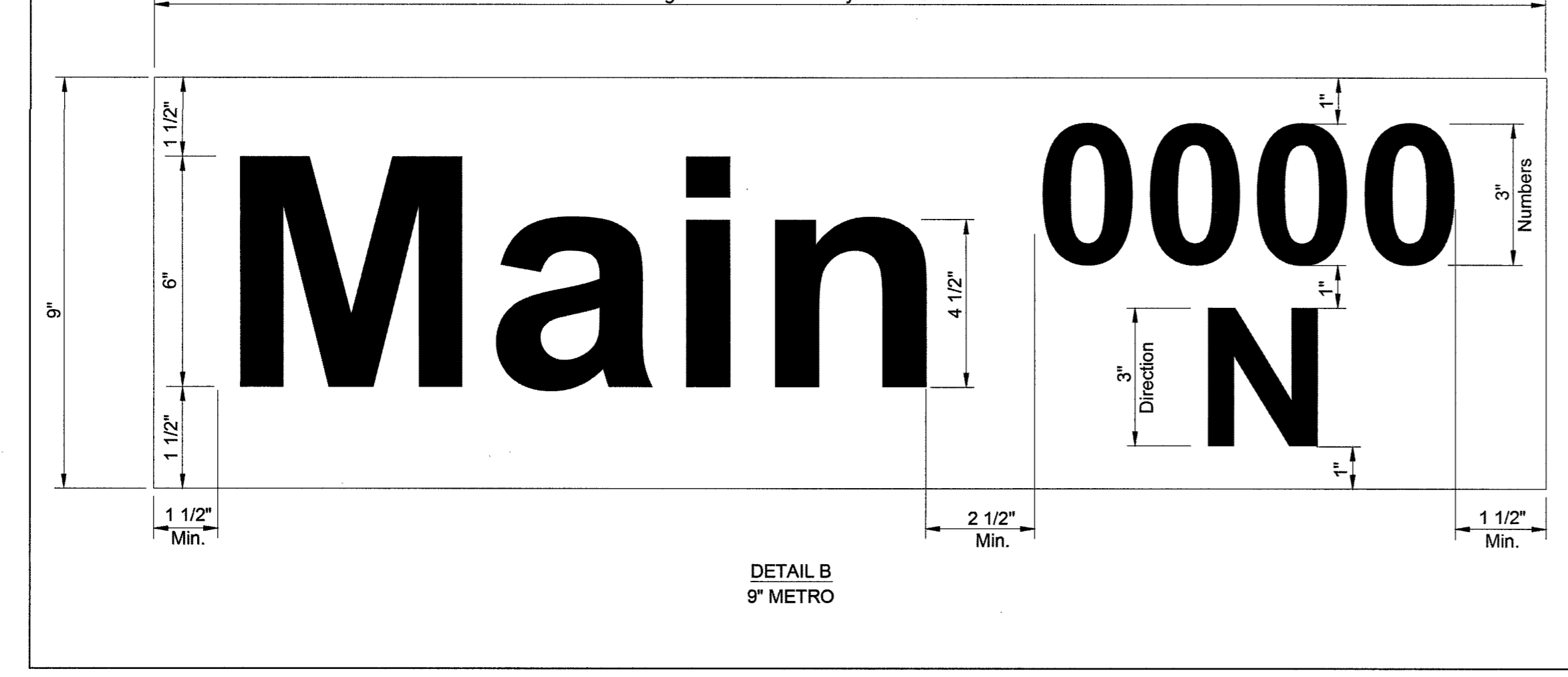
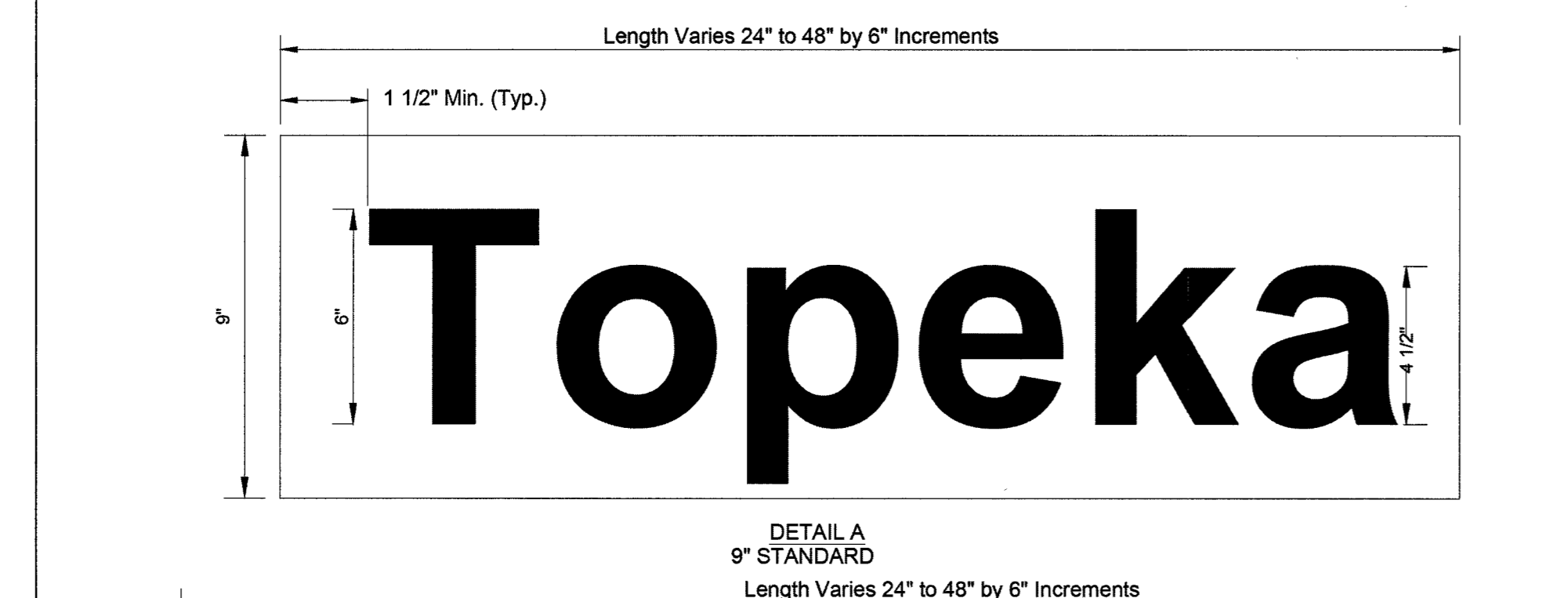
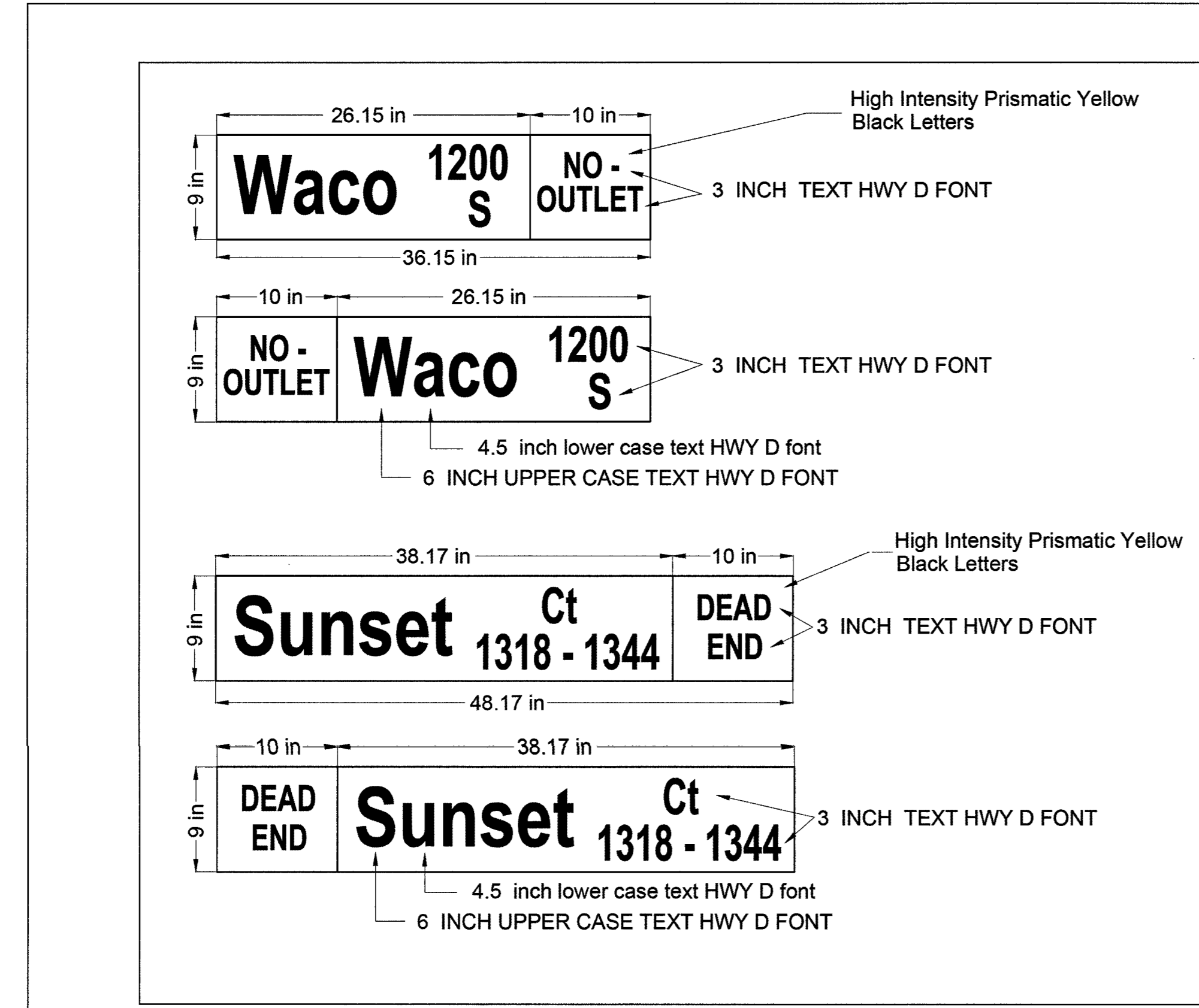
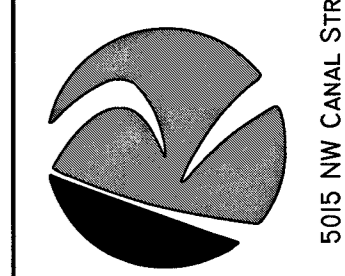
| | | | |
|---|--|------------|-----------------|
| <p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p> | CURB & GUTTER DETAILS | | |
| | CITY ENGINEER GARY JANZEN, P.E. | | |
| | PROJECT NUMBER | OCA NUMBER | DATE 12/2010 |
| | CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | SHEET |

