

**GENERAL NOTES:**

- USGS Datum.
- Unless shown or stated otherwise on these drawings, materials and construction shall be in accordance with City of Wichita Standard Specifications.
- 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  
 The Contractor must notify the following in case of an emergency:  
 AT&T (Telephone) 800-870-8390  
 Cox Communications (Cable) 262-0661  
 Kansas Gas Service (Gas) 832-3101  
 City of Wichita Water & Sewer 262-6000  
 Westar (Electric) 281-6512  
 Black Hills Energy (Gas) 800-303-0357
- 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 law.
- 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 companies and is either from company utility drawings or company provided field locations. The plan locations shown are not guaranteed. Additional existing utilities may also be encountered. Contractor to field verify location and depth of all utilities prior to construction and report findings to project engineer.
- Rubble from the removal of miscellaneous structures shall be disposed of on sites to be provided by the contractor. These sites shall be approved by the engineer as to suitability, appearance, and site location. Locations that, in the opinion of the engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture Permit. Any material dumped in Waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archeological investigations unless buried in a previously approved borrow location.
- Excess excavation shall be placed as compacted fill on the NoMar Self Storage Property as directed by the Engineer or Owner.
- Contractor shall provide temporary sediment control at all inlets. Such control shall be maintained until and upon germination of seeding. Acceptable means of control shall be approved by the engineer. Cost shall be considered subsidiary to site clearing and restoration. (Refer to erosion control sheet for measures).
- Equipment and construction materials shall remain out of and away from tree driplines so as not to compact the root zone or damage the tree.
- Any tree that must have branches removed shall be trimmed with a sharp instrument/tool that is intended for such operations. Knocking branches off with a backhoe or other similar machine is not acceptable. Refer to the detail for tree trimming procedure.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Any work done without inspection will be required to be uncovered for inspection.
- The contractor will be required to restore all ditches, swales, road shoulders, entrances and bank lines to their original slopes and grades except as shown otherwise.
- Construction staking and inspection will be provided by the Owner.
- The Contractor will be responsible for testing.

**LEGAL DESCRIPTION:**

Lots 33, 35, 37, 39 and 41-48 Garland Brook Addition, to Wichita, Sedgwick County, Kansas.

**BENCHMARKS:**

1. "1" cut on top of curb at south curb return south side entrance onto Market Street. Elev.=1312.46 (NAVD88)
2. "1" cut on top of curb at east curb return on northeast corner 24th Street North and Park Place. Elev.=1312.15 (NAVD88)

# CONSTRUCTION PLAN FOR PRIVATE STORM SEWER IMPROVEMENTS

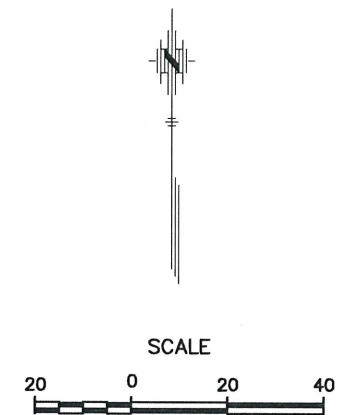
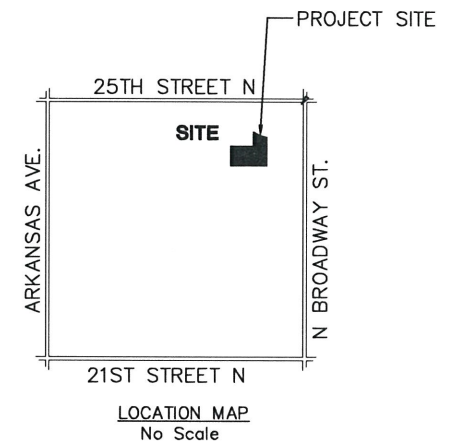
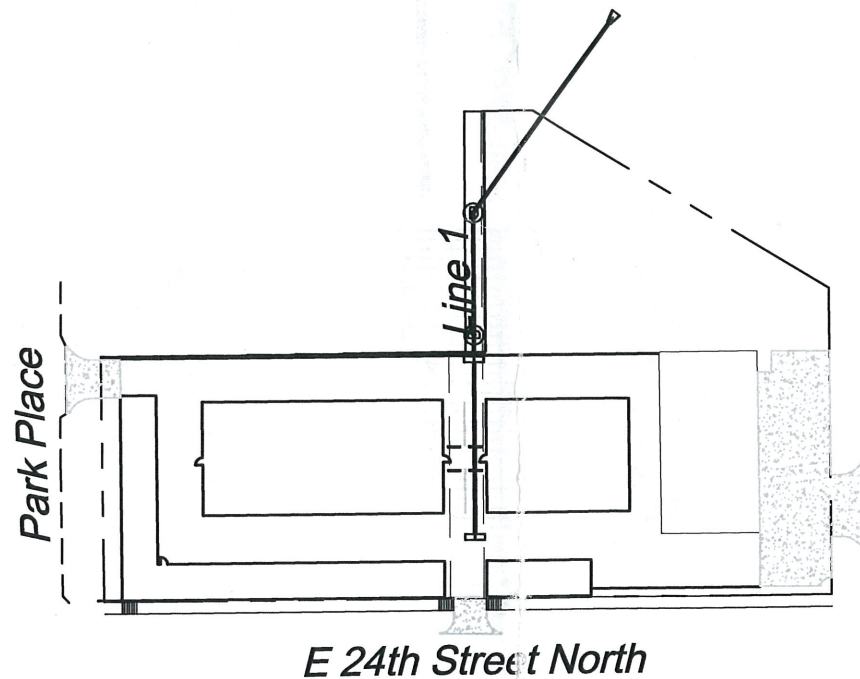
## NOMAR SELF STORAGE

