PRIVATE PAVING PLANS FOR

SOUTH YMCA - PRIVATE DRIVE

AN ADDITION TO THE CITY OF WICHITA
SEDGWICK COUNTY, KANSAS

PROJECT NO. 243 PPP

GARY L. JANZEN, P.E. - CITY ENGINEER

OCA 607879

AS-BUILT PLANS
CONTACTOR: APAC
INSPECTING FIRM: MKEC
INSPECTOR : GENE RATH
DATE: 10-2015

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT

Paving
(Public Works) _____

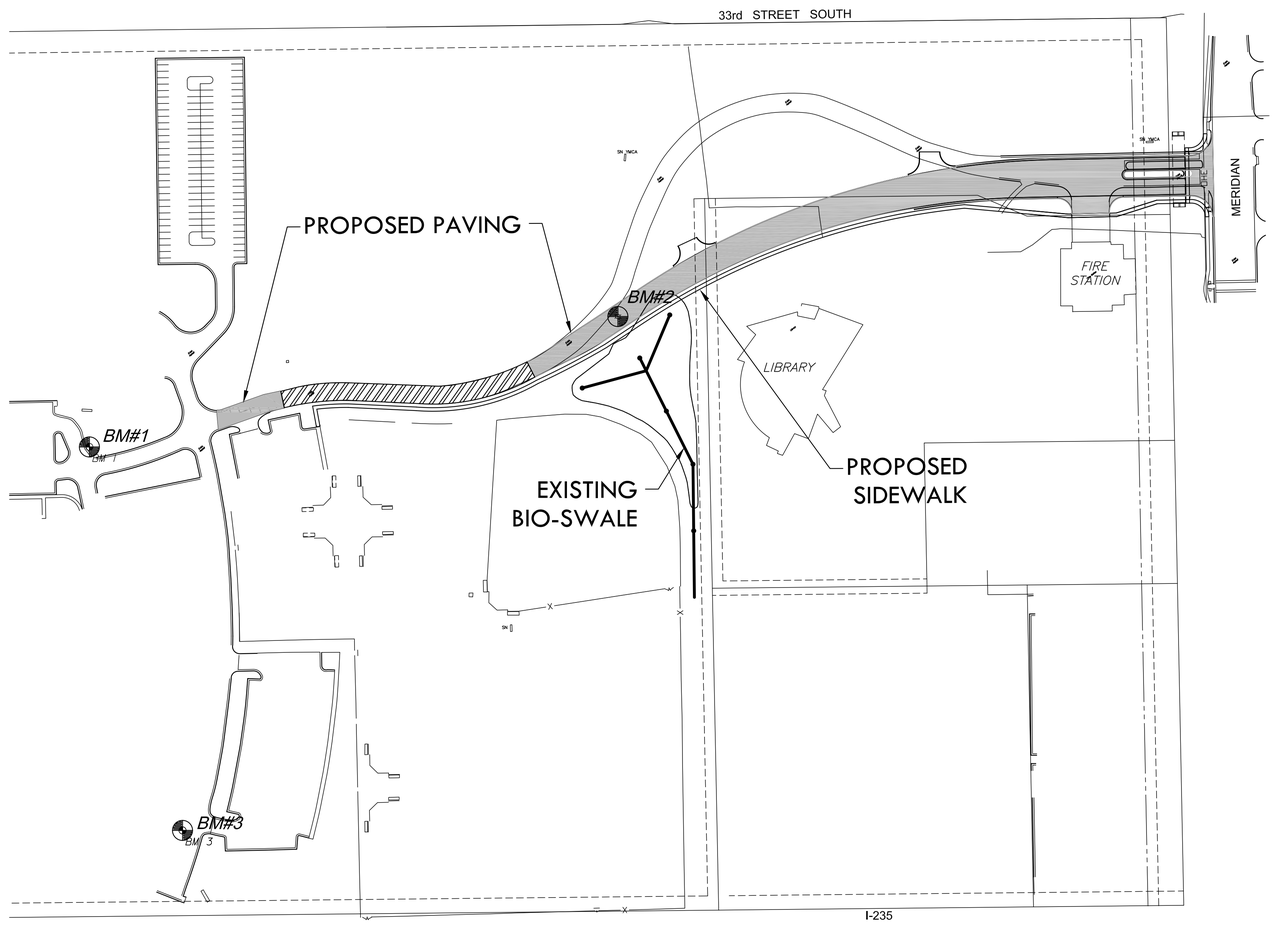
NOTE TO CONTRACTORS

Public Property:

Inspection and supervision of testing is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said Inspection to be in accordance with the City of Wichita Standard Construction Engineering Practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

Private Property:

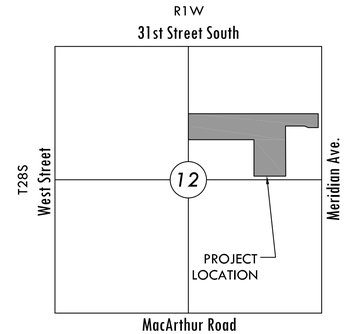
Installation and testing for the fire protection line is to be performed by a City of Wichita Licensed Fire Protection Contractor in accordance with the fire codes as adopted by the City of Wichita. All materials and construction practices for the fire protection line shall comply with the fire codes as adopted by the City of Wichita (available from the City of Wichita Fire Department). The Contractor shall not commence work without notification to and approval of the Wichita Fire Department. Inspection of the fire protection line is to be provided by a licensed engineering firm under contract with the Owner/Developer and the Fire Department. The contractor shall not start work until the project inspector is assigned to the project and present on the site. Any work done without inspection will be required to be uncovered for inspection.



SCALE: 1" = 100'

100 0 100 200

N



VICINITY MAP

No Scale

INDEX TO DRAWINGS

BENCHMARKS

BM #1
Chiseled square on top of light pole base Northeast of the main YMCA building.
N=1665839.24
E=1637932.32
Elevation = 1288.09 (NAVD 88)

BM #2
Chiseled square cut into the Southwest side of the top of a light pole base at the Southeast side of the entrance road to the YMCA, Northwest of the Library.
N=1666021.52
E=1638670.90
Elevation = 1288.82 (NAVD 88)

BM #3
Chiseled square on the top of the curb at the North end of an Island near the Southeast corner of the main parking lot, Southeast of the main YMCA building.
N=1665303.25
E=1638062.48
Elevation = 1284.42 (NAVD 88)

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
Bruce L Barkus 8-15-14

MKEC
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PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

TITLE SHEET

PROJECT NO.	243 PPP
DATE	JULY 2014
SCALE	1"=100'

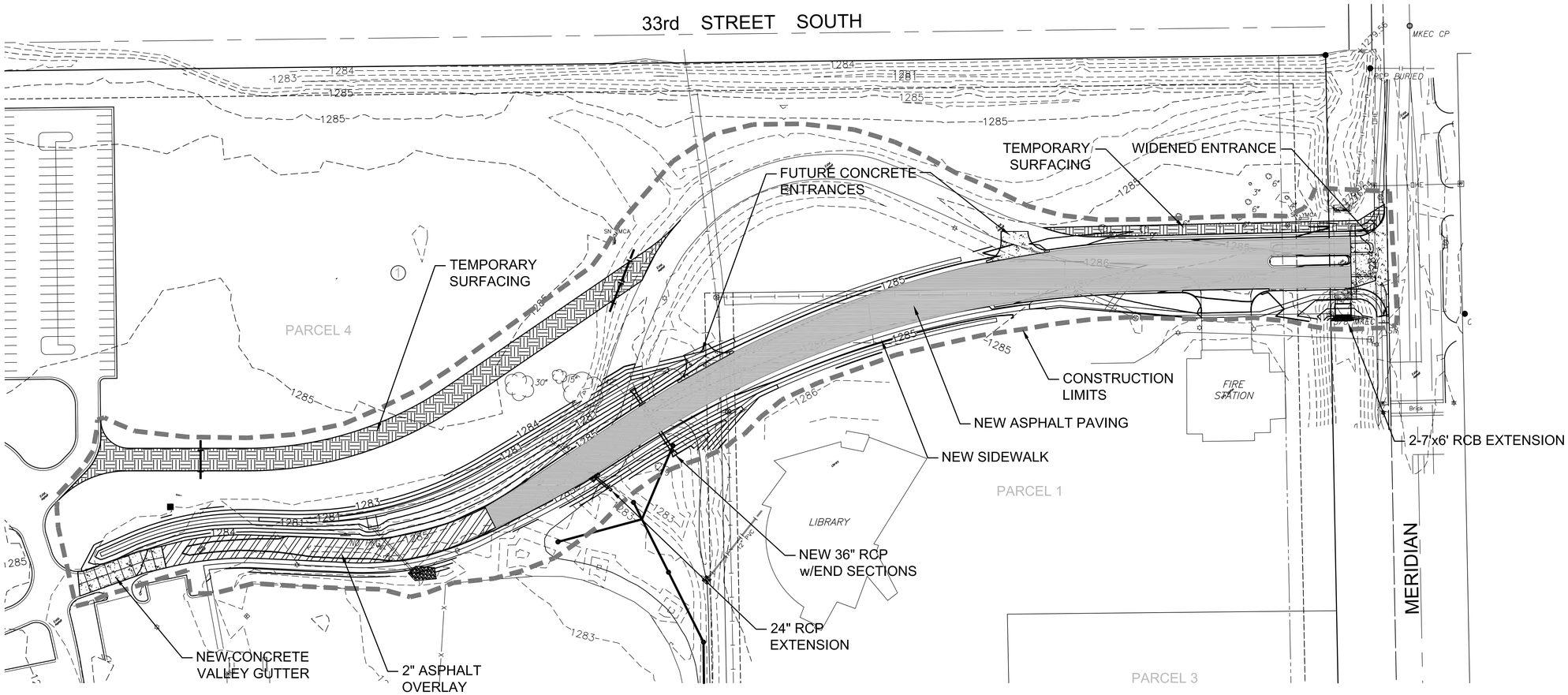
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
2	CITY COMMENTS	08.15.14
1	IFC	07.24.14

SHEET NO.

1 OF 20

J:\PROJECTS\2014\14010\397_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAV14387_ET.DWG



GENERAL NOTES

1. UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA CONCRETE PAVEMENT AND ASPHALTIC CONCRETE PAVEMENT SPECIFICATIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
   KANSAS ONE-CALL 1-800-344-7233
   OR 687-2470 (LOCAL WICHITA)
   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

SBC (TELEPHONE)	800-870-8390
COX COMMMUNICATIONS (CABLE)	262-0661
WESTAR (ELECTRIC)	383-8600
KANSAS GAS SERVICE (GAS)	832-3101
CITY OF WICHITA WATER & SEWER MAINT.	262-6000
BLACK HILLLS ENERGY (GAS)	800-303-0357

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

4. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

5. 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 THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

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

7. CONTRACTOR SHALL RESEED AND MULCH ALL DISTURBED AREAS. COST SHALL BE CONSIDERED SUBSIDIARY TO SITE RESTORATION.

8. DEVELOPER FOR THIS PROJECT IS:
   YMCA
   402 N. MARKET
   WICHITA, KS 67202
   DENNIS SCHOENEBECK
   (316) 219-9622

9. ALL COMPACTION OF EARTHWORK SHALL BE 95% STANDARD DENSITY IN ACCORDANCE WITH ASTM D-698.

10. OTHER CONSTRUCTION MAY BE UNDER WAY SIMULTANEOUSLY WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH ANY CONTRACTORS CONSTRUCTING OTHER PORTIONS OF THE PROJECT.

11. EXCESS EXCAVATION SHALL BE STOCKPILED ON-SITE IN A LOCATION APPROVED BY THE FIELD ENGINEER.

12. STAKING, TESTING AND INSPECTION WILL BE PROVIDED BY THE MKEC ENGINEERING, INC. PLEASE CONTACT MICHAEL SMALL OR CURTIS LUTTRELL AT (316) 684-9600 TO SCHEDULE FIELD CREWS.

13. THIS IS DESIGN GRADING. ALL GRADES SHALL BE CONTOURED SMOOTHLY WITH GENTLE ROUNDING/SHAPING OF ALL AFFECTED LAND SURFACES. ABRUPT TRANSITIONS AT THE TOP OF SLOPES WHERE PROPOSED GRADES MEET EXISTING ARE NOT ACCEPTABLE. NOT ALL SLOPES ARE CONSTANT AND THEREFORE THE GRADING PLANS SHALL BE REFERRED TO FOR FINAL GRADE SHAPING.