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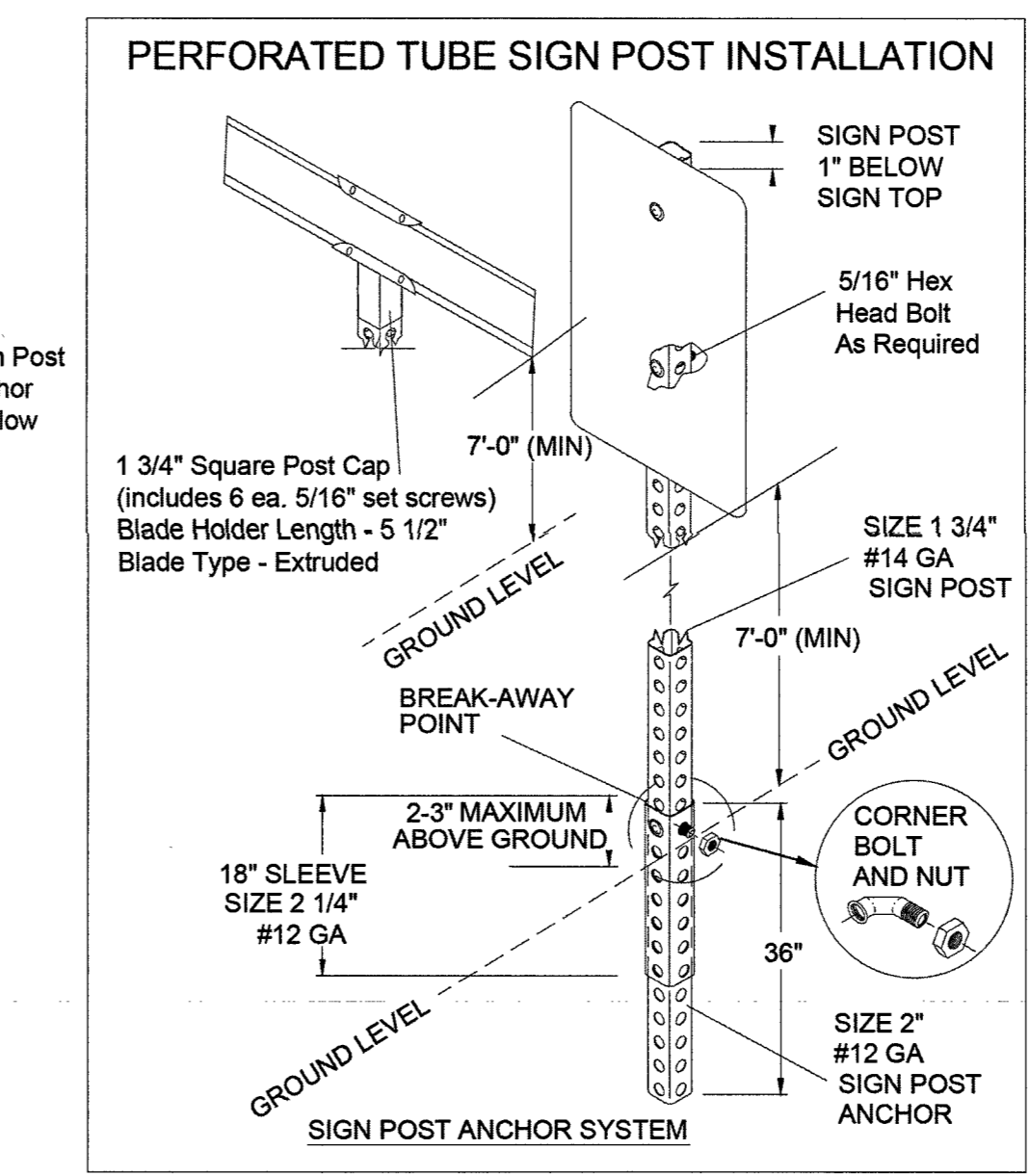
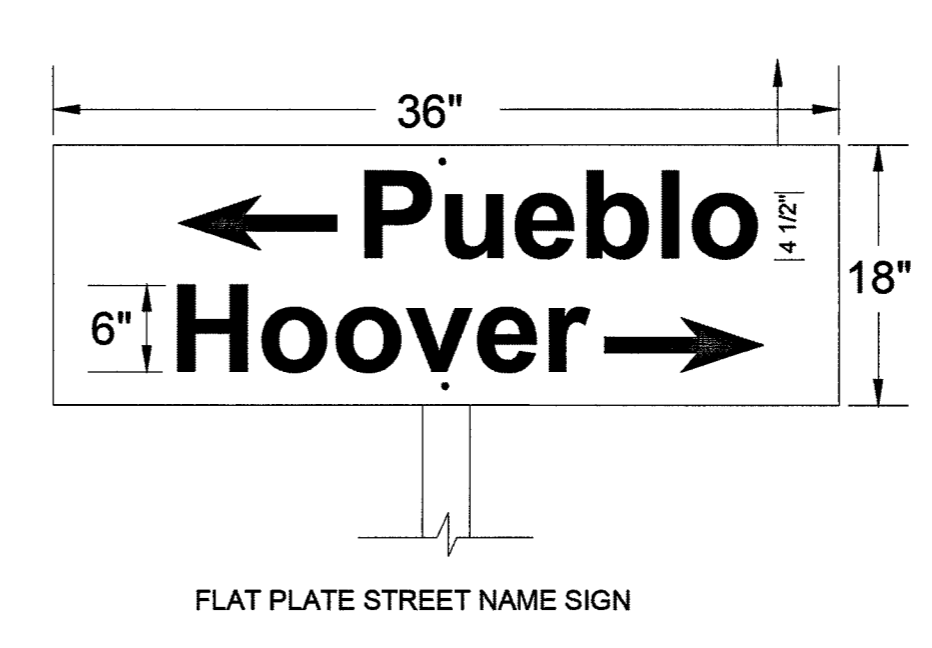
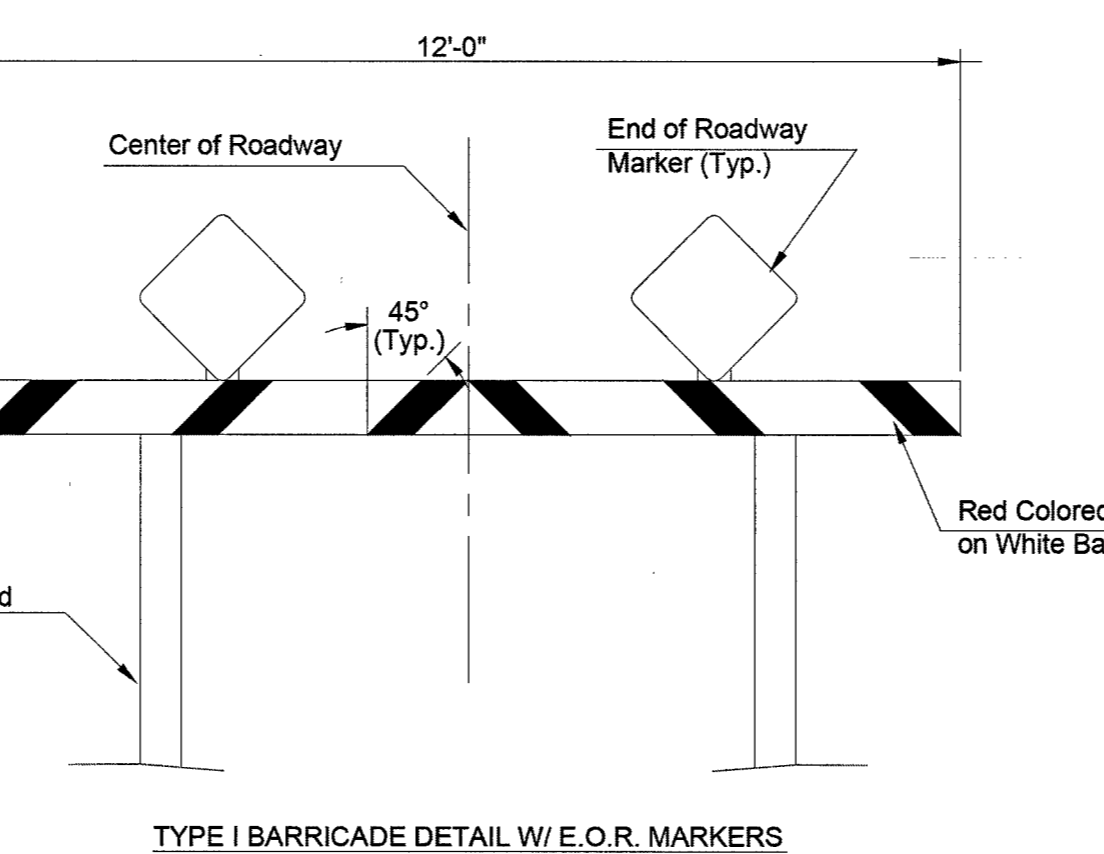
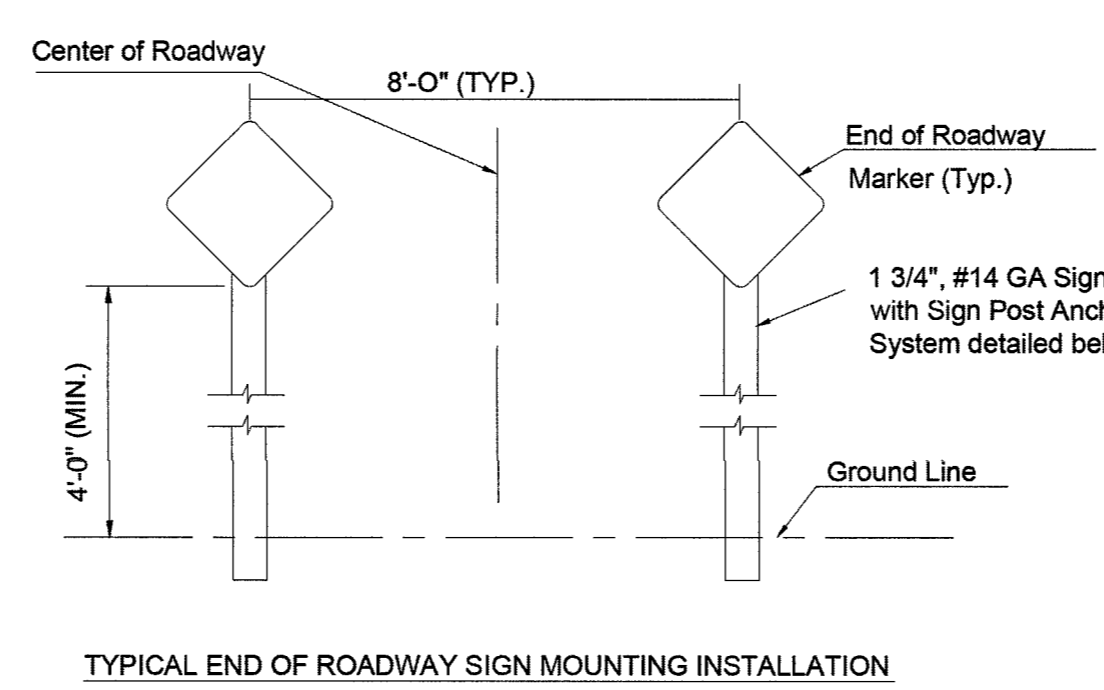
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| | | | |
|-------------------------|------------|------|------------|
| REVISE PRIVATE ENTRANCE | 10/19/2015 | CT | 10/19/2015 |
| ORIGINAL SUBMITTAL | 8/31/2015 | MAC | 8/31/2015 |
| REVISION | | NO. | BY |
| | | DATE | |