TO

# THE CITY OF WICHITA, KANSAS

## JAMES ARMOUR, P.E. - CITY ENGINEER

0047 PPD OCA NO. 607861



**SHEET INDEX**

TITLE SHEET	SHEET NO. 1
STORM SEWER PLAN AND PROFILE	SHEET NO. 2
STORM SEWER DETAILS	SHEET NO. 3-4
EROSION CONTROL	SHEET NO. 5
BMP DETAILS	SHEET NO. 6-11
FINAL PLAN	SHEET NO. 12

As Built Plans  
 Contractor: CK Contracting  
 Inspector: Scott Servis, Poe & Associates, Inc.  
 .pdf by: SRS, 5-30-12  
 Built to Plans

SEPTEMBER 2011  
 PLANS PREPARED BY

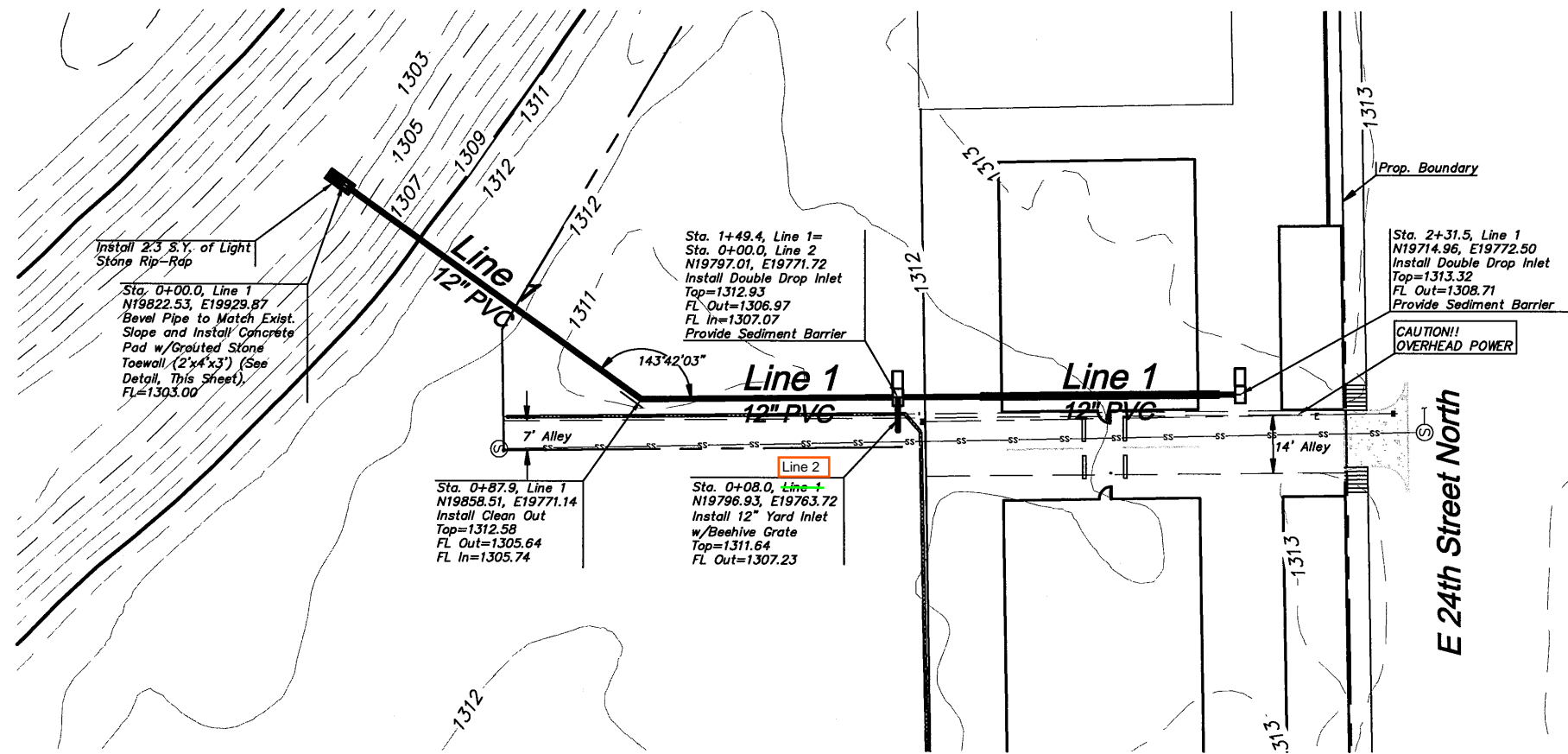