14. A 6" LAYER OF TOPSOIL SHALL BE STRIPPED IN ALL AREAS OF CUT AND SAVED BACK FOR REPLACEMENT IN SEEDED AREAS INDICATED. ANY EXCESS TOPSOIL SHALL BE SEPARATELY STOCK PILED ON-SITE AT AN APPROVED LOCATION. NO TOPSOIL SHALL BE PLACED ON LOTS OR WITHIN STREET R/W UNLESS SPECIFICALLY NOTED.

15. TOPSOIL SHALL BE REPLACED AT A DEPTH OF 6" IN ALL SEEDED AREAS. THE FINISHED GRADE SHOWN ON THE PLANS INDICATES THE SURFACE ELEVATION AFTER THE TOPSOIL LAYER HAS BEEN PLACED.

16. AS THE PROJECT NEARS COMPLETION, THE CONTRACTOR SHALL RIP (SCARIFY) ALL HAUL ROADS WITH AN AGRICULTURAL IMPLEMENT INTENDED FOR SUCH PURPOSES TO A DEPTH OF 18". MULTIPLE PASSES MAY BE NECESSARY TO THOROUGHLY ALLEVIATE COMPACTION.

17. THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.

18. ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.

19. TREES TO BE REMOVED ARE MARKED ☒. ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED.

20. ALL TEMPORARY SURFACING SHALL BE REMOVED AND DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THE SOIL SHALL BE SCARIFIED TO A DEPTH OF 18" IN AREAS TO BE RESEEDED. IN AREAS UNDER PROPOSED PAVEMENT, SCARIFY TO A DEPTH OF 9" AND RECOMPACT TO 95% STD DENSITY PER ASTM-698. THIS WORK SHALL BE SUBSIDIARY TO SITE RESTORATION.

21. ALL GRADING, PIPE AND MATERIALS NEEDED FOR TEMPORARY SURFACING WORK SHALL BE SUBSIDIARY TO TEMPORARY SURFACING.

N

SCALE: 1"=60'
0 60 120

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

OVERALL SITE PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=60'

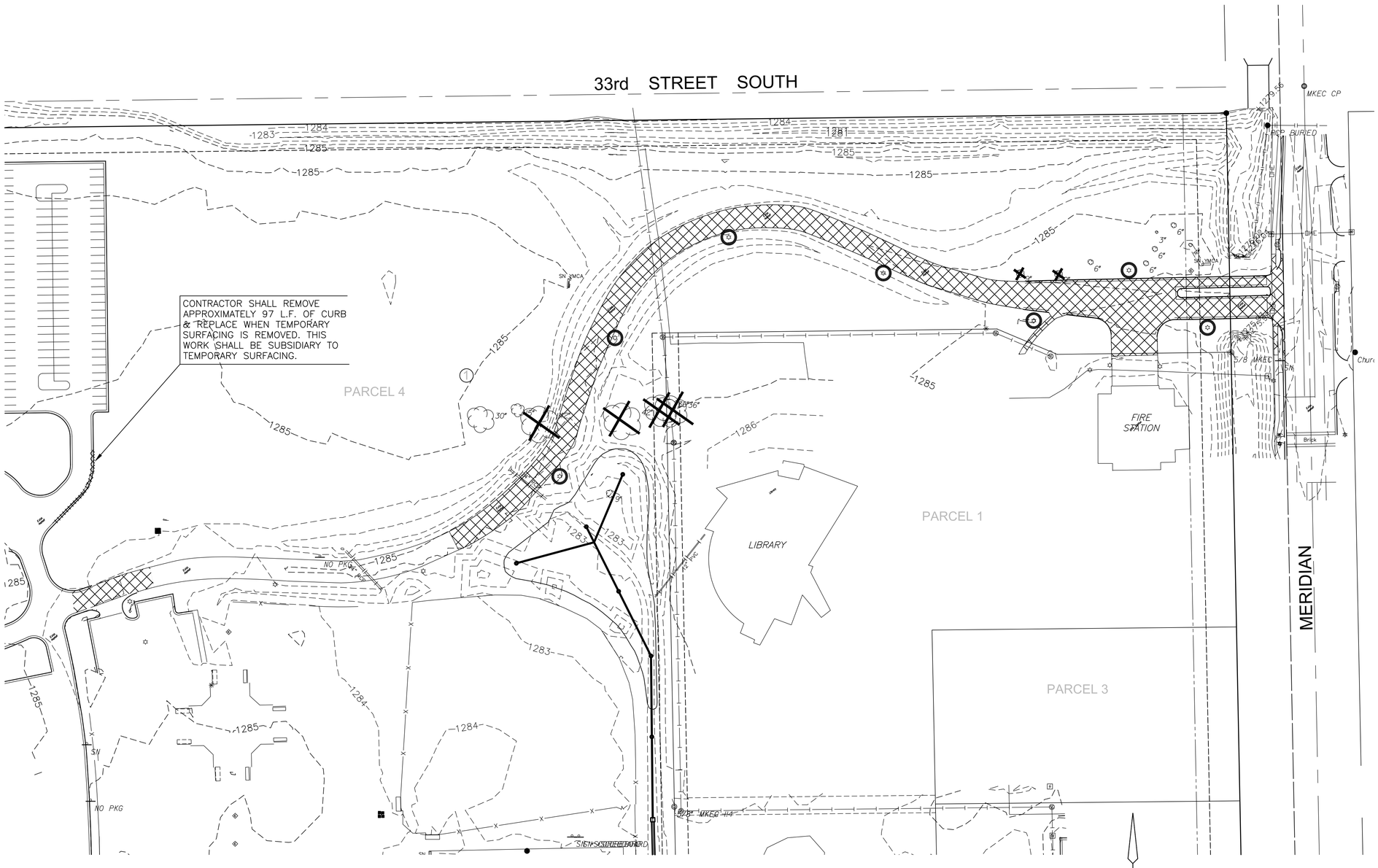
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
2 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CADD\PAVY1438T_SITE.DWG

PLOTTED: Thursday, July 24, 2014 @ 02:18PM



LEGEND

- Tree Removal
- Pavement Removal
- Light Pole Removal

Note:
Contractor to remove and reset all signs as needed.
Contractor to save light poles for reuse.

N

SCALE: 1"=60'
0 60 120

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

DEMOLITION PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=60'

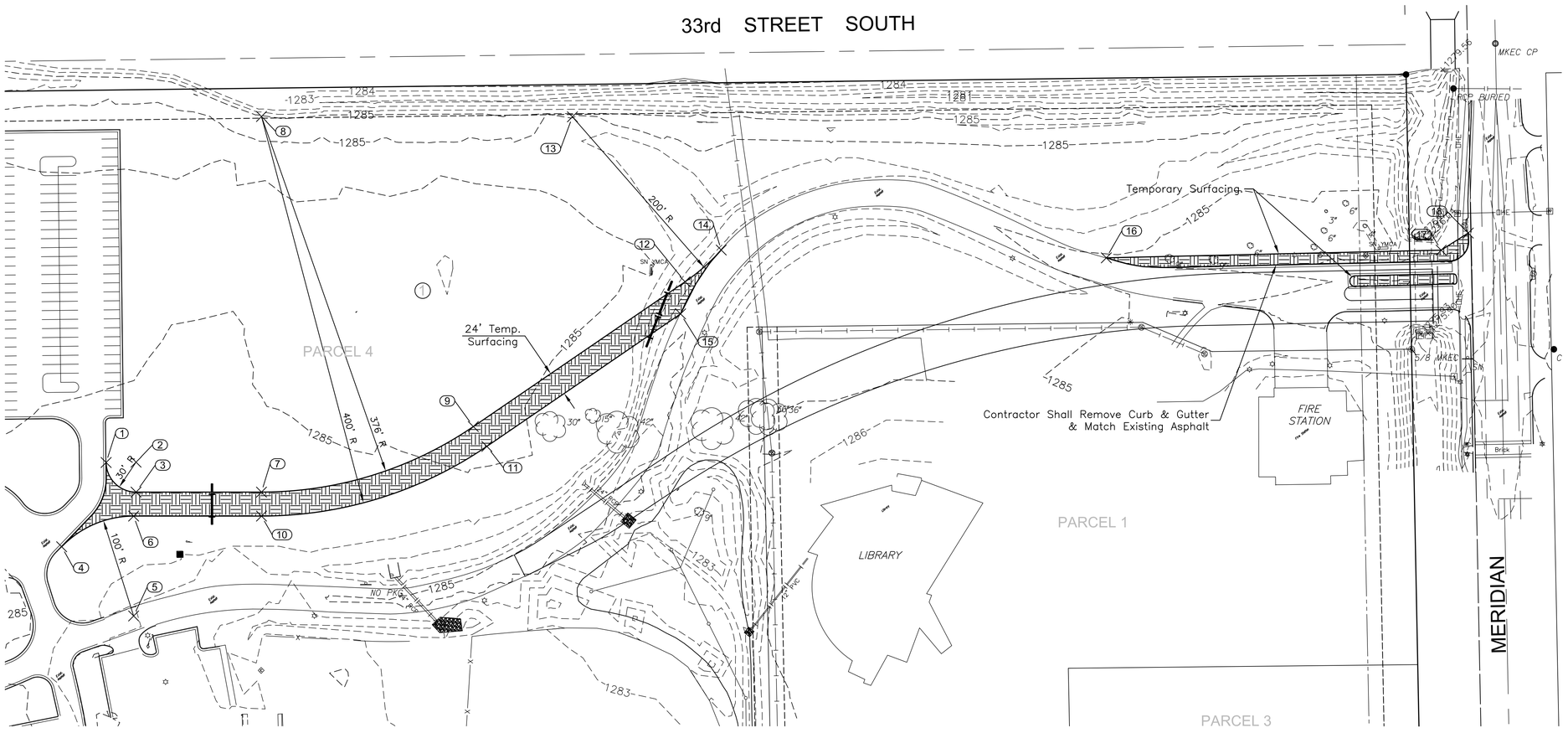
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

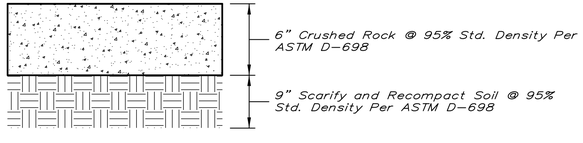
NO.	REVISION	DATE
1	IFC	07,24,14

SHEET NO.

3 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAV\14387_DEMO.DWG





TEMPORARY SURFACING DETAIL

TEMPORARY SURFACING POINTS

Point #	Northing	Easting	Desc.
1	1666050.7425	1638135.1404	PC
2	1666051.1009	1638165.1383	RAD.PT.
3	1666021.1009	1638165.1383	PT
4	1665966.4037	1638090.6059	PC
5	1665897.1009	1638162.6969	RAD.PT.
6	1665997.1009	1638162.6969	PT
7	1666021.1009	1638290.7735	PC
8	1666397.1009	1638290.7735	PC
9	1666086.6854	1638502.9485	PRC
10	1665997.1009	1638290.7735	PC
11	1666066.8716	1638516.4916	PRC
12	1666231.6686	1638715.0614	PC
13	1666396.7833	1638602.2024	RAD.PT.
14	1666263.4302	1638751.2560	PT
15	1666199.4913	1638710.5164	PI
16	1666255.6154	1639136.9491	PI
17	1666263.3076	1639472.3587	PI
18	1666280.4322	1639499.4498	PI

N

SCALE: 1"=60'

0 60 120

Bryce L Barkus 7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

TEMPORARY SURFACING

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1" = 60'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.