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5015 NW CANAL STREET, SUITE 100
RIVERSIDE, MO, 64150
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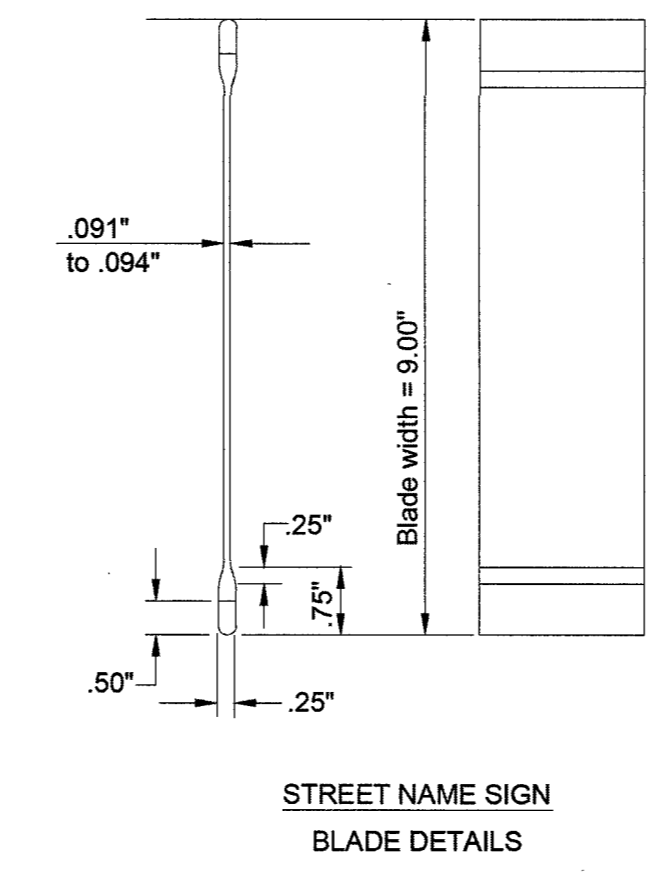


* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.



| STATION | OFFSET | SIGN | QUANTITY* |
|----------|------------|-------------------|-----------|
| 26+00.00 | 41.00' RT | W2-6 | 1 |
| 26+77.81 | 41.00' RT | R3-9a | 1 |
| 27+02.68 | 0.00' RT | OM1-1 | 1 |
| 27+81.82 | 0.00' RT | OM1-1 | 1 |
| 28+88.00 | 34.90' RT | W11-2 WITH W16-7P | 1 |
| 29+08.72 | 39.88' LT | W11-2 WITH W16-7P | 1 |
| 29+25.00 | 44.00' LT | R1-2 | 1 |
| 29+85.00 | 22.21' RT | R6-4a | 1 |
| 30+06.50 | 27.58' LT | R6-4a | 1 |
| 30+00.88 | 84.10' LT | R1-2 | 1 |
| 30+29.78 | 110.98' LT | W11-2 WITH W16-7P | 1 |
| 30+60.51 | 78.38' LT | W11-2 WITH W16-7P | 1 |
| TOTAL | | | |

| STREET NAME | NO. BLADES REQ'D | |
|-------------|------------------|--|
| | 9\"/> | |
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- NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 1990" BY THE KANSAS DEPARTMENT OF TRANSPORTATION.
- FABRICATION AND INSTALLATION OF ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD.
 - POST ANCHORS: POSTS SHALL BE ANCHORED WITH A YIELDING BASE POST SUPPORT AS DETAILED.
 - 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.
 - 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.
 - POSTS FOR END OF ROADWAY SIGN TO BE 8' LONG AND INSTALLED A MINIMUM OF 4' FROM ROADWAY TO BOTTOM OF SIGN.
 - 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.
 - 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.
 - MOUNTING BRACKETS FOR SIGNS: DIE-CAST ALUMINUM BRACKETS SHALL BE ALUMINUM ALLOY 383 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.
 - FASTENERS: ALL STEEL FASTENERS FOR TRAFFIC CONTROL SIGNS SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1614 OF THE STANDARD SPECIFICATIONS.
 - REFLECTIVE SHEETING: REFLECTIVE SHEETING SHALL BE A MINIMUM OF HIGH INTENSITY PRISMATIC.
 - PROCESS INK: ALL PROCESS INK SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 2202 OF THE STANDARD SPECIFICATIONS.
 - DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 9" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND 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 DEFAUCATION DURING SHIPMENT OR STORAGE.
- 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.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

REVISED NOVEMBER 2014

SIGN DETAILS

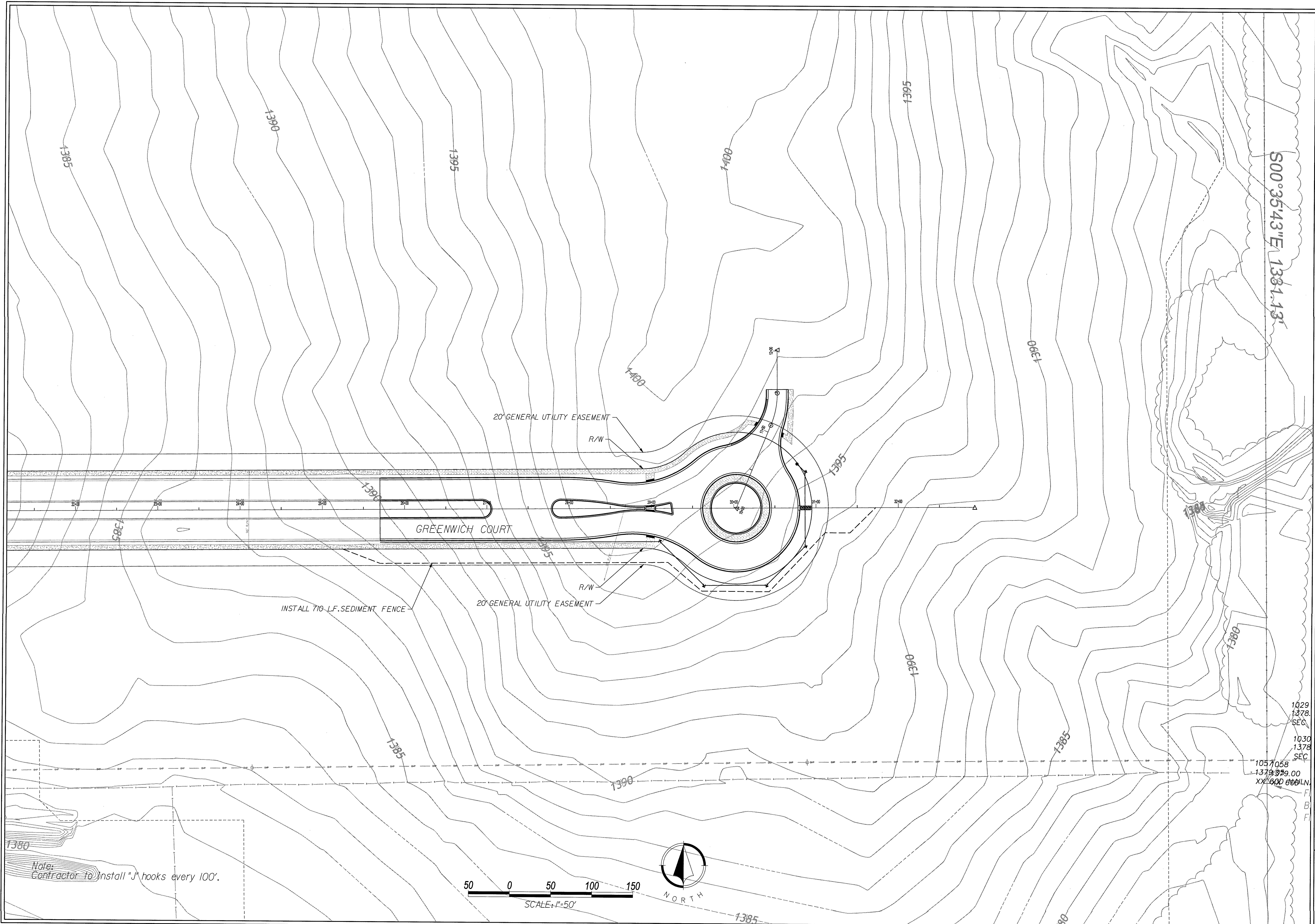
TRAFFIC ENGINEER
Brian A. Coon P.E.

PROJECT NUMBER OCA NUMBER DATE

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

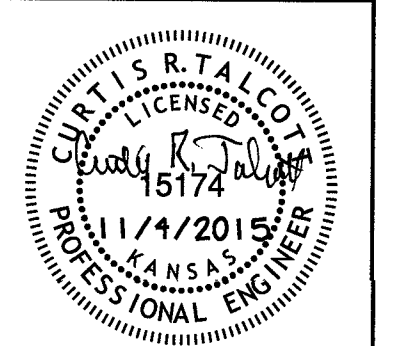
SHEET

11/14/2015
Z:\RIC Design\2015\15-0172 Greenwich Court Extension\DWG\Sheets\15-0172 Roadway\15-0172 Roadway Erosion Control.dgn



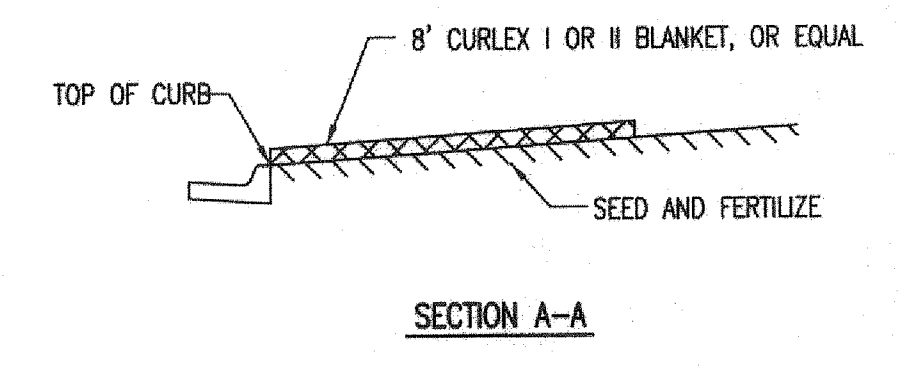
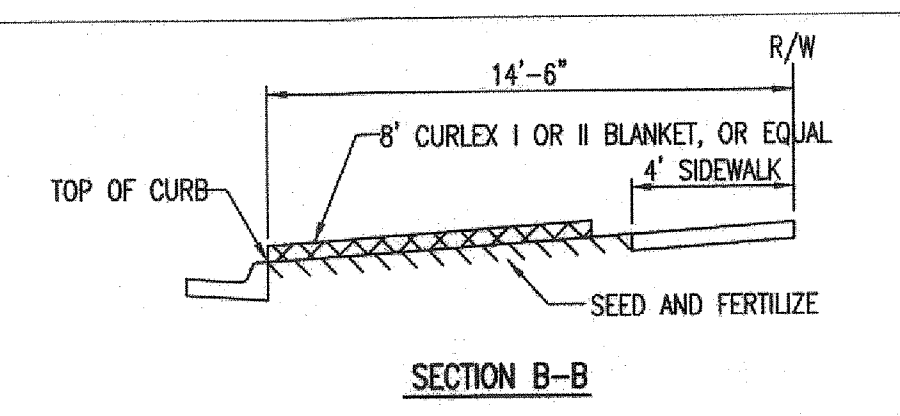
| NO. | BY | DATE | REVISION |
|-----|-----|------------|-------------------------|
| 2 | VJZ | 10/19/2015 | REVISE PRIVATE ENTRANCE |
| 1 | MJC | 08/12/2015 | ORIGINAL SUBMITTAL |