POE & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 5940 E. Central, Suite 200 ■ Wichita, KS 67208-4242  
 Phone 316/385-4114 ■ FAX 316/685-4444



APPROVED AS NOTED BY CITY ENGINEER OF WICHITA  
 Storm Sewer *Johanne Kallman* 9-14-11

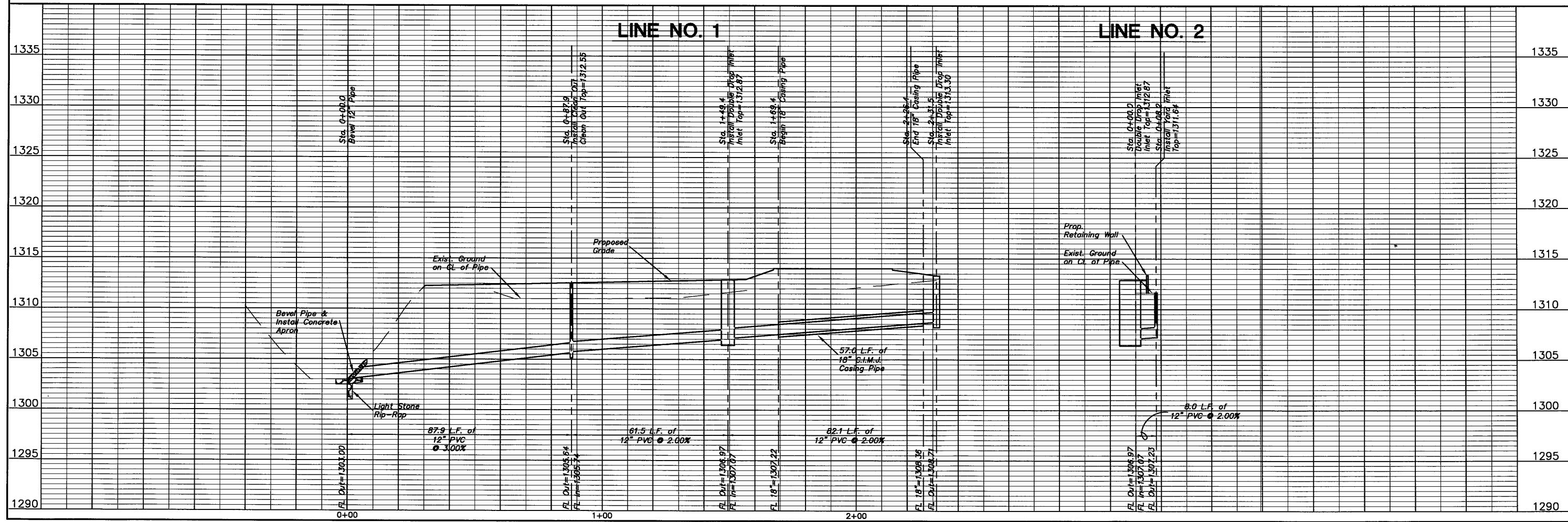
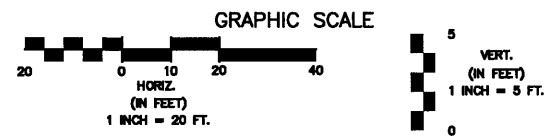
**NOTE TO CONTRACTORS**  
 Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection is to be in accordance with the City of Wichita standard construction engineering practices and certified 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).