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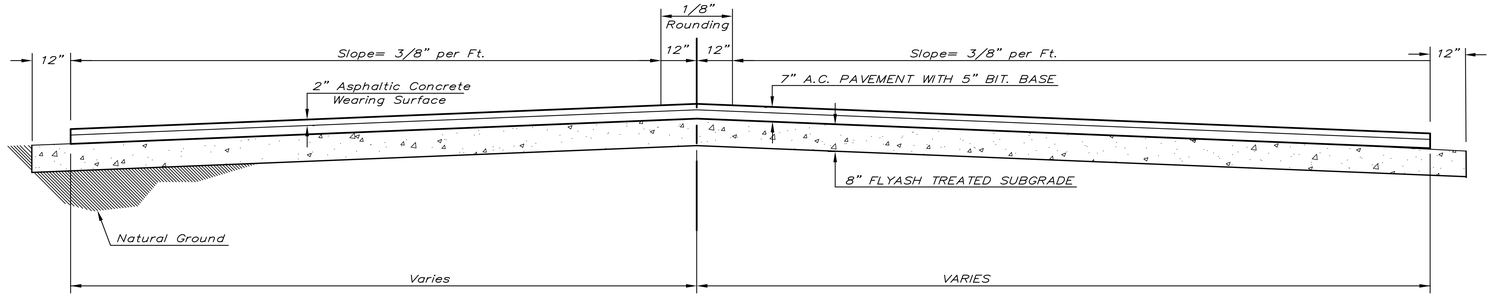
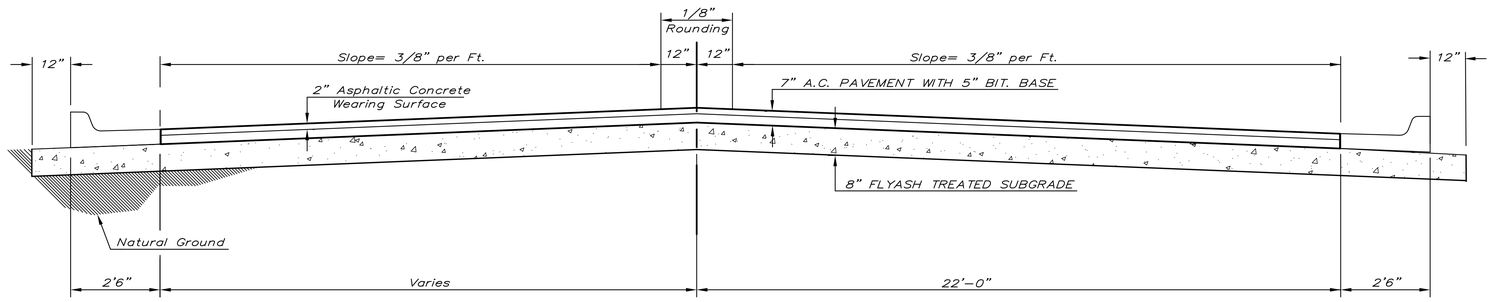
J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVI\1438? PAVE 42DWG

TRANSVERSE SECTION



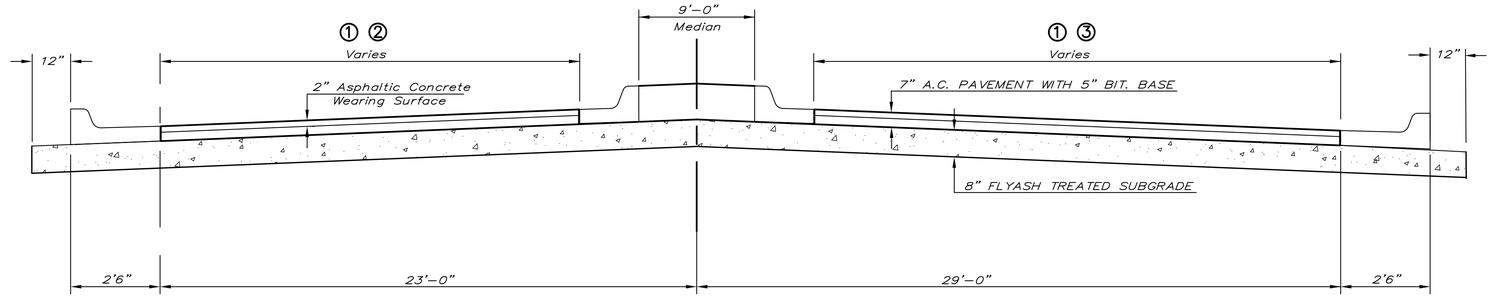
STA. 14+49.11 TO STA. 20+41.06

TRANSVERSE SECTION



STA. 20+41.06 TO STA. 23+44.01

TRANSVERSE SECTION



STA. 23+44.01 TO STA. 24+18.60

① CROSS SLOPE IS 3/8"/FT. FROM STA. 23+44.01 TO STA. 23+75.00

② TRANSITION CROSS SLOPE LT. FROM 3/8"/FT AT STA. 23+75.00 TO 3/16"/FT AT STA. 24+18.60

③ TRANSITION CROSS SLOPE RT. FROM 3/8"/FT AT STA. 23+75.00 TO 1/4"/FT AT STA. 24+18.60

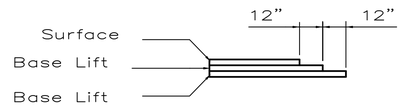
General Notes

A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE.)



TRANSVERSE CONSTRUCTION JOINTS

Transverse construction joints shall be constructed in flexible base pavements at locations where pavement joins existing flexible base pavement as shown by the detail. All costs associated with the construction of the transverse joint shall be included in the bid price for Square Yards 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\DS-CIVIL\CAD\PAV\14387 TYP SECTIONS.DWG

TYPICAL SECTIONS

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NTS

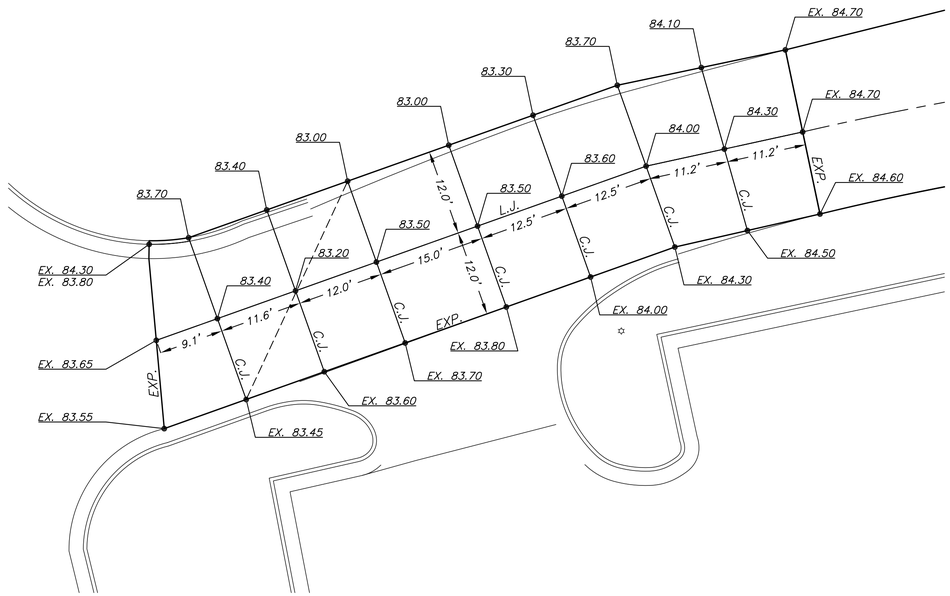
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07,24,14

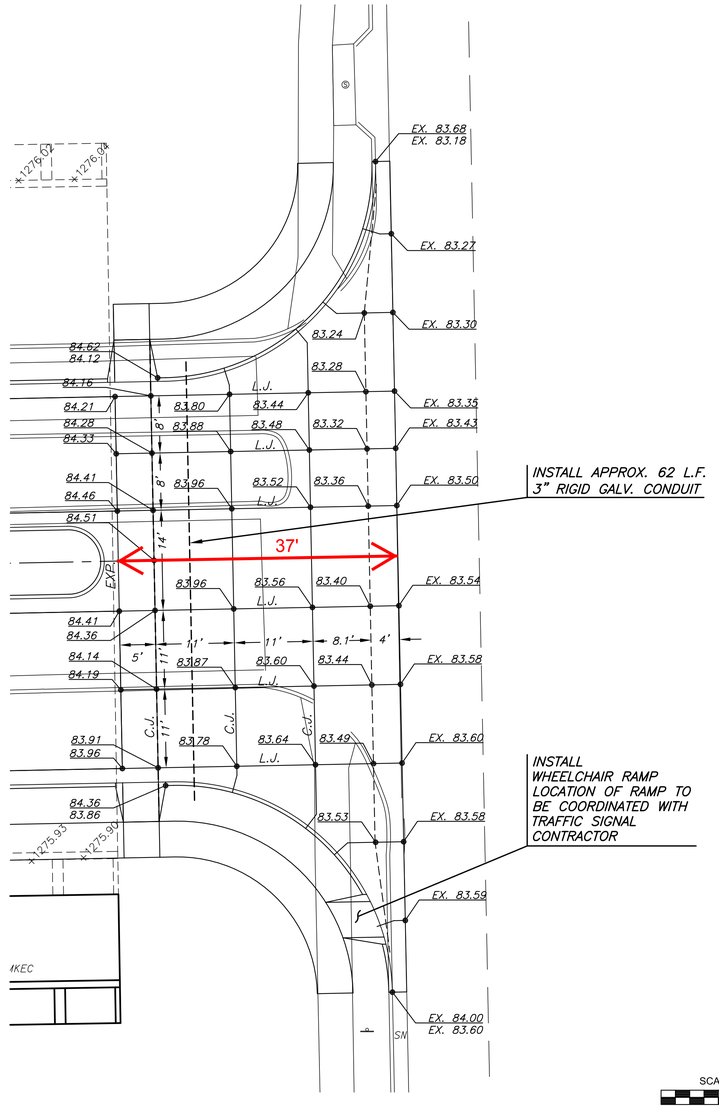
BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

SHEET NO.
5 OF 20

PLOTTED: Friday, August 15, 2014 @ 10:08AM



SCALE: 1"=10'
0 10 20



SCALE: 1"=10'
0 10 20

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

PAVING DETAILS

PROJECT NO.	243 PPP
DATE	JULY 2014
SCALE	1"=10'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
2	CITY COMMENTS	08.15.14
1	IFC	07.24.14

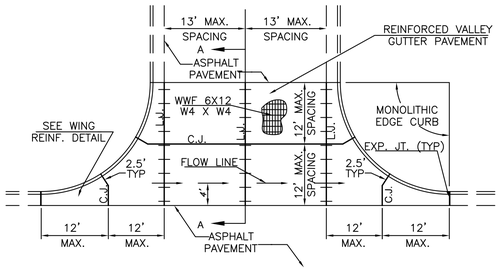
BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
8-15-14

SHEET NO.

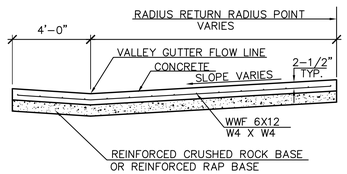
6 OF 20

J:\PROJECTS\2014\141010\397_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVI\14397 PAVE DETAIL 1.DWG

6" x 12" W4XW4 WIRE FABRIC REINFORCING SHALL BE PLACED SUCH THAT THE WIRES WITH THE 6" SPACING WILL RUN PARALLEL WITH THE LONGITUDINAL JOINT.

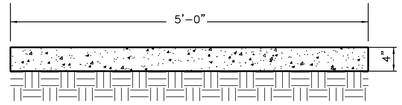


PLAN



SECTION A-A

VALLEY GUTTER DETAIL
SCALE: NONE



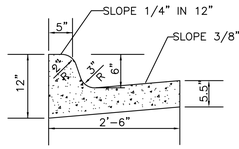
SIDEWALK DETAIL
SCALE: NONE

GENERAL NOTE:

SIDEWALKS SHALL NOT EXCEED 5% SLOPE OR EXCEED A 2% CROSS SLOPE.

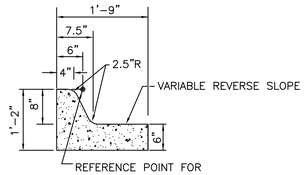
NOTE: WWF TO BE SUPPORTED BY SAND PLATE BAR CHAIRS T 4'-0" O.C.

SAW CUT JOINTS APPROXIMATELY EVERY 5'-0".