Renaissance Infrastructure Consulting
 5015 NW CANAL STREET, SUITE 100
 RIVERSIDE, MO. 64150
 816.800.0950
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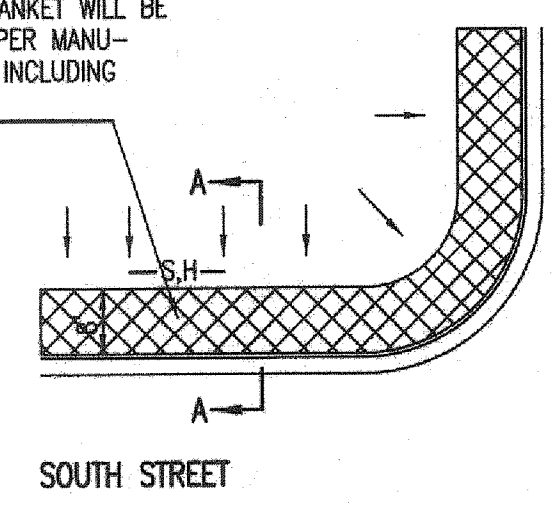


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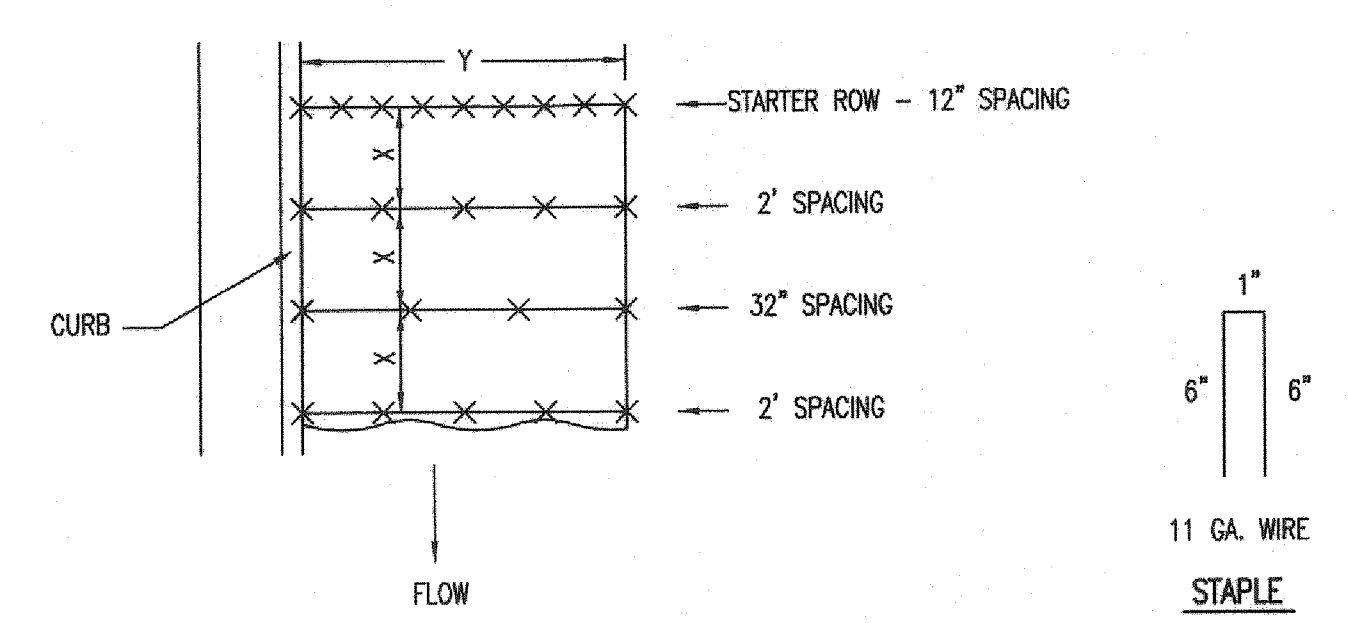
INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)

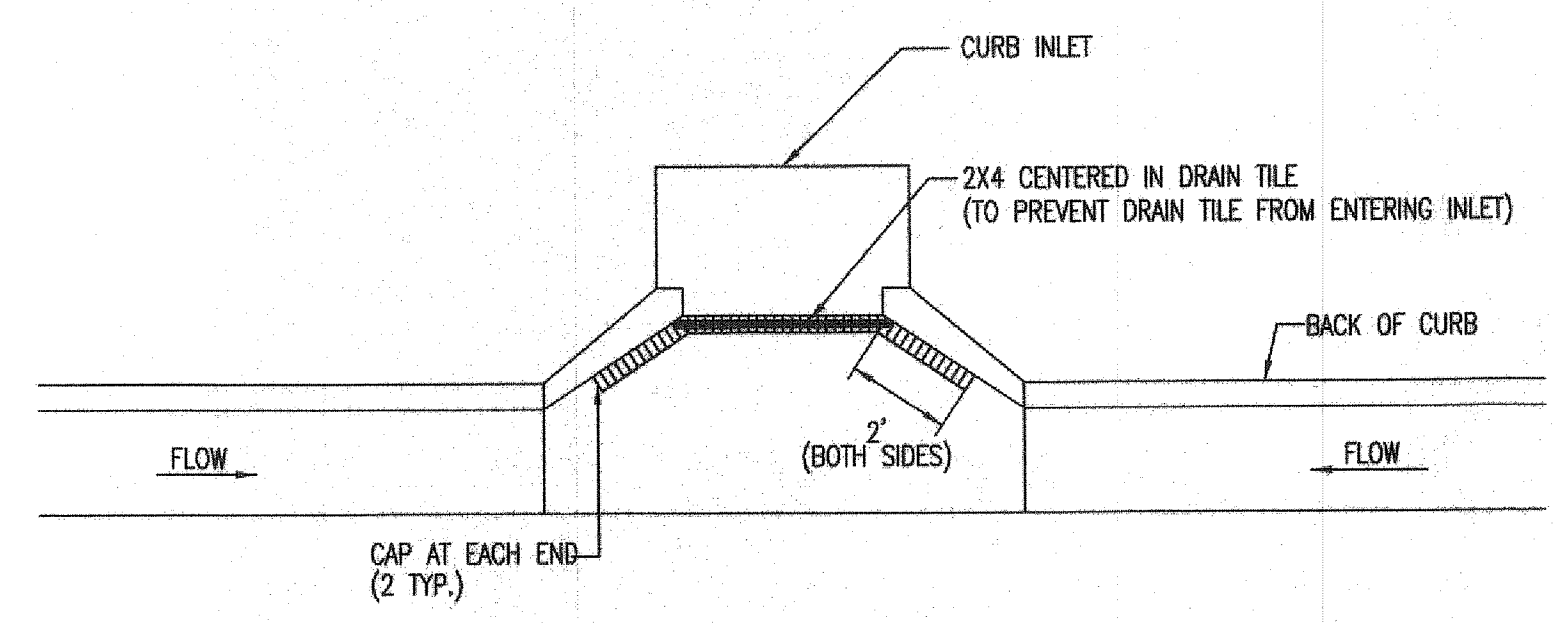
- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
 - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
 - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE 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



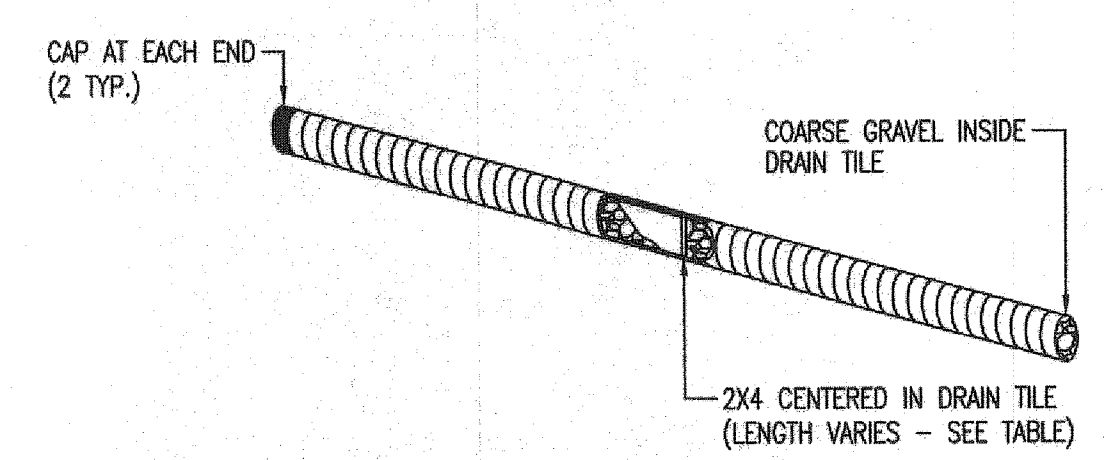
STAPLE PATTERN
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)