**RECORD DRAWINGS**  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12

- NOTES:**
- Contractor to Field Verify location and Depth of All Utilities Prior to Construction and Report Findings to Project Engineer.
  - All storm sewer shown on this sheet shall be privately owned and maintained.

Remove Trees Only as Needed for Construction. Cost Shall be Subsidiary to Site Clearing.



By: Approved  
Date: \_\_\_\_\_  
No. \_\_\_\_\_

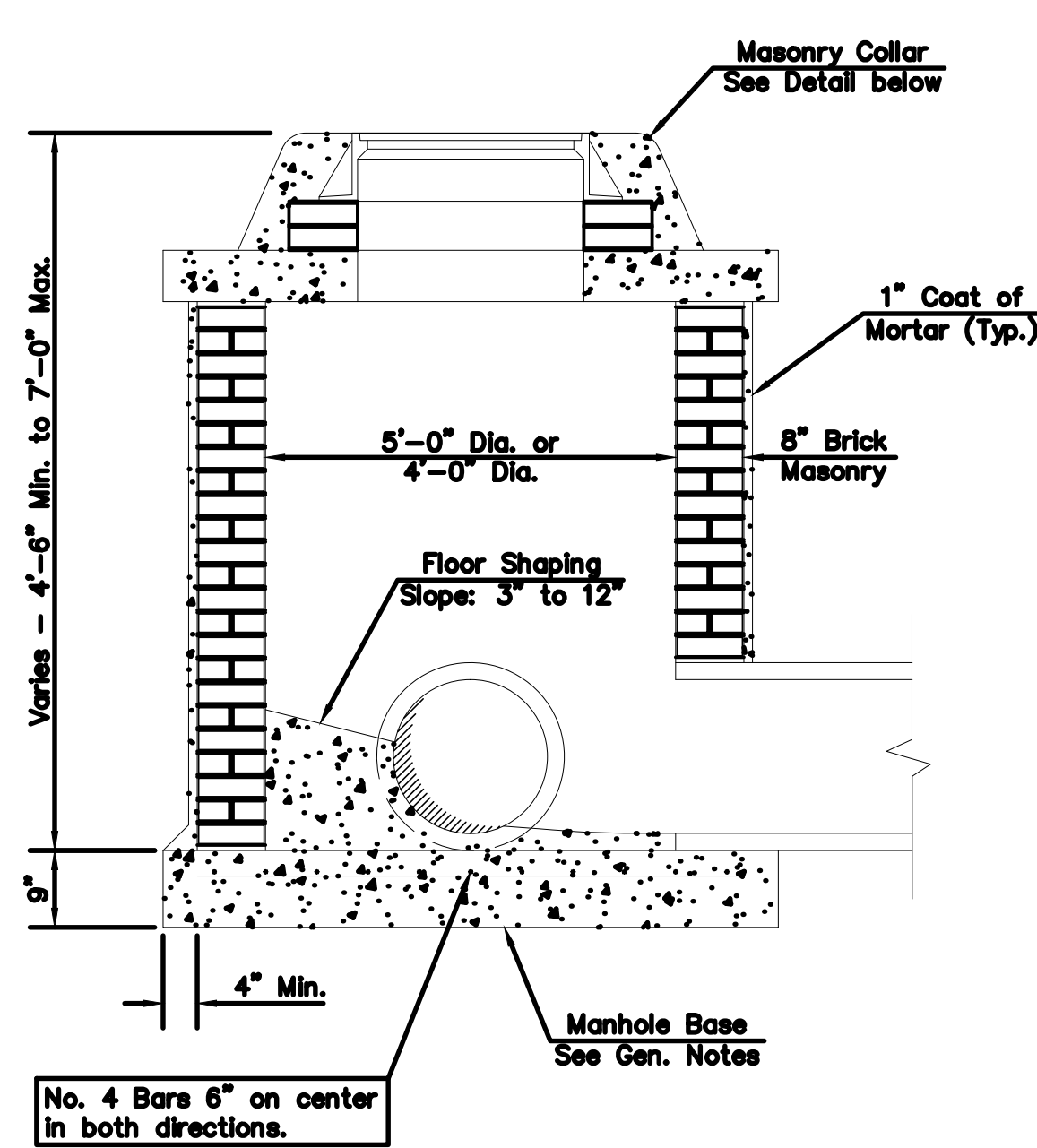
**NOMAR SELF STORAGE**  
 PRIVATE SEWER PLANS  
 LINE 1 PLAN AND PROFILE  
**CITY OF WICHITA, KANSAS**  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER  
 0047 PPD (607861)