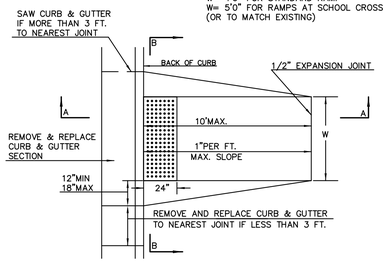


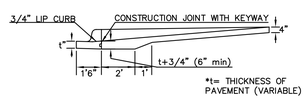
REFER TO GRADING PLANS FOR CURB PLACEMENT TO ENSURE PROPER DRAINAGE

COMBINED CURB & GUTTER, FULL (6")
SCALE: NONE

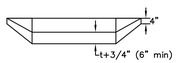


NON MOUNTABLE MEDIAN COMBINED CURB & GUTTER (8")
SCALE: NONE

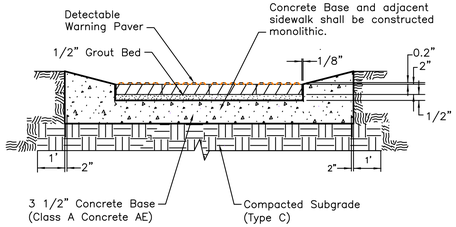




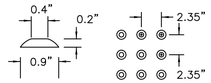
SECTION A-A



SECTION B-B



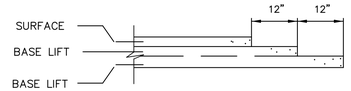
TYPICAL SECTION DETECTABLE WARNING PAVER



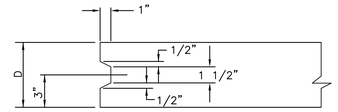
DOME DETAIL

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

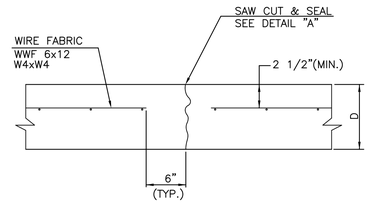
WHEELCHAIR RAMP DETAILS
SCALE: NONE



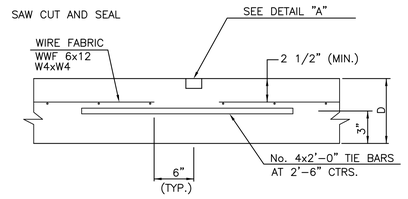
TRANSVERSE CONSTRUCTION JOINT



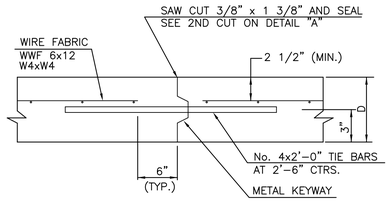
KEYWAY DETAIL



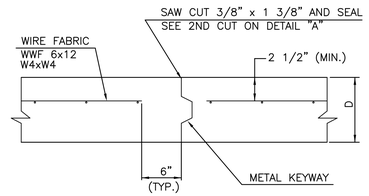
CONTRACTION JOINT DETAIL (C.J)
SCALE: NONE



LONGITUDINAL JOINT DETAIL (L.J)
SCALE: NONE



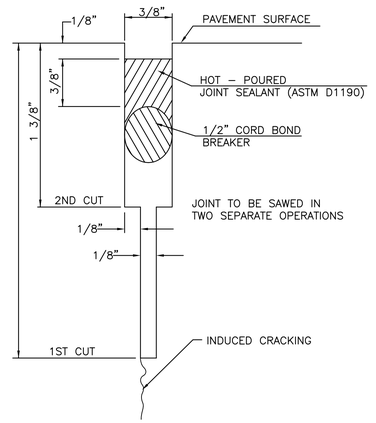
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT (L.J)
SCALE: NONE (Alternate L.J.)



OPTIONAL CONTRACTION CONSTRUCTION JOINT (C.J)
SCALE: NONE (Alternate C.J.)

NOTE:
EXTRA THICKNESS TO BE SUBSIDIARY TO PRICE OF SQ. YDS. PAVEMENT.

EXPANSION JOINT
SCALE: NONE



DETAIL "A"
SCALE: NONE

BRUCE L. BARNUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

MKEC
Wichita, KS • 316-684-9600

PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

PAVING DETAILS

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NTS

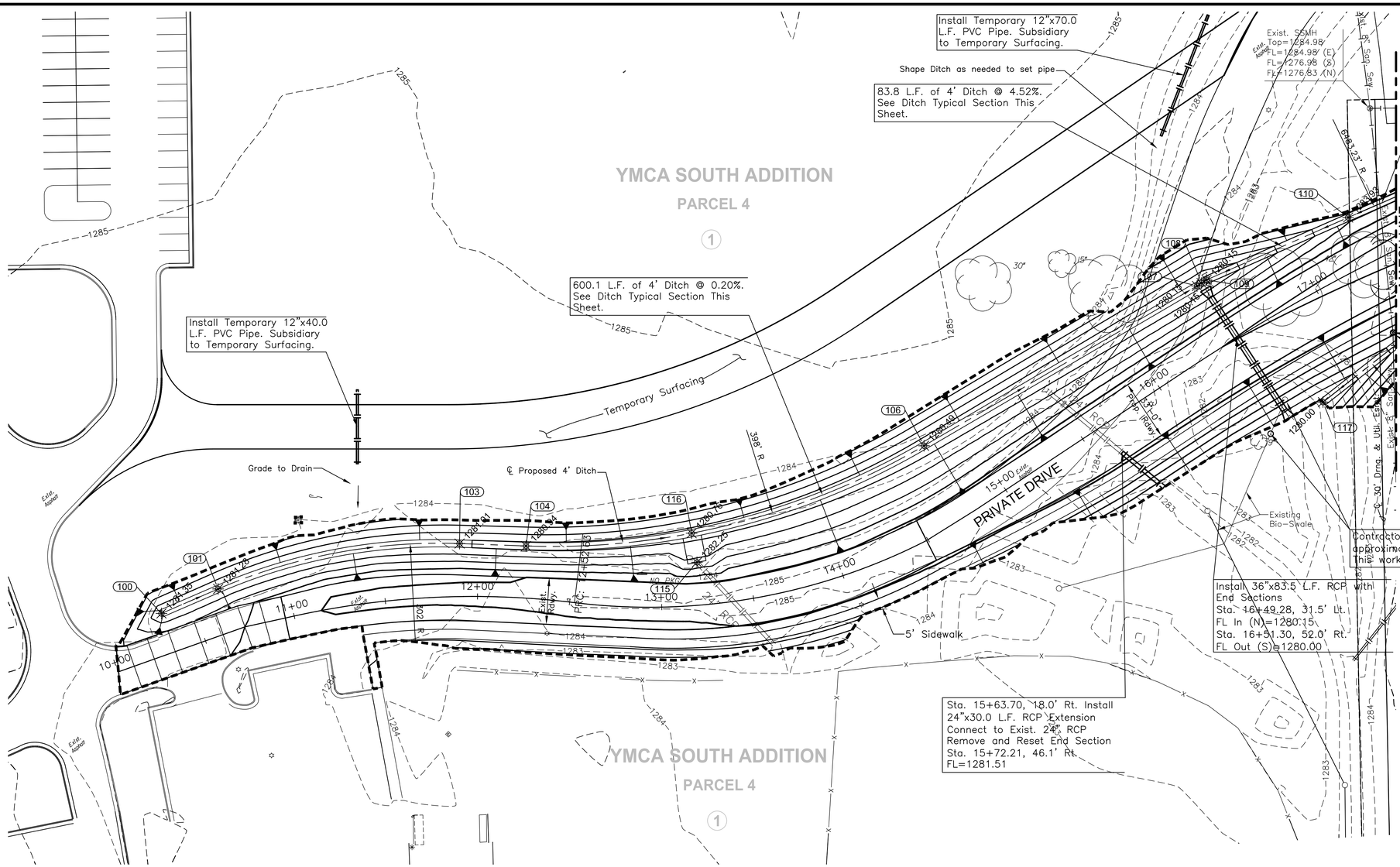
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

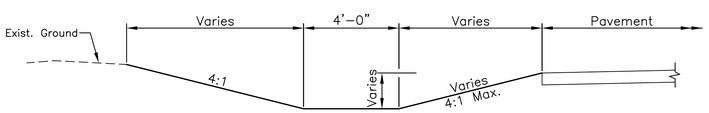
NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
7 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\EXD-CIVIL\CADD\AY\140387_EDI.DWG

PLOTTED: Thursday, July 24, 2014 @ 02:20PM





TYPICAL DITCH SECTION

LEGEND

- FENCE
- SSMH - SANITARY SEWER MANHOLE
- GM - GAS METER
- POLE - POLE
- HLP - HIGH LINE POLE
- GATE
- WALL
- LP - LIGHT POLE
- FH - FIRE HYDRANT
- WV - WATER VALVE
- WM - WATER METER
- PP - POWER POLE AND GUY ANCHOR
- TR - TELEPHONE RISER
- INLET
- STORM SEWER PIPE
- W - WATER LINE
- SANITARY SEWER LINE
- G - GAS LINE
- T - TELEPHONE LINE
- 1360 - PROP. CONTOURS
- 1360 - EXIST. CONTOURS
- UGE - UNDERGROUND ELECTRIC LINE
- OHT - OVERHEAD TELEPHONE
- OHE - OVERHEAD ELECTRIC
- FOC - UNDERGROUND FIBER OPTIC CABLE
- GRADING LIMITS
- SECTION CORNER
- PROPERY CORNER FOUND
- BM - BENCHMARK
- 1350.00 - SPOT ELEV.
- 100 - COORDINATE POINT
- FLOW ARROW

GRADING POINTS

Point #	Northing	Easting	Desc.	Elevation
100	1665908.01	1638135.10	PI	1281.35
101	1665921.28	1638165.80	PC	1281.28
102	1665644.05	1638285.59	RAD.PT.	1285.11
103	1665945.85	1638296.50	PT	1281.01
104	1665944.55	1638332.52	PC	1280.94
105	1666342.29	1638346.89	RAD.PT.	1284.74
106	1665998.84	1638548.00	PT	1280.49
107	1666085.38	1638695.80	PI	1280.15
108	1666086.96	1638698.27	PI	1280.15
109	1666088.68	1638700.95	PI	1280.15
110	1666122.48	1638777.61	PC	1283.93
111	1672072.53	1636202.88	RAD.PT.	0.00
112	1666158.72	1638859.79	PRC	1284.11
113	1665142.34	1639305.47	RAD.PT.	0.00
114	1666222.21	1639049.45	PT	1284.51
115	1665935.69	1638425.04	PI	1282.25
116	1665951.47	1638422.15	PI	1280.76
117	1666022.46	1638763.97	PI	1280.00
118	1666077.43	1638833.99	PC	1283.95
119	1665186.13	1639255.65	RAD.PT.	1281.06
120	1666157.67	1639087.45	PT	1284.49

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
Bryce L Barkus 7-24-14

MKEC
Wichita, KS • 316-684-9600

GRADING PLANS FOR
SOUTH YMCA - PRIVATE DRIVE
WICHITA, KS

GRADING PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1" = 100'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
8 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\GRD\1438787GP01.DWG

PLOTTED: Thursday, July 24, 2014 @ 02:21PM

290.1 L.F. of 4' Ditch @ 0.20%.
See Ditch Typical Section Sheet 8.

YMCA SOUTH ADDITION
PARCEL 4
(1)

℄ Proposed 4' Ditch

MATCH LINE

PRIVATE DRIVE

Temporary Surfacing

5' Sidewalk

Limits of Grading

355.7 L.F. of 4' Ditch @ 0.20%.
See Ditch Typical Section Sheet 8.

℄ Proposed 4' Ditch

YMCA SOUTH ADDITION
PARCEL 1
(1)

Sta. 24+16.32, 40.54' Rt. Install 2-7'x6'x18.0' Precast RCB Connect to Exist. 2-7'x6' RCB. Remove and Reset Exist. Precast Concrete End Section to Sta. 24+16.26, 58.54' Rt. Grade Ditch as needed to match existing flowlines and slopes.

SW YMCA

MERIDIAN AVE.

90' R/W

50' Bldg. Stbk.

35' Drng. & Util. Esmt.