DETAILS FOR APPROVED EROSION CONTROL MAT

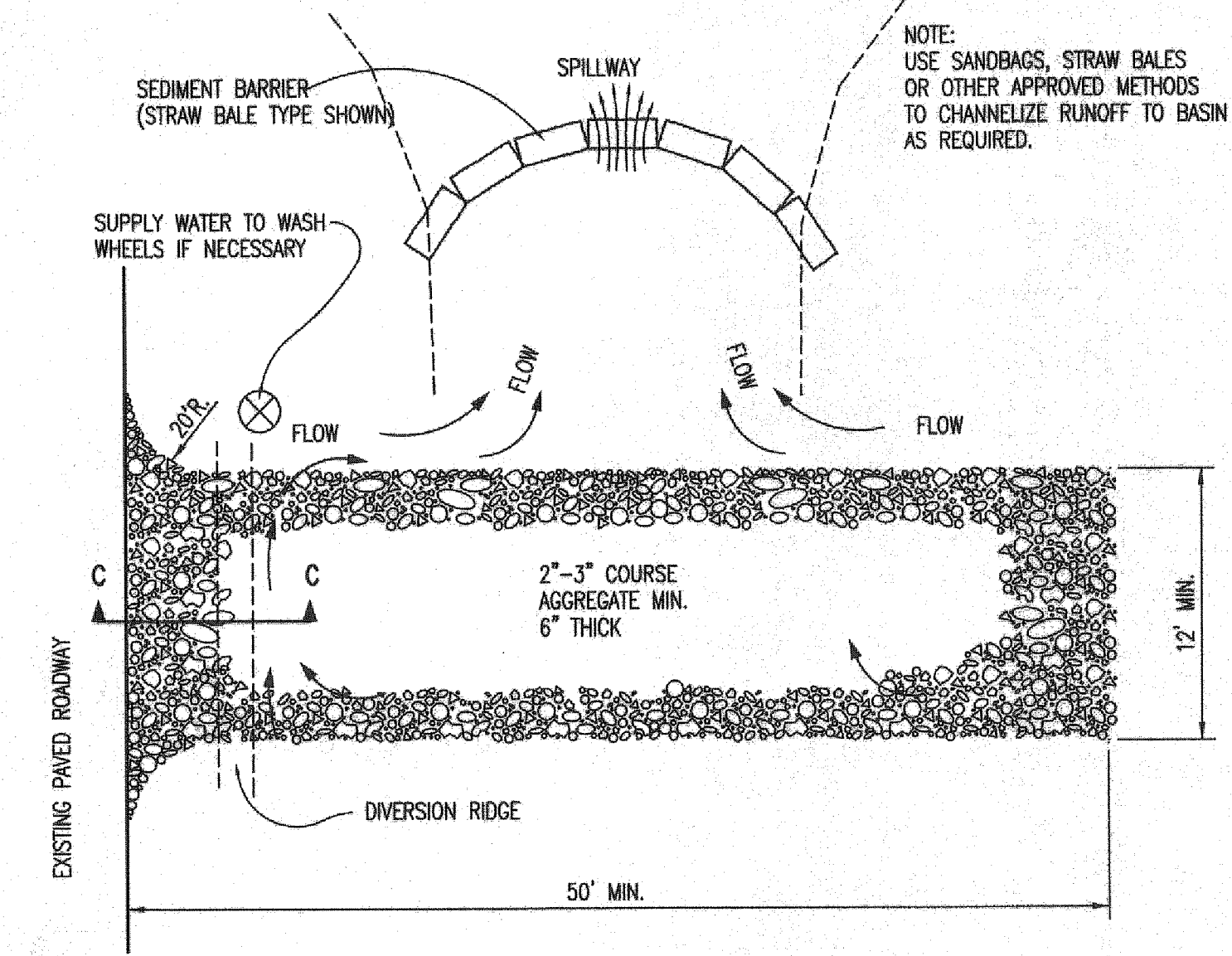
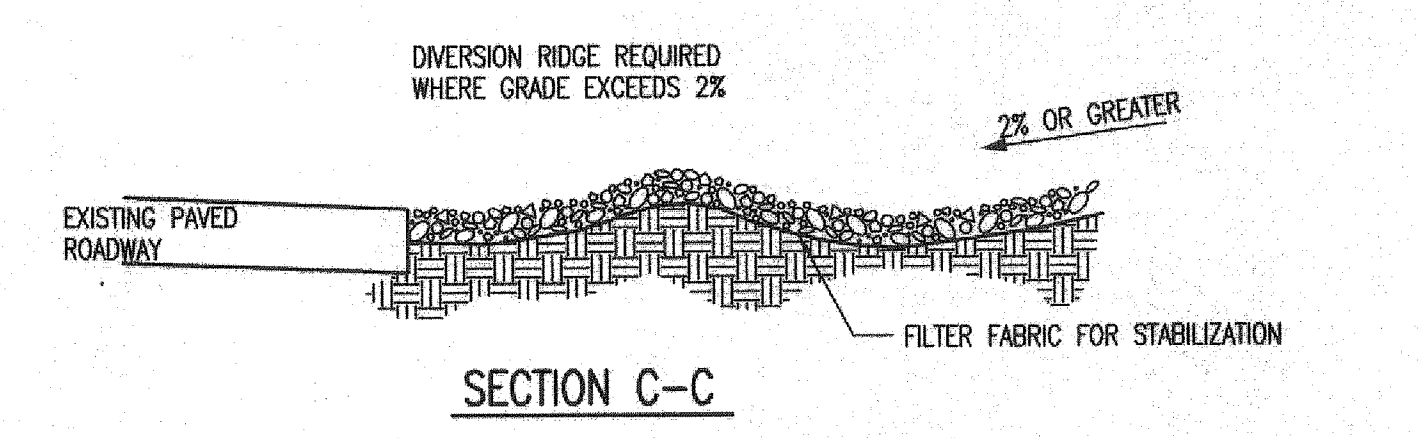


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

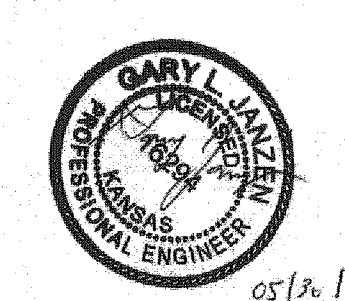
| 2X4 LENGTH | INLET TYPE | INLET OPENING |
|------------|------------|---------------|
| 5'-6" | 1-A | 5'-0" |
| 10'-6" | 1-A | 10'-0" |
| 15'-6" | 1-A | 15'-0" |



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



- GENERAL NOTES**
- 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.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 - 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.
 - 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.

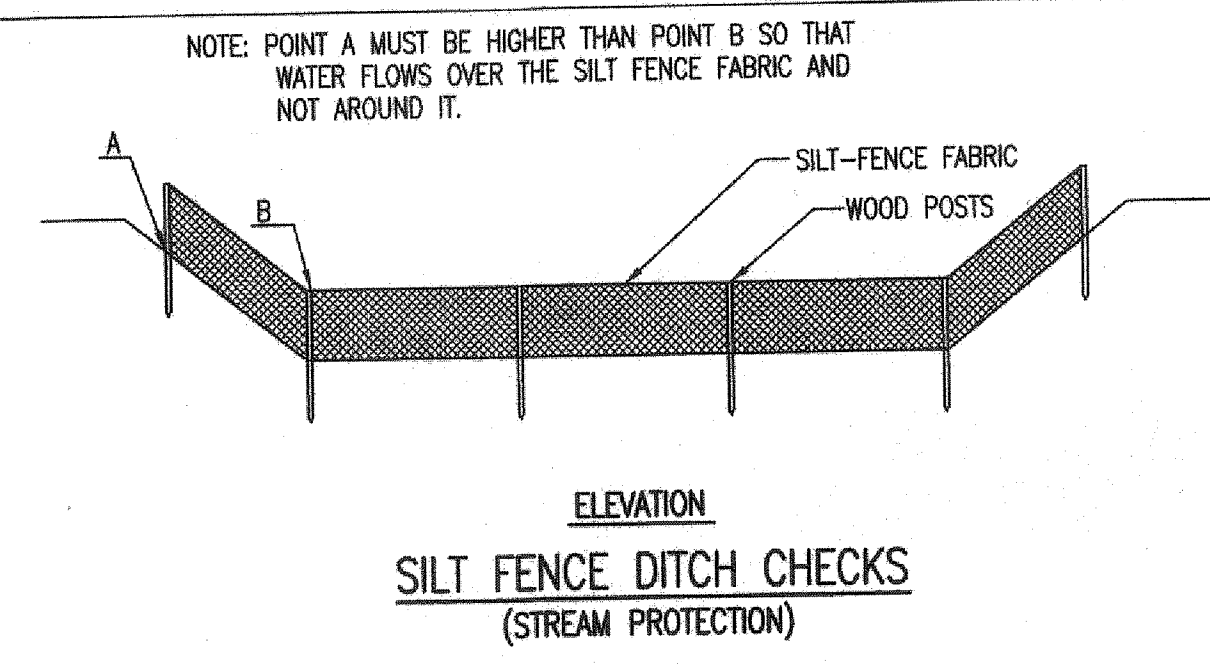


REVISION DATE: MAY 2013

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

| | | |
|--|------------|------|
| PROJECT NUMBER | OCA NUMBER | DATE |
| CITY ENGINEER'S OFFICE | SHEET | |
| CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | |



MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

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

| DITCH 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 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 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 UPSLOPE SIDE 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 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

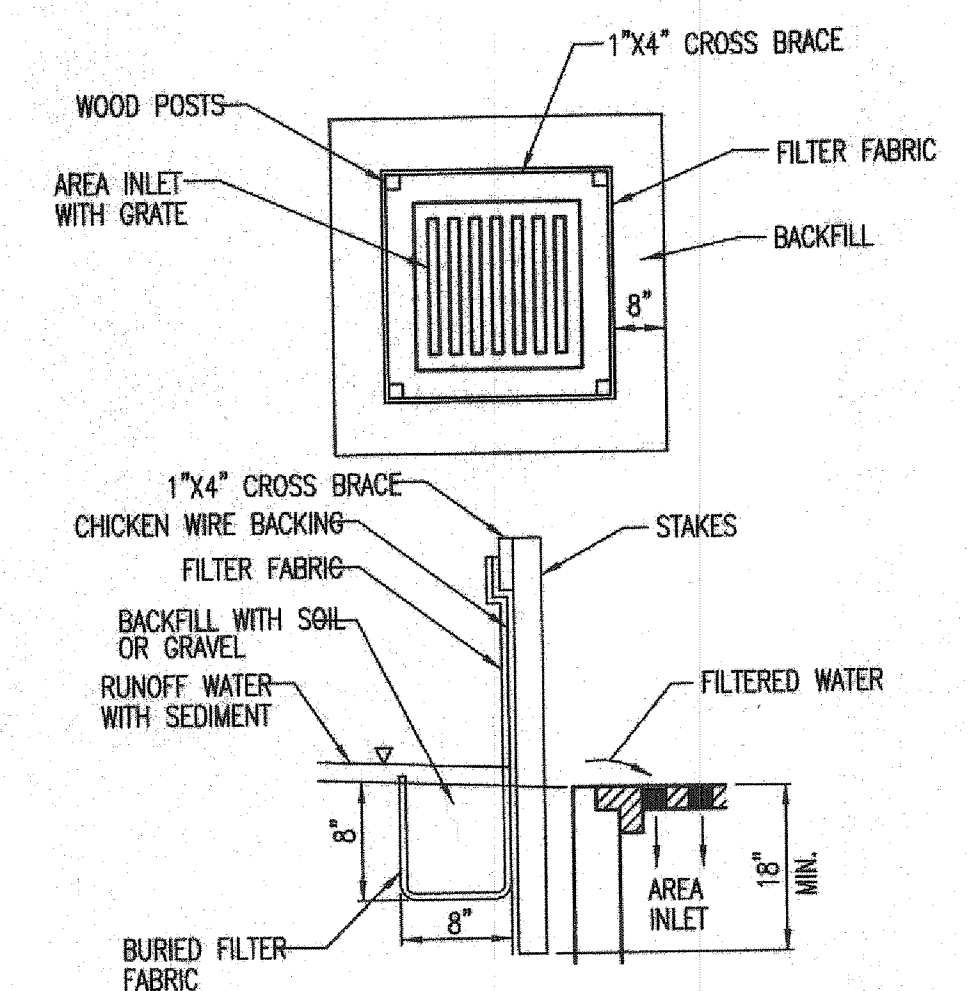
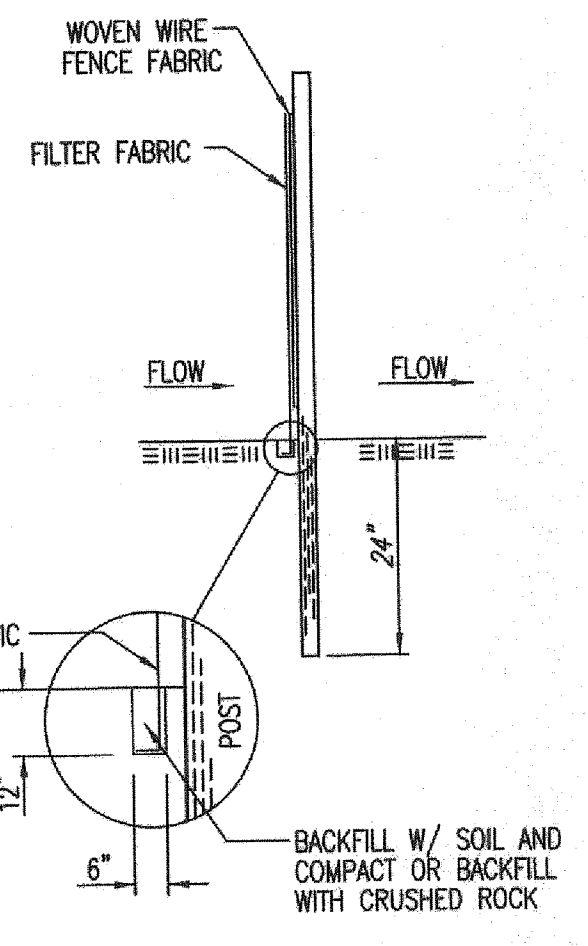
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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 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 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 PRESSURIZED 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?