**POE & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 5940 E. Central, Suite 200 □ Wichita, KS  
 67206-6242  
 Phone 316/665-4114 □ FAX 316/665-4444

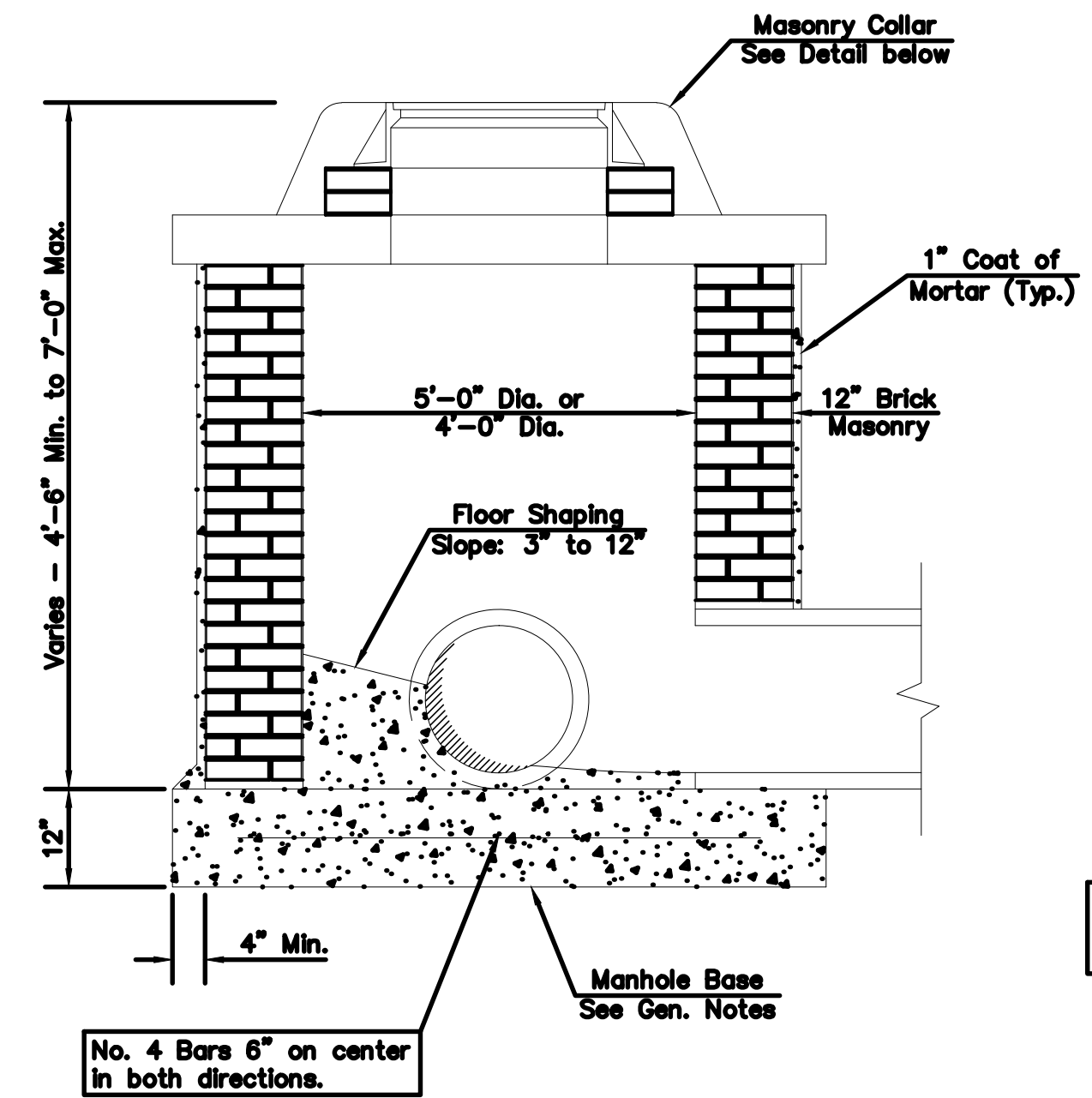
**FINAL**

Engineer: S. SERVIS  
 Designer: S. SERVIS  
 Drawing: P:\1108P\Nomar Self Storage\916base10-11-11.dwg  
 Date: 10/11/2011