Fire Station

Brick

Exist. SSMH Top=1285.27

Exist. SSMH Top=1286.13

N

SCALE: 1"=30'
0 30 60

LEGEND

- FENCE
- SSMH - SANITARY SEWER MANHOLE
- GM - GAS METER
- POLE - POLE
- HLP - HIGH LINE POLE
- GATE
- WALL
- LP - LIGHT POLE
- FH - FIRE HYDRANT
- WV - WATER VALVE
- WM - WATER METER
- PB - POWER POLE AND GUY ANCHOR
- TR - TELEPHONE RISER
- INLET
- STORM SEWER PIPE
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- OHT - OVERHEAD TELEPHONE
- OHE - OVERHEAD ELECTRIC
- FOC - UNDERGROUND FIBER OPTIC CABLE
- GRADING LIMITS
- SECTION CORNER
- PROPERY CORNER FOUND
- BM - BENCHMARK
- 1350.00 - SPOT ELEV.
- (100) - COORDINATE POINT
- FLOW ARROW

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
Bryce L Barkus 7-24-14

GRADING POINTS				
Point #	Northing	Easting	Desc.	Elevation
100	1665908.01	1638135.10	PI	1281.35
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103	1665945.85	1638296.50	PT	1281.01
104	1665944.55	1638332.52	PC	1280.94
105	1666342.29	1638346.89	RAD.PT.	1284.74
106	1665998.84	1638548.00	PT	1280.49
107	1666085.38	1638695.80	PI	1280.15
108	1666086.96	1638698.27	PI	1280.15
109	1666088.68	1638700.95	PI	1280.15
110	1666122.48	1638777.61	PC	1283.93
111	1672072.53	1636202.88	RAD.PT.	0.00
112	1666158.72	1638859.79	PRC	1284.11
113	1665142.34	1639305.47	RAD.PT.	0.00
114	1666222.21	1639049.45	PT	1284.51
115	1665935.69	1638425.04	PI	1282.25
116	1665951.47	1638422.15	PI	1280.76
117	1666022.46	1638763.97	PI	1280.00
118	1666077.43	1638833.99	PC	1283.95
119	1665186.13	1639255.65	RAD.PT.	1281.06
120	1666157.67	1639087.45	PT	1284.49

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GRADING PLANS FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

GRADING PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1" = 100'

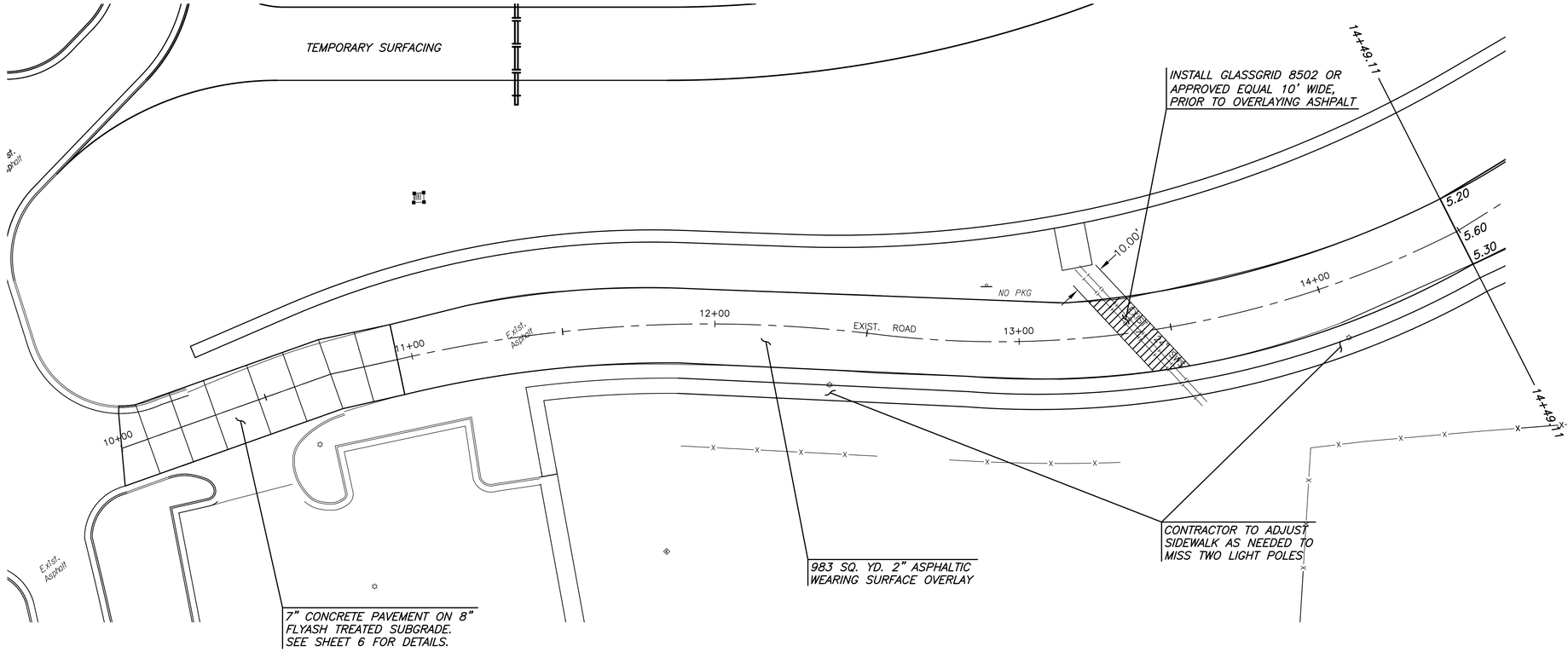
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

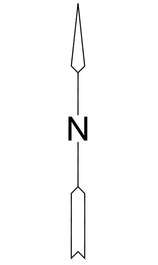
NO.	REVISION	DATE
1	IFC	07,24,14

SHEET NO.
9 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\GRD\1438TGP01.DWG

PLOTTED: Thursday, July 24, 2014 @ 02:21PM





Bryce L. Barkus 7-24-14

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER

MKEC
Wichita, KS • 316-684-9600

PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

PAVING PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=20'

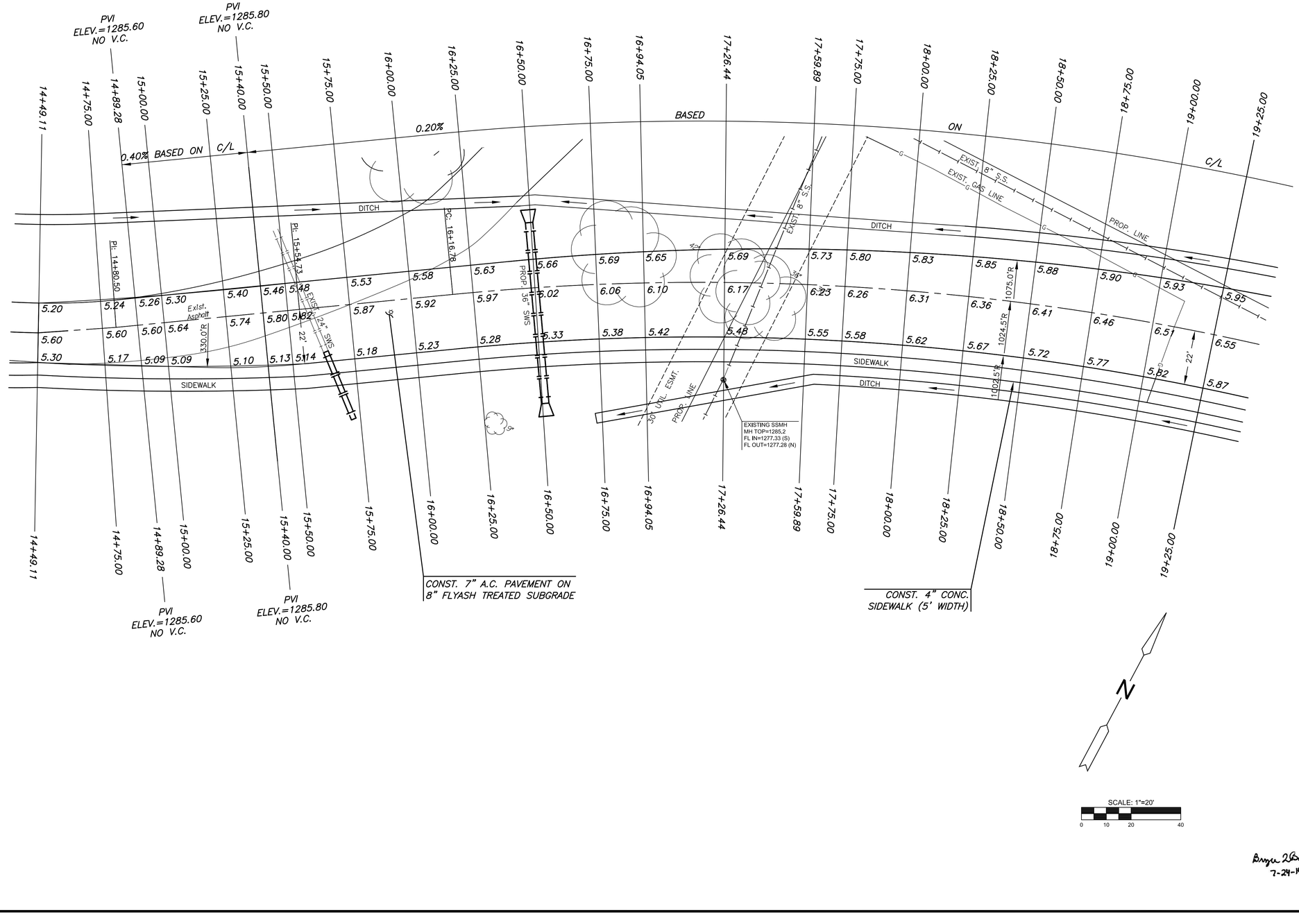
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.

10 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAV\1438T PAVE 1.DWG



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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

PAVING PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=20'

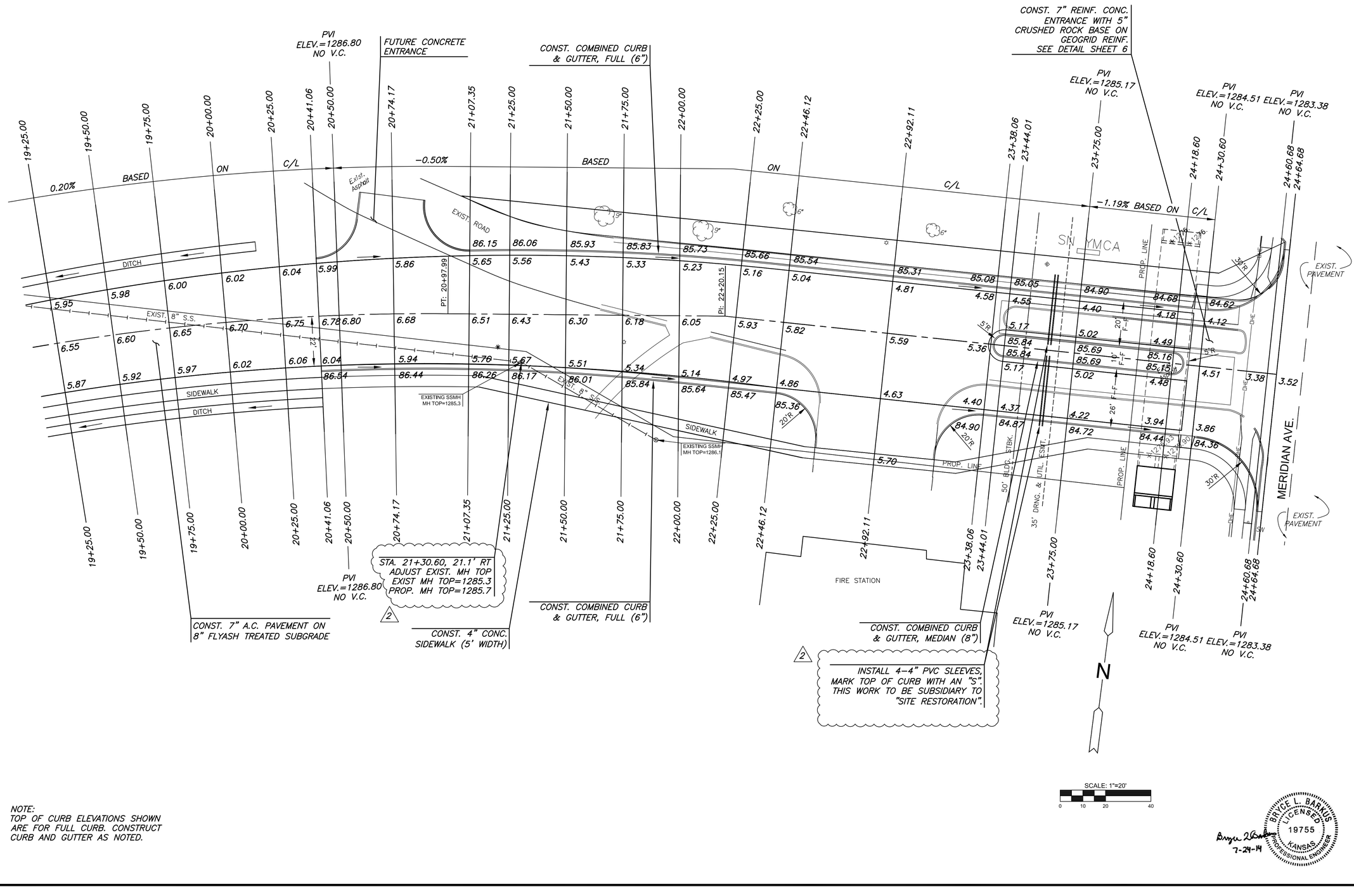
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07,24,14