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 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.

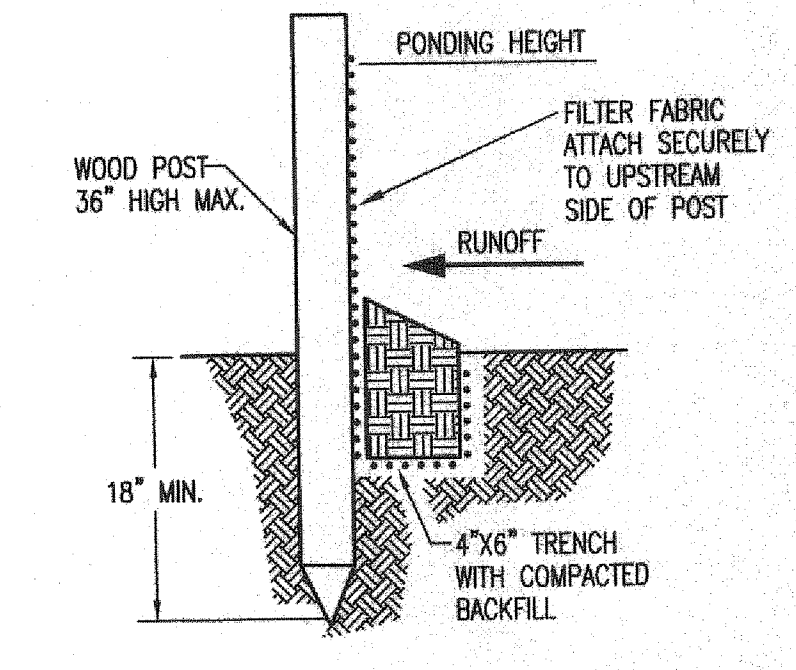
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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 BARRIERS 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 RESTRICTED 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?



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:

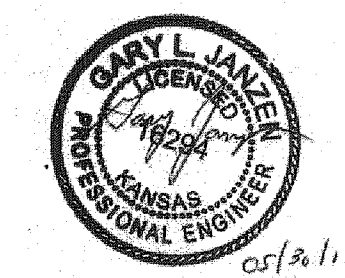
WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE 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 2015



SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER: _____ OCA NUMBER: _____ DATE: _____

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

SHEET _____

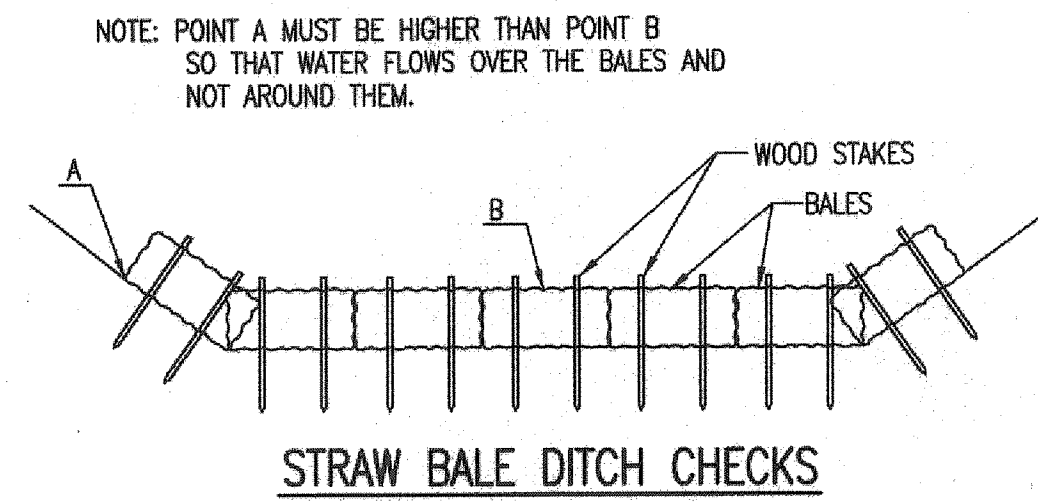
Renaissance Infrastructure Consulting

5015 NW CANAL STREET, SUITE 100
RIVERSIDE, MO, 64150

816.800.0950
WWW.RIC-CONSULT.COM

10/17/2015 2: RIC Design\2015\15-0172 Greenwch Court Extension\DWG\Sheets\15-0172_Roadway\15-0172_Road Erosion Details-2.dgn

SW-502



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

| DITCH CHECK SPACING DITCH GRADE (%) | CHECK SPACING (FEET) |
|--|-------------------------|
| 0.5 | 200 |
| 1.0 | 200 |
| 2.0 | 100 |
| 3.0 | 85 |
| 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".

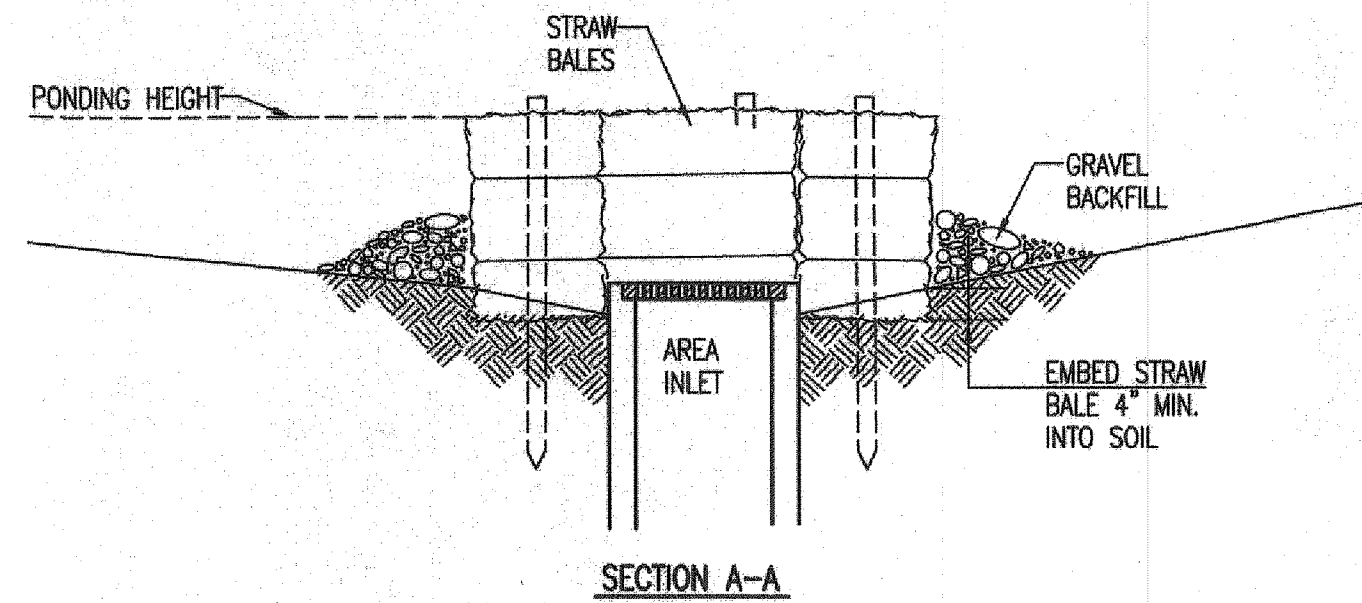
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

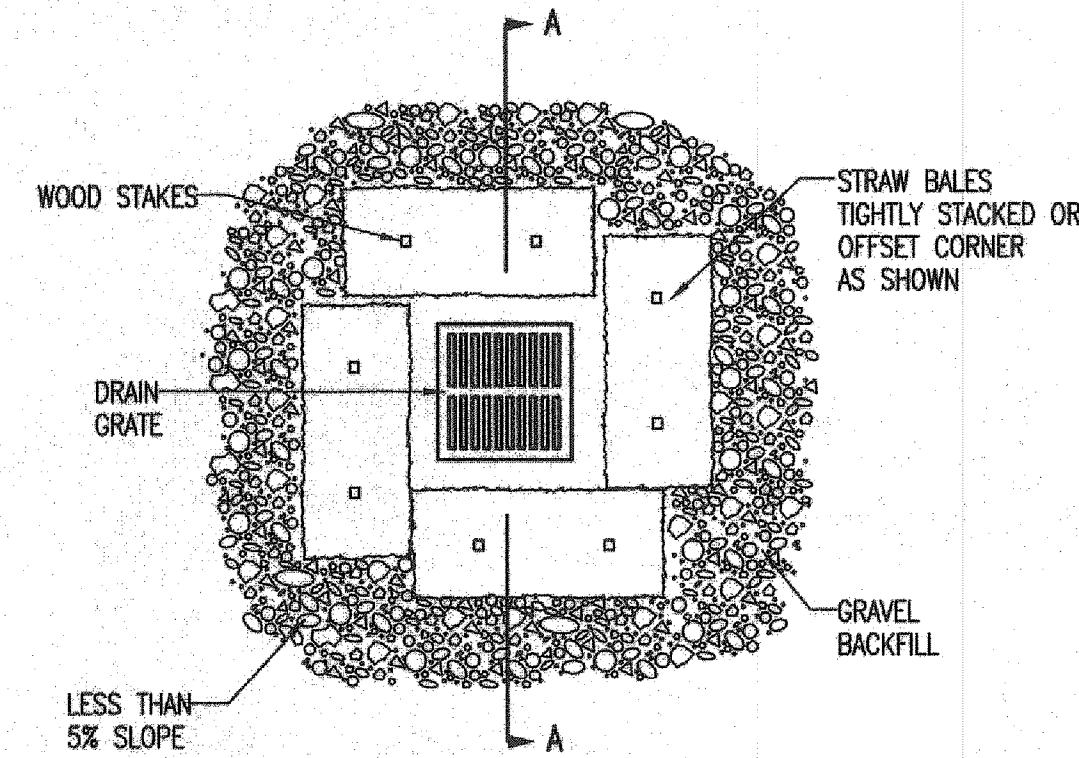
INSPECTION AND MAINTENANCE:

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.