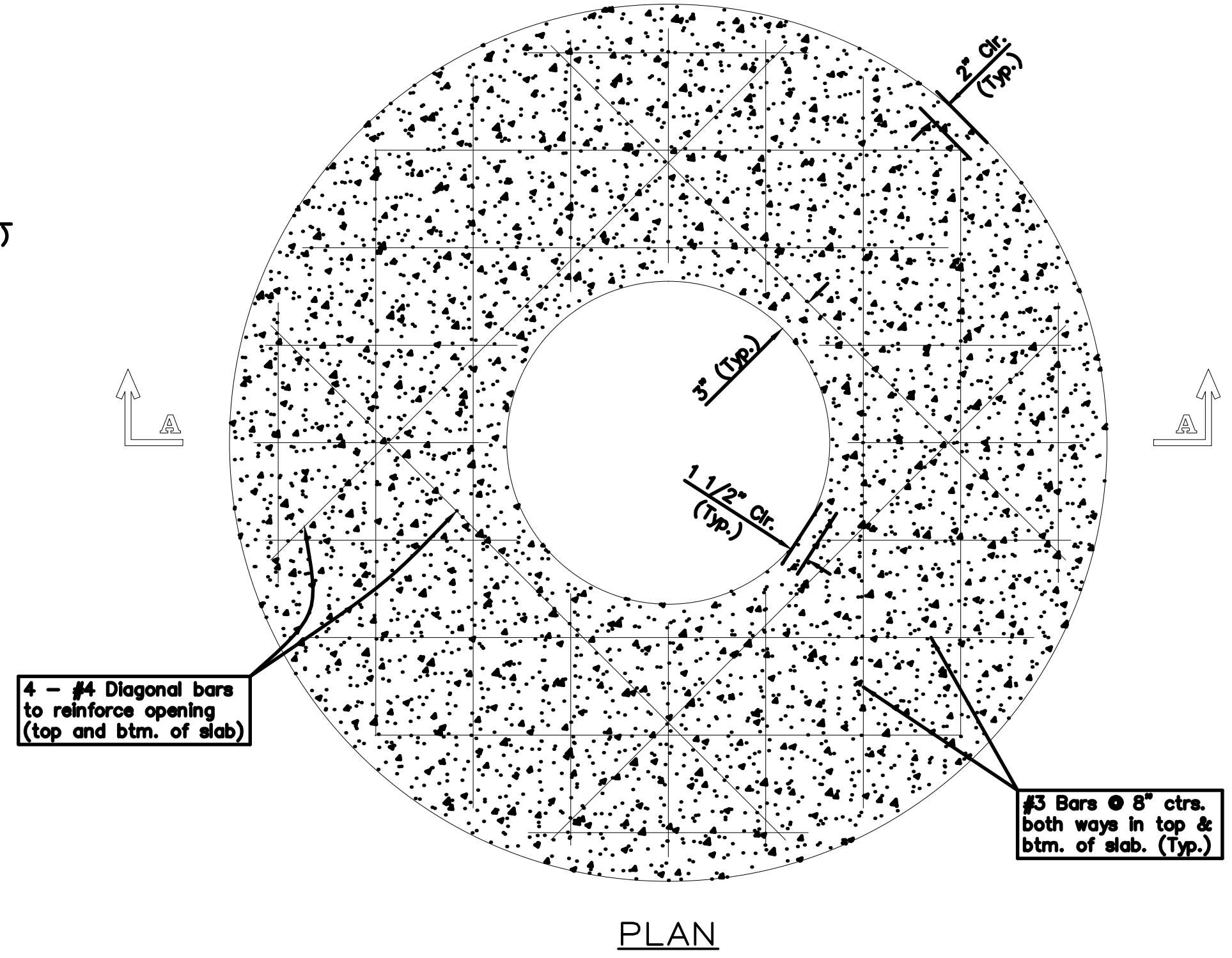
Sheet  
2 of 12



SHALLOW TYPE "A" MANHOLE