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

SHEET NO.
11 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAV\1438T PAVE 2.DWG



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

Bryce L. Barkis 7-24-14

BRYCE L. BARKIS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

PAVING PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=20'

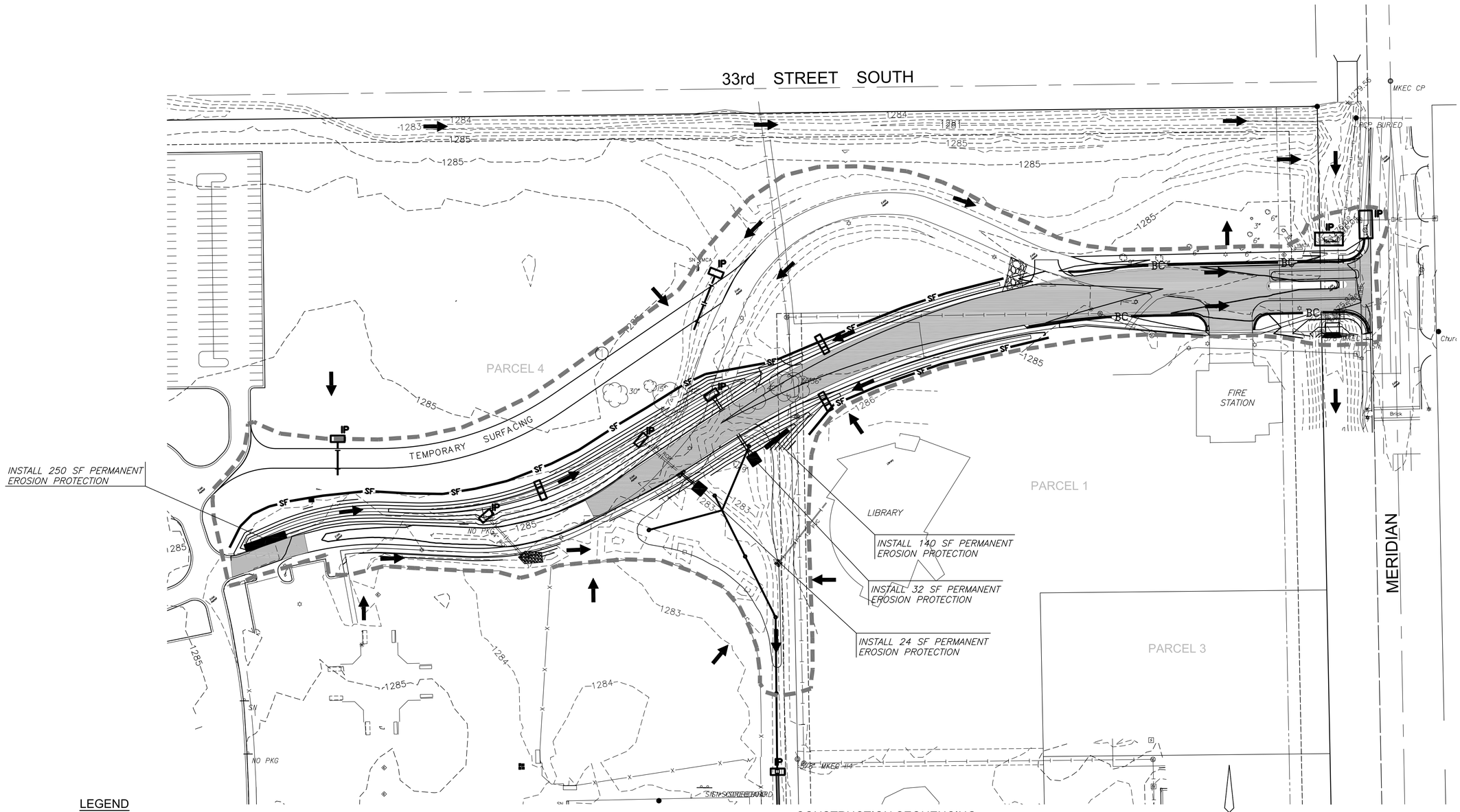
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
2	REVISED	07.25.14
1	IFC	07.24.14

SHEET NO.

12 OF 20

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVI\141387 PAVE 5.DWG



LEGEND

- FLOW ARROW
- BC — BACK OF CURB PROTECTION
- SF — SILT BARRIER FENCE
- CONSTRUCTION LIMITS
- STABILIZED CONSTRUCTION ENTRANCE
- IP — INLET PROTECTION
- PERMANENT EROSION PROTECTION
- DITCH CHECK

EROSION CONTROL

1. IN ORDER TO PREVENT SILT OR SEDIMENT FROM ENTERING DITCHES OR GUTTERS ON ADJACENT STREETS, APPROPRIATE BMP'S SHALL BE IMPLEMENTED WITHIN THE PROJECT.
2. ANY MUD TRACKED ONTO ADJACENT PAVED AREAS OR STREETS SHALL BE REMOVED AT THE END OF EACH WORK DAY.
3. PER THE REQUIREMENTS OF THE NOI/SWPPP, BMP INSPECTION REPORTS SHALL BE COMPLETED BY THE CONTRACTOR WEEKLY AND WITHIN 24 HOURS AFTER A ½" RAIN. REPORTS SHALL BE KEPT WITH THE SWPPP ON SITE.
4. CONTRACTOR SHALL PROVIDE A SIGN NEAR THE ENTRANCE WITH THE FOLLOWING INFORMATION:
   A. CONTACT NAME AND INFORMATION
   B. A COPY OF THE NOI
   C. LOCATION OF SWPPP

CONSTRUCTION SEQUENCING

1. CLEARING/GRUBBING & DEMOLITION - STABILIZED ENTRANCE IMPLEMENTED/SILT BARRIER INSTALLED.
2. TEMPORARY SURFACING
3. GRADING
4. STORM SEWER CONSTRUCTION/INLET PROTECTION IMPLEMENTED
5. PAVING CONSTRUCTION-BACK OF CURB PROTECTION IMPLEMENTED
6. FINAL STABILIZATION/BACK OF CURB PROTECTION REMOVED
7. SILT BARRIER REMOVED
8. STABILIZED ENTRANCE REMOVED

N

SCALE: 1"=60'
0 60 120

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

EROSION CONTROL PLAN

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=60'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
13 OF 20

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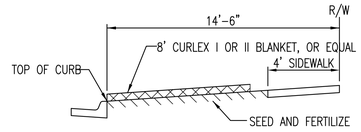
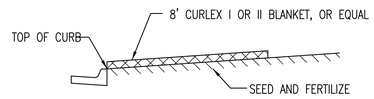
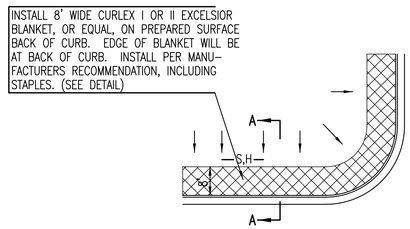


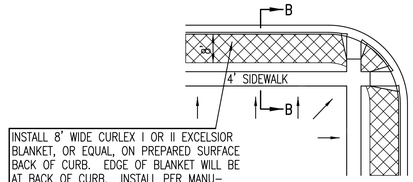
SECTION B-B



SECTION A-A



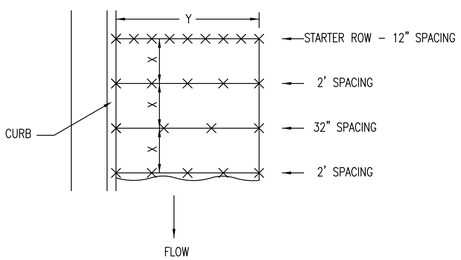
SOUTH STREET



GENERAL NOTES

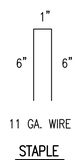
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL



STAPLE PATTERN

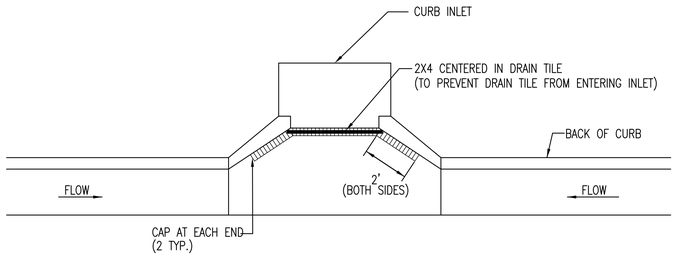
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)



11 GA. WIRE

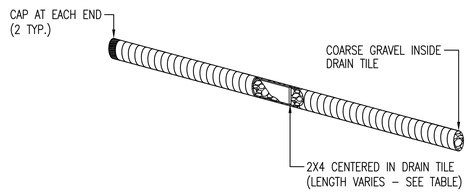
STAPLE

DETAILS FOR APPROVED EROSION CONTROL MAT

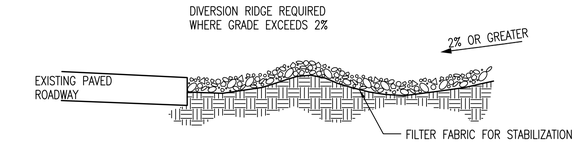


NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

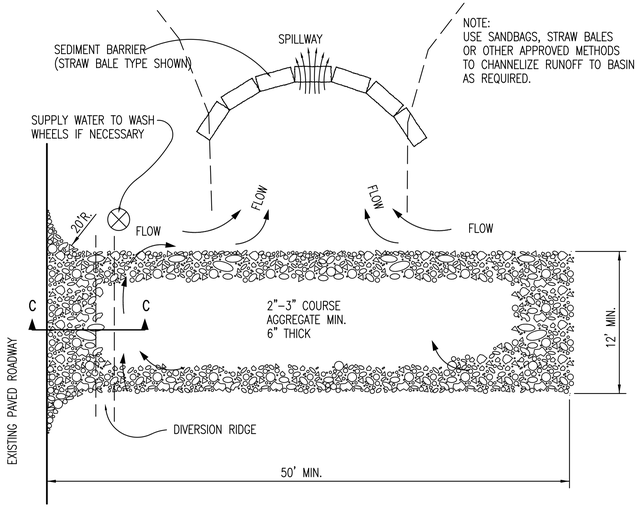
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVX\14387_BMP1.DWG

BMP DETAILS 1

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NO SCALE

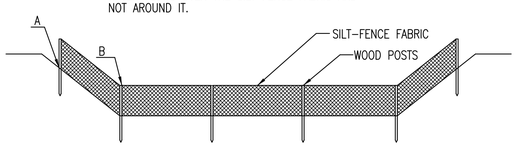
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.

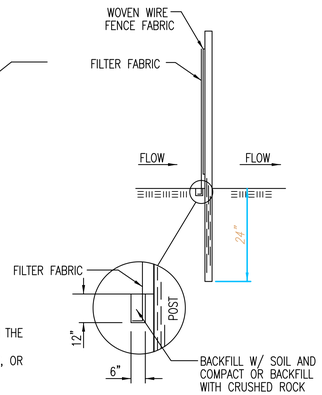
14 OF 20

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE SILT FENCE FABRIC AND NOT AROUND IT.