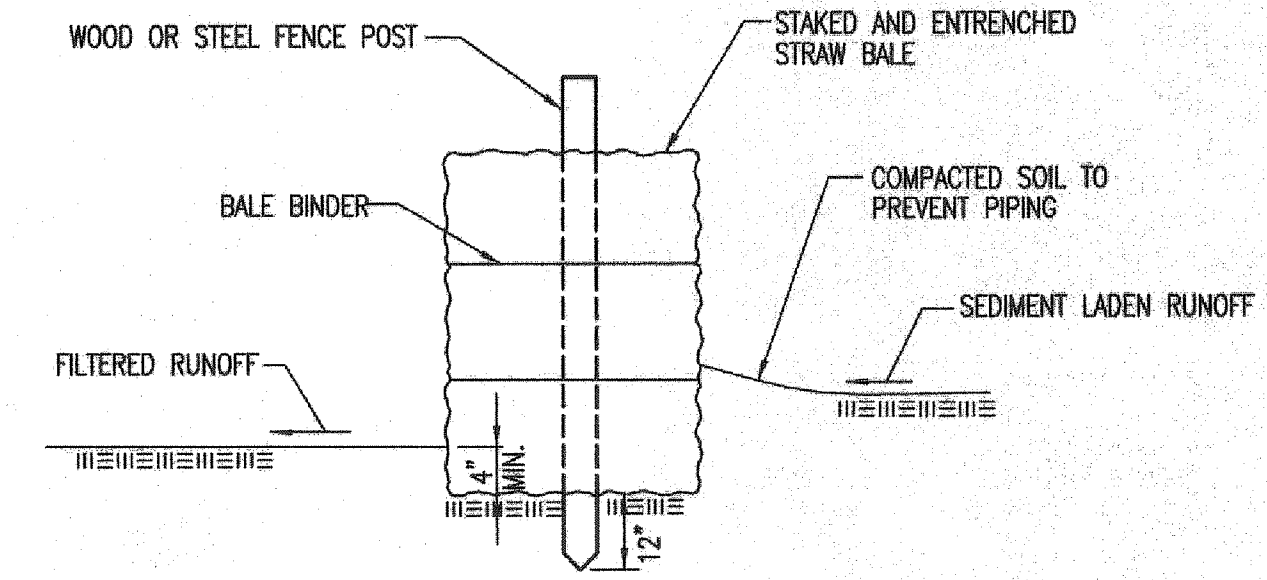
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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 OF 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. WHEN PRACTICABLE, 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:

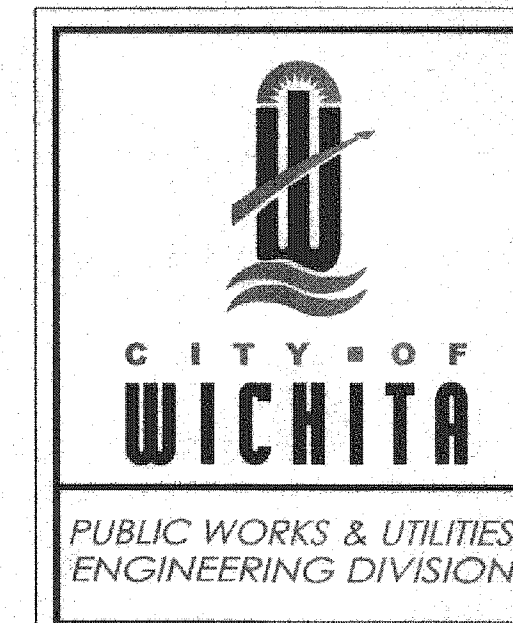
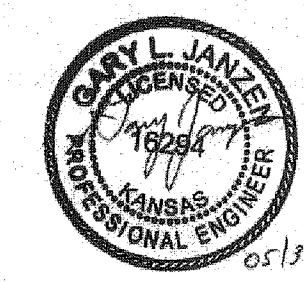
WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER 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



STRAW BALE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER: OCA NUMBER: DATE:

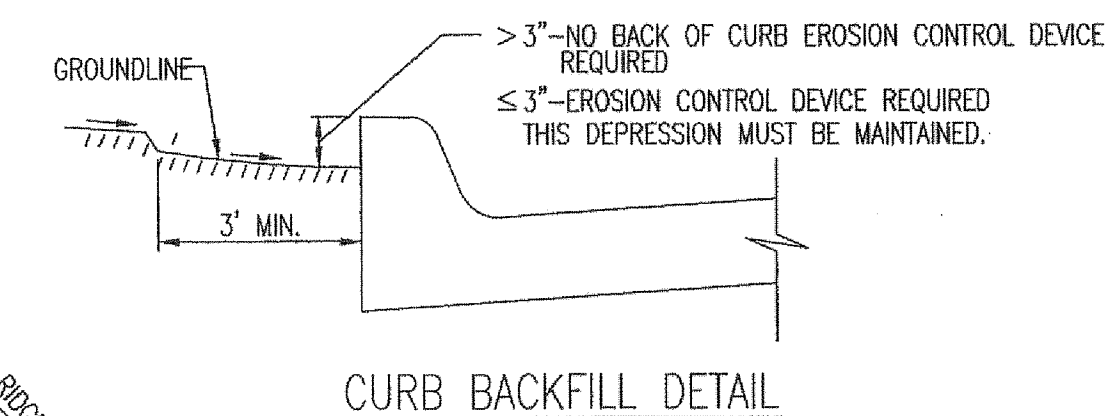
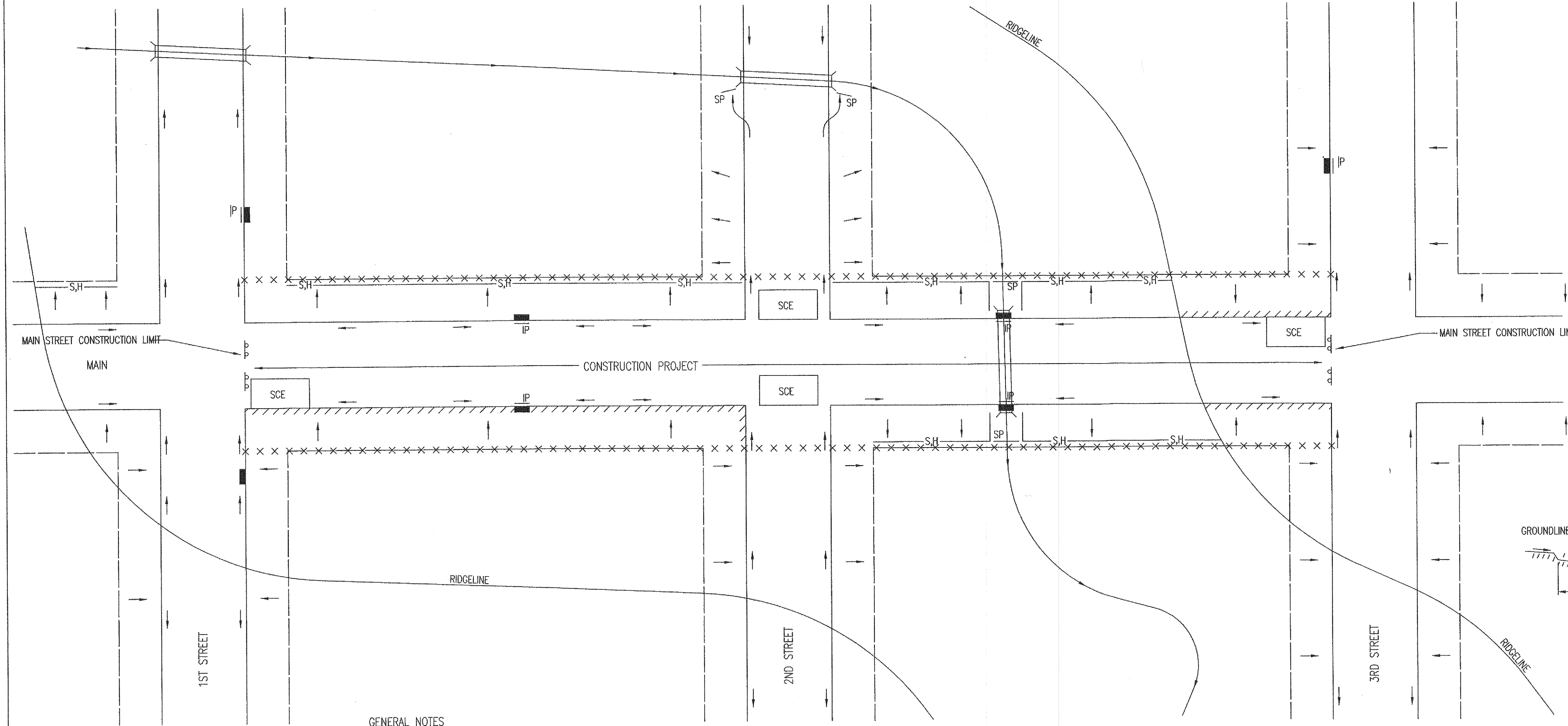
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

51W-503

| NO. | BY | DATE | DESCRIPTION |
|-----|----|------------|--------------------|
| 1 | TC | 06/12/2015 | ORIGINAL SUBMITTAL |
| 2 | DD | | REVISION |

GENERAL NOTES

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



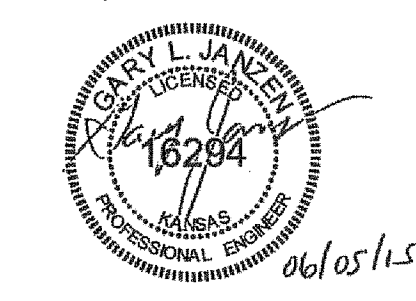
THIS IS A TEMPORARY MEASURE ONLY. WHEN APPROVED BY THE PROJECT ENGINEER, THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.