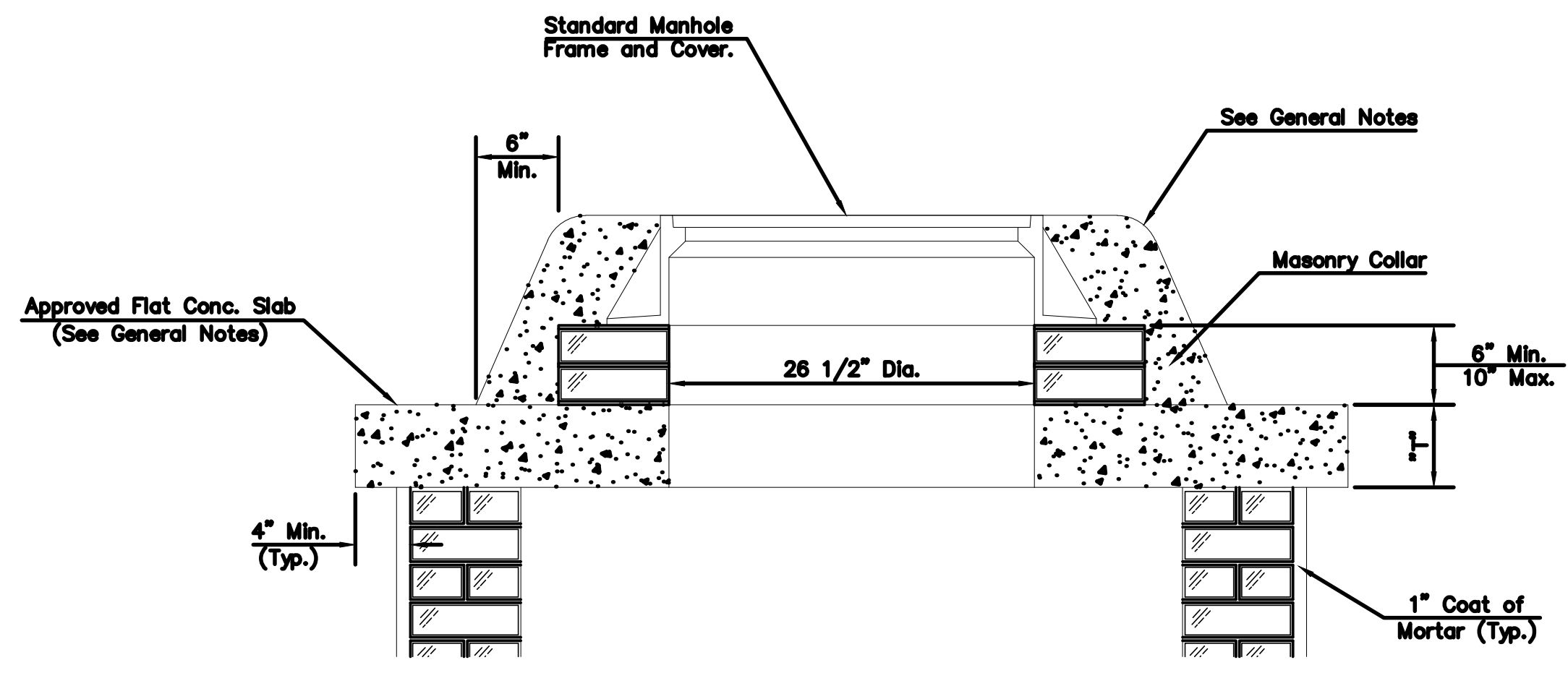


SHALLOW TYPE "B" MANHOLE