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

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

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

PROPER INSTALLATION METHOD:

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

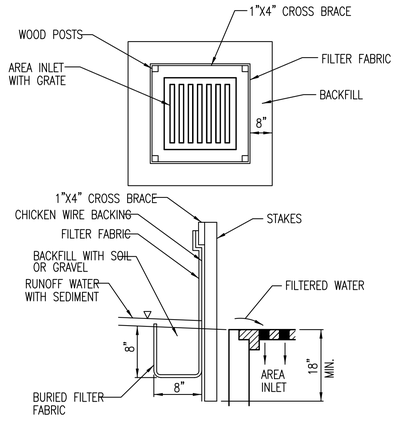
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS.
SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED.
WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME.
WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE.
DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET.
THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM.
CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING.
ATTACH THE WIRE OR POLYMERIC–MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED.
ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

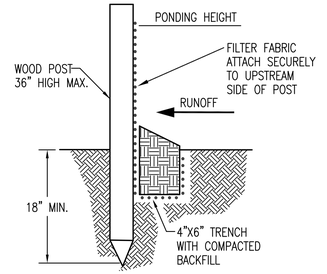
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET–NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS.
THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

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

DOES WATER FLOW UNDER THE SILT FENCE?
DOES THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE.
MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH.
PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT–FENCE FABRIC SHOULD REMAIN EXPOSED.
LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18".
PLACE POSTS NO MORE THAN 4' APART.
ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES.
DO NOT PLACE SILT–FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT.
SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND–SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

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

ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
DOES WATER FLOW UNDER THE SLOPE BARRIER?
DO THE SILT FENCES SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

BMP DETAILS 2

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=20'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07,24,14

SHEET NO.
15 OF 20

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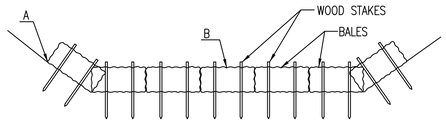
NOTE: POINT A MUST BE HIGHER THAN POINT B
SO THAT WATER FLOWS OVER THE BALES AND
NOT AROUND THEM.



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

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

PROPER INSTALLATION METHOD:

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

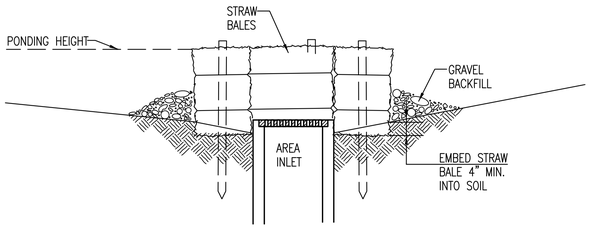
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

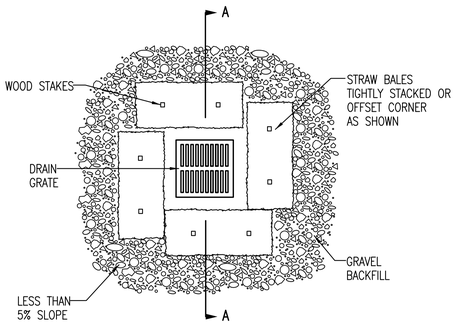
INSPECTION AND MAINTENANCE:

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

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



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

PROPER INSTALLATION METHOD:

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

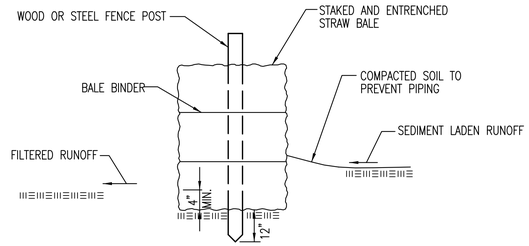
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

BALE AREA INLET BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL 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.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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

Bryce L. Barkus 7-24-14

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVY1438T_BMP3.DWG

BMP DETAILS 3

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NO SCALE

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
16 OF 20

PLOTTED: Thursday, July 24, 2014 @ 02:24PM

GENERAL NOTES

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

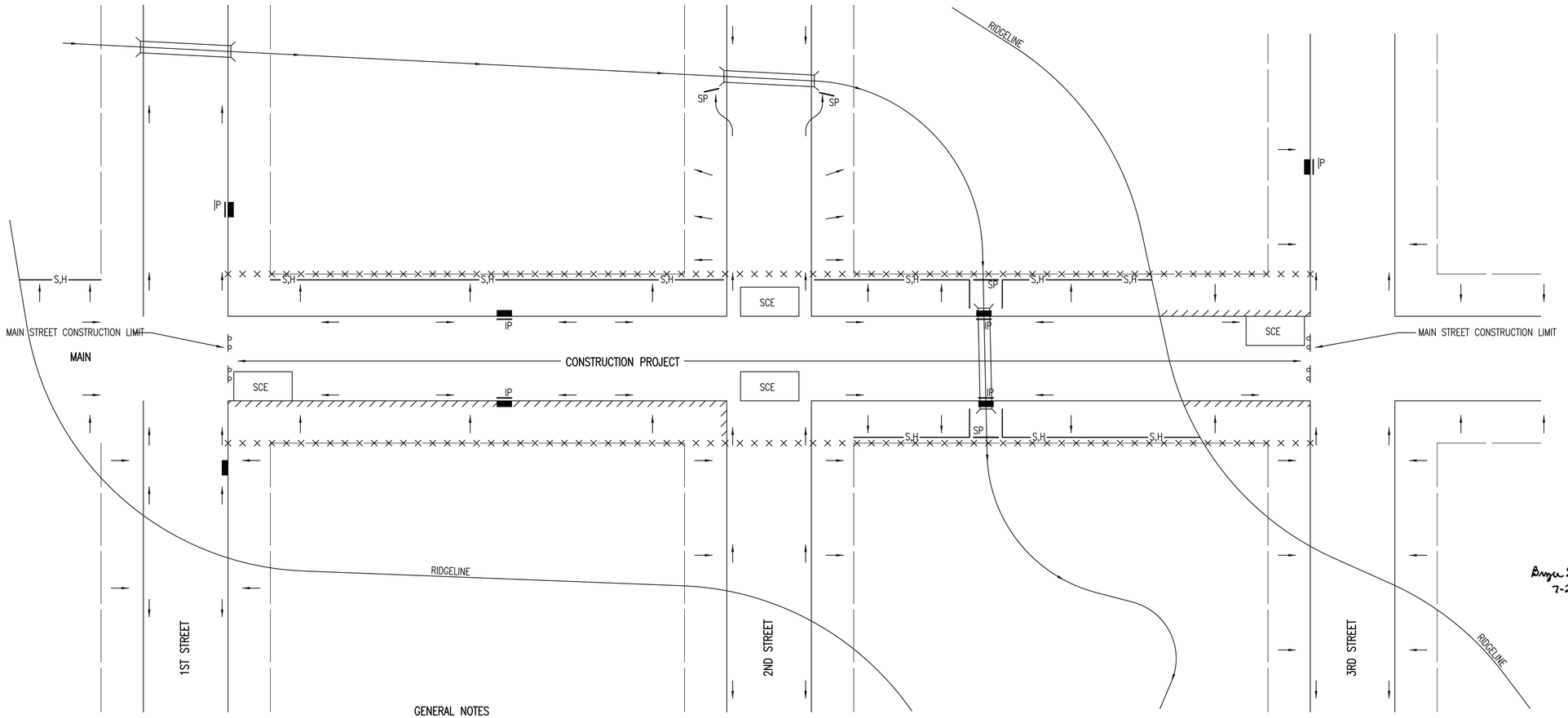
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

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

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

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

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



LEGEND

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

GENERAL NOTES

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

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

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

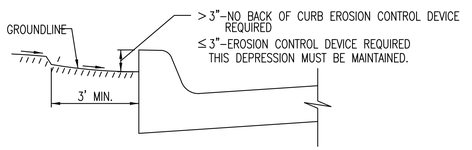
4. INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.

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

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

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

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



CURB BACKFILL DETAIL

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

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
Bryce L Barkus 7-24-14

BMP DETAILS 4

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NO SCALE

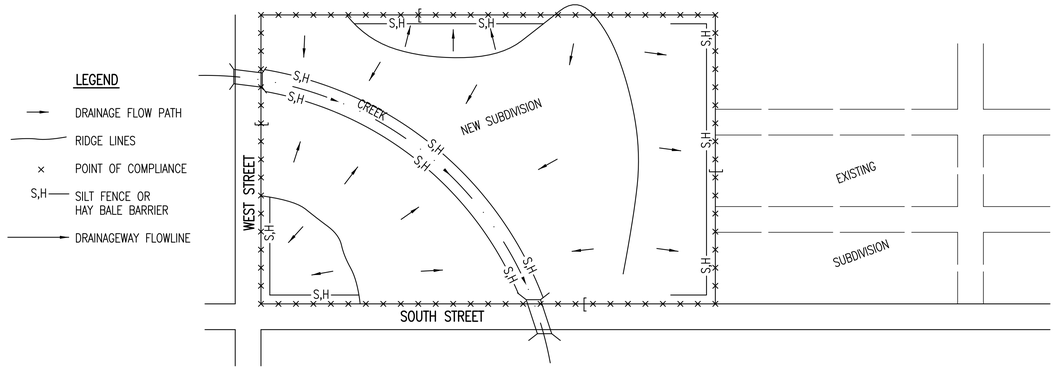
DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.
17 OF 20

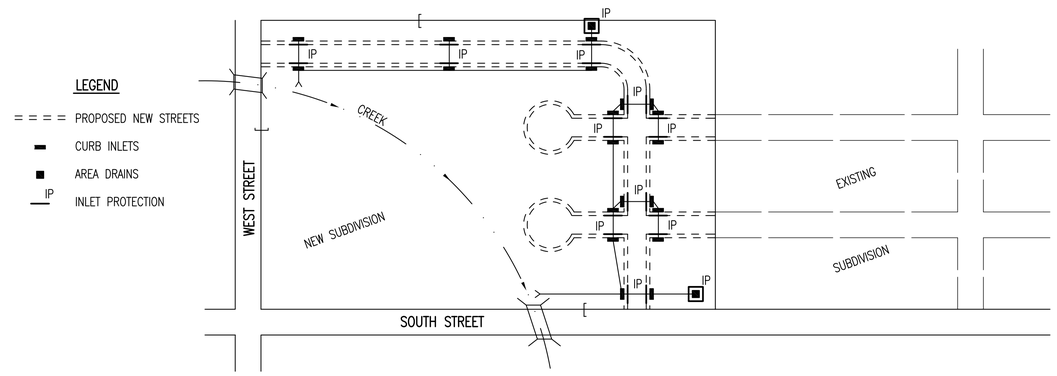
J:\PROJECTS\2014\1401010387_SOUTH YMCA - PRIVATE DRIVE\05-CIVIL\CAD\PAVI\14387_BMP4.DWG

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



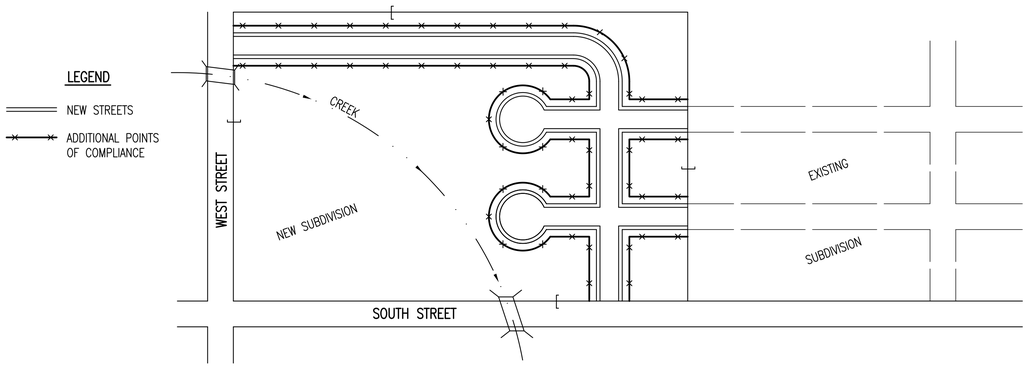
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2.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

PHASE 2 – INSTALLATION OF STORM SEWER



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

PHASE 3 – STREET CONSTRUCTION

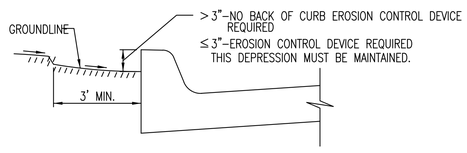


1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION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

GENERAL NOTES

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

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)

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

BRUCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
7-24-14

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PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

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BMP DETAILS 5

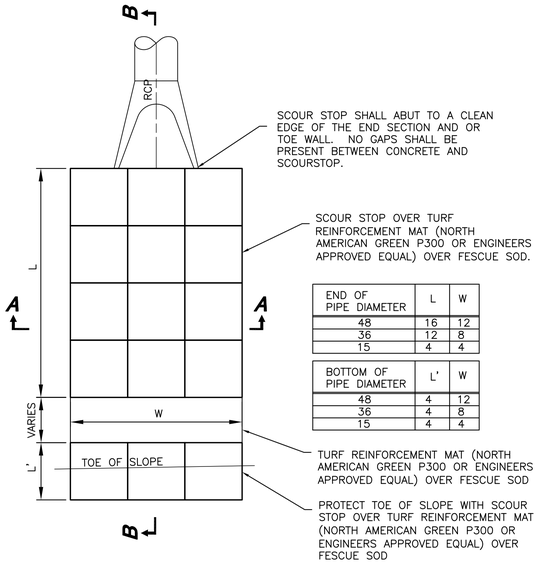
PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NO SCALE

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07,24,14

SHEET NO.