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

- 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.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- 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.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- 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:
 - 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)
 - 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.
 - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
 - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)





CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

REVISION: JUNE 2015

STREET IMPROVEMENT PROJECTS

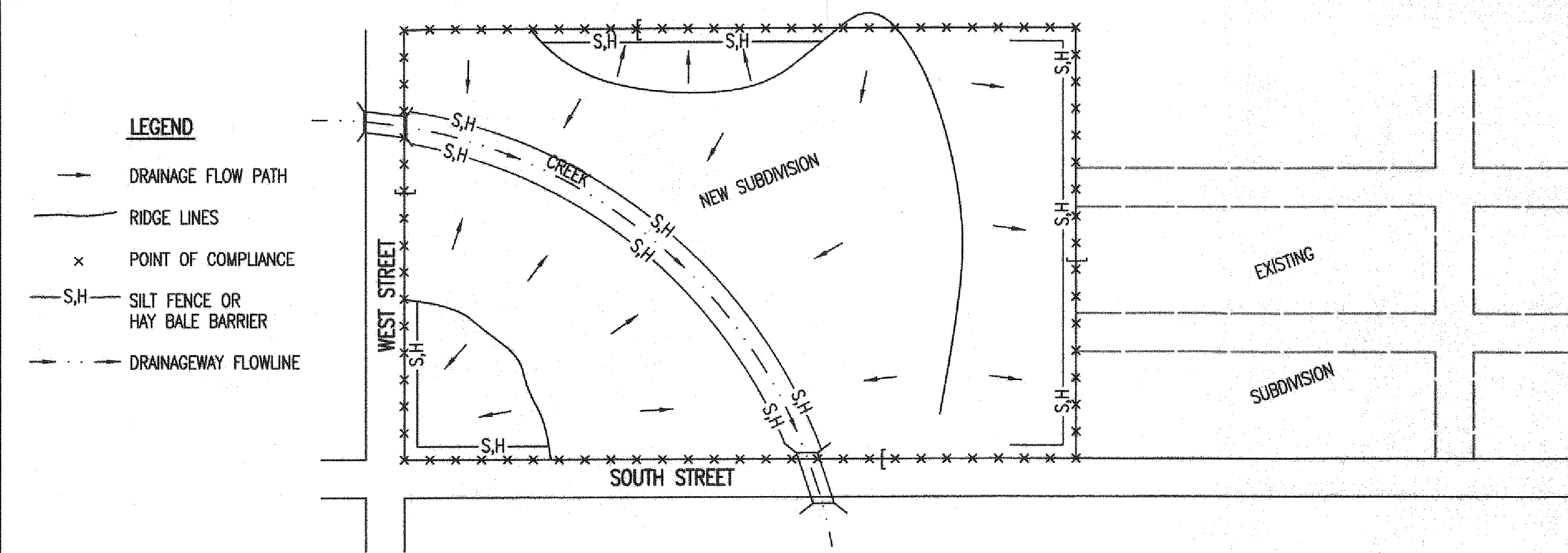
CITY ENGINEER
GARY JANZEN, P.E.

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

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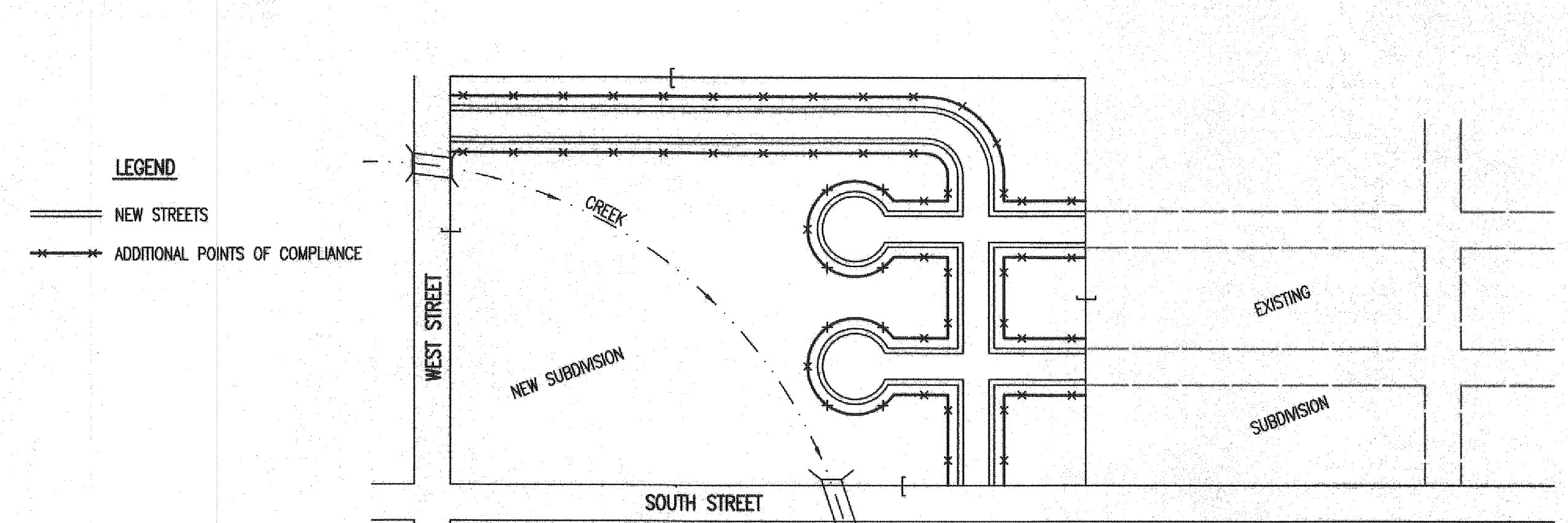
Renaissance Infrastructure Consulting
 5015 NW CANAL STREET, SUITE 100 RIVERSIDE MO, 64150
 816.800.0950
 WWW.RIC-CONSULT.COM

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



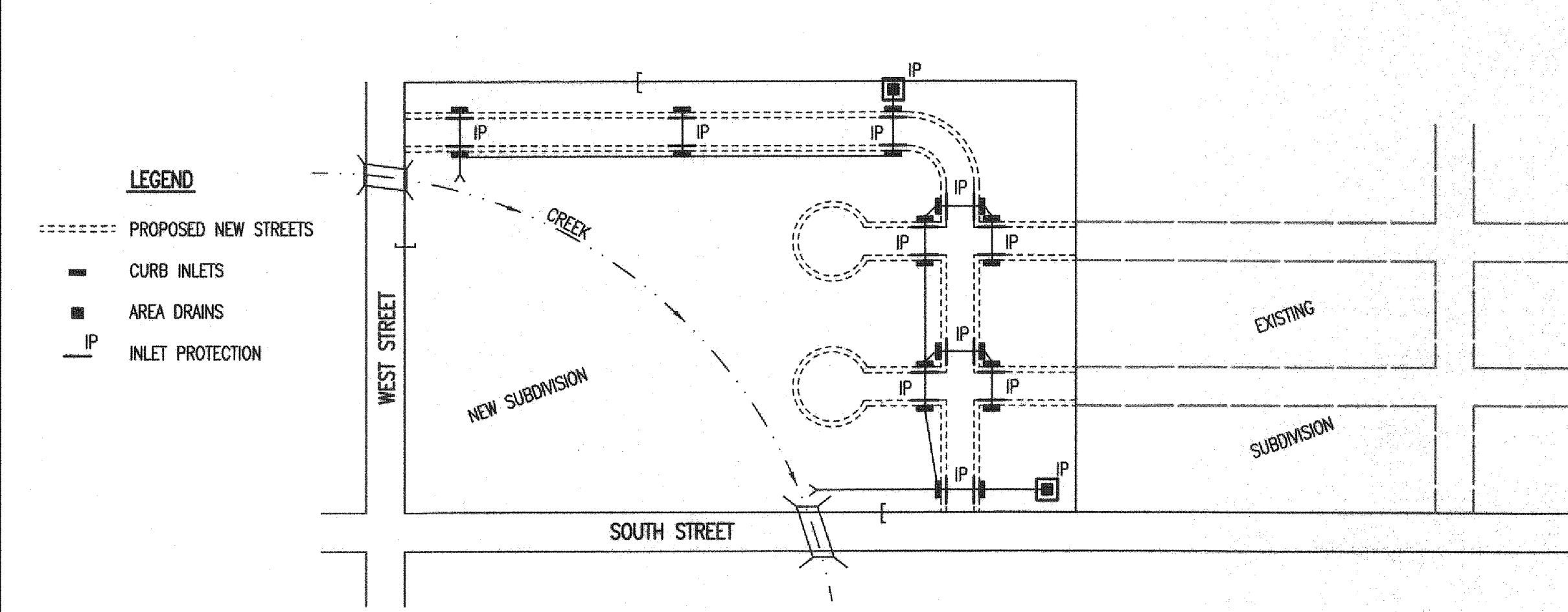
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
-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

PHASE 3 - STREET CONSTRUCTION



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

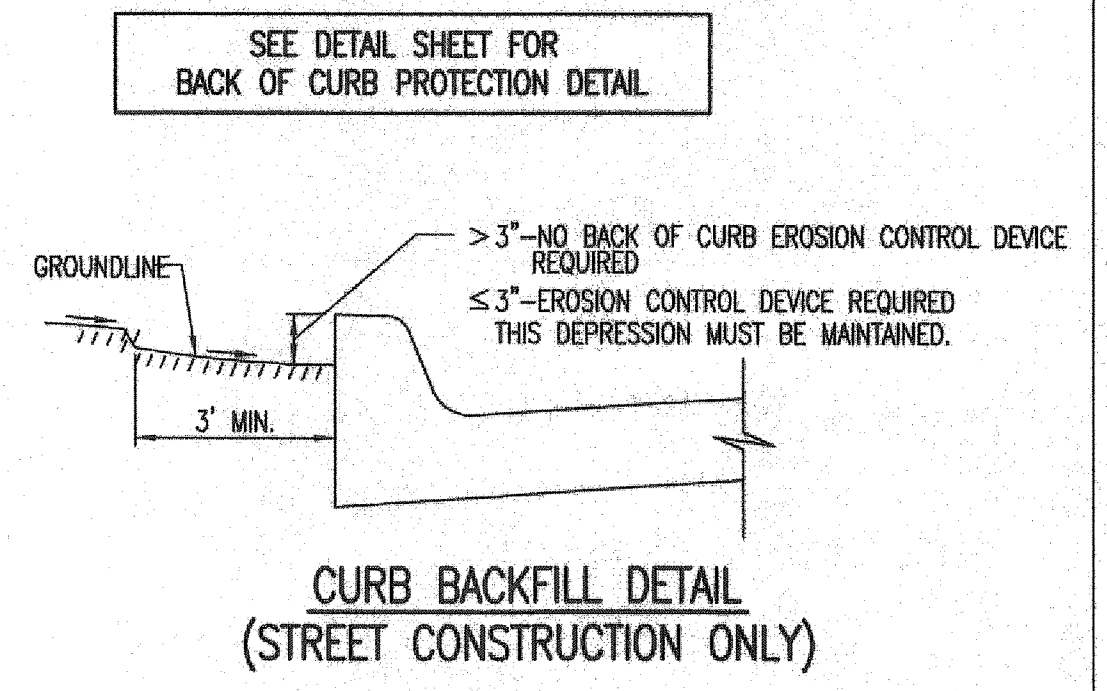
PHASE 2 - INSTALLATION OF STORM SEWER



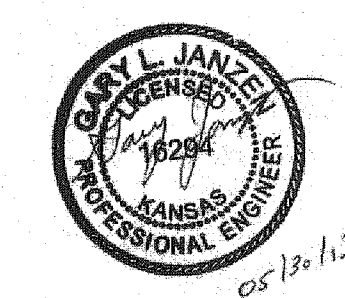
- DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
- AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
- AREA DRAINS - AS SOON AS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

GENERAL NOTES

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



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.



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|--|------------|------|---|--|--|
| CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION | | | SUBDIVISION DEVELOPMENT PROCESS | | |
| | | | CITY ENGINEER GARY JANZEN, P.E. | | |
| PROJECT NUMBER | OCA NUMBER | DATE | | | |
| CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | | SHEET | | |

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