18 OF 20

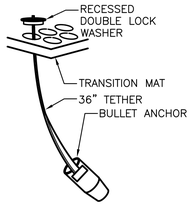


END OF PIPE DIAMETER	L	W
48	16	12
36	12	8
15	4	4

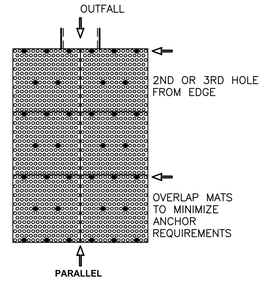
BOTTOM OF PIPE DIAMETER	L'	W
48	4	12
36	4	8
15	4	4

ALTERNATE END SECTION EROSION CONTROL

SCALE: 1=5



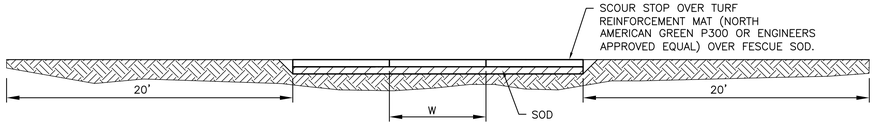
CONTRACTOR SHALL ADD EXTRA ANCHORS IF NECESSARY TO ENSURE CONSISTENT CONTACT WITH SOIL, OR IMPROVE SOIL SURFACE SMOOTHNESS.



POSITION ANCHORS TO SECURE SCOURSTOP MATS FLUSH WITH SOIL SURFACE. MINIMIZE GAPS OR BRIDGING.

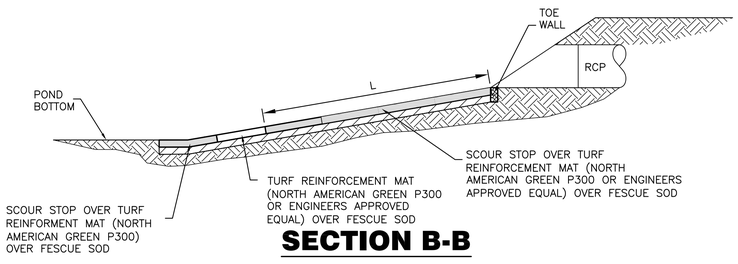
ANCHOR REQUIREMENTS*:
FIRST ROW OF SCOURSTOP MATS
– MINIMUM OF 8 ANCHORS
SECOND ROW OF SCOURSTOP MATS
– MINIMUM OF 5 ANCHORS

*TO ACHIEVE CONSISTENT CONTACT WITH THE SOIL, EXCEED THE MINIMUM ANCHOR REQUIREMENT AT INSTALLATION.



SECTION A-A

SCALE: 1=5

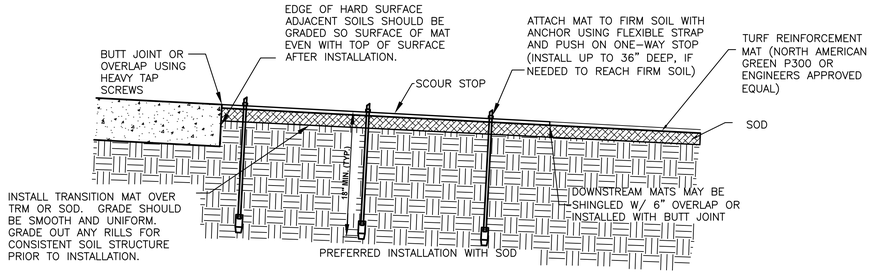


SECTION B-B

SCALE: 1=5

NOTES:

1. ALL RIP–RAP MATERIALS INSTALLED SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.
2. SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR. WITH MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH A MANUFACTURES REPRESENTATIVE ON SITE.
3. ALL TURF REINFORCEMENT MAT (TRM) SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. FESCUE SOD SHALL BE "KANSAS PREMIUM BLEND FESCUE"
5. ALL SOD SHALL BE WATERED AS NEEDED UNTIL SOD IS ESTABLISHED. COST SUBSIDIARY TO THE PROJECT.



Bryce L. Barkus 7-24-14

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER

MKEC
Wichita, KS • 316-684-9600

PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

SCOUR STOP DETAILS

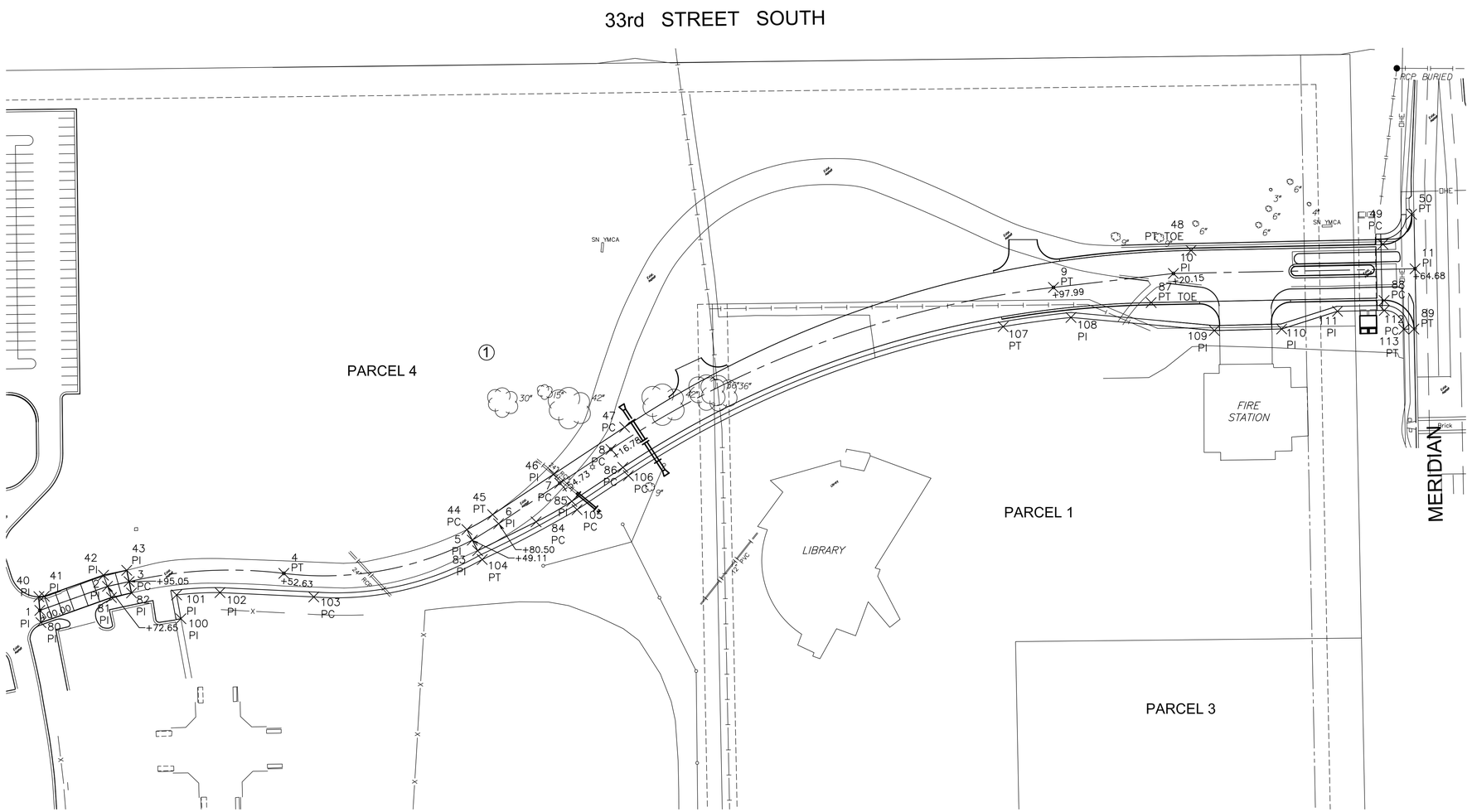
PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	NTS

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07,24,14

SHEET NO.

19 OF 20



PAVING POINTS			
Point #	Northing	Easting	Desc.
1	1665876.39	1638111.83	PI
2	1665900.74	1638180.28	PI
3	1665905.52	1638202.17	PC
4	1665913.86	1638358.71	PT
5	1665947.50	1638549.35	PI
6	1665964.13	1638575.98	PI
7	1666005.16	1638637.85	PC
8	1666039.45	1638689.55	PC
9	1666203.27	1639137.32	PT
10	1666217.40	1639258.67	PI
11	1666222.18	1639503.15	PI
40	1665890.31	1638110.84	PI
41	1665890.74	1638116.35	PI
42	1665912.04	1638176.26	PI
43	1665916.99	1638199.75	PI
44	1665958.20	1638543.92	PC
45	1665973.30	1638569.90	PT
46	1666014.33	1638631.77	PI
47	1666061.85	1638703.43	PC
48	1666240.75	1639276.52	PT TOE
49	1666247.05	1639470.62	PC
50	1666277.25	1639499.53	PT
80	1665864.05	1638112.94	PI
81	1665889.43	1638184.30	PI
82	1665894.05	1638204.59	PI
83	1665936.80	1638554.79	PI
84	1665966.03	1638613.90	PC
85	1665986.82	1638650.01	PI
86	1666021.11	1638701.71	PC
87	1666187.95	1639236.16	PT TOE
88	1666190.06	1639471.82	PC
89	1666161.15	1639501.89	PT

SIDEWALK POINTS			
Point #	Northing	Easting	Desc.
100	1665867.99	1638254.56	PI
101	1665892.07	1638250.16	PI
102	1665894.43	1638294.10	PI
103	1665890.02	1638388.99	PC
104	1665927.90	1638559.36	PT
105	1665978.34	1638655.31	PC
106	1666012.78	1638707.24	PC
107	1666163.59	1639086.42	PT
108	1666172.89	1639155.02	PI
109	1666159.68	1639300.08	PI
110	1666161.23	1639368.17	PI
111	1666179.14	1639424.69	PI
112	1666180.07	1639472.02	PC
113	1666160.95	1639491.89	PT

BRYCE L. BARKUS LICENSED 19755 KANSAS PROFESSIONAL ENGINEER
Bryce L Barkus 7-24-14

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

MKEC
Wichita, KS • 316-684-9600

PAVING & INCIDENTAL DRAINAGE FOR

SOUTH YMCA - PRIVATE DRIVE

WICHITA, KS

BUBBLE MAP

PROJECT NO.	1401010387
DATE	JULY 2014
SCALE	1"=60'

DESIGNED	DRAWN	CHECKED
BLB	BKS	BLB

NO.	REVISION	DATE
1	IFC	07.24.14

SHEET NO.

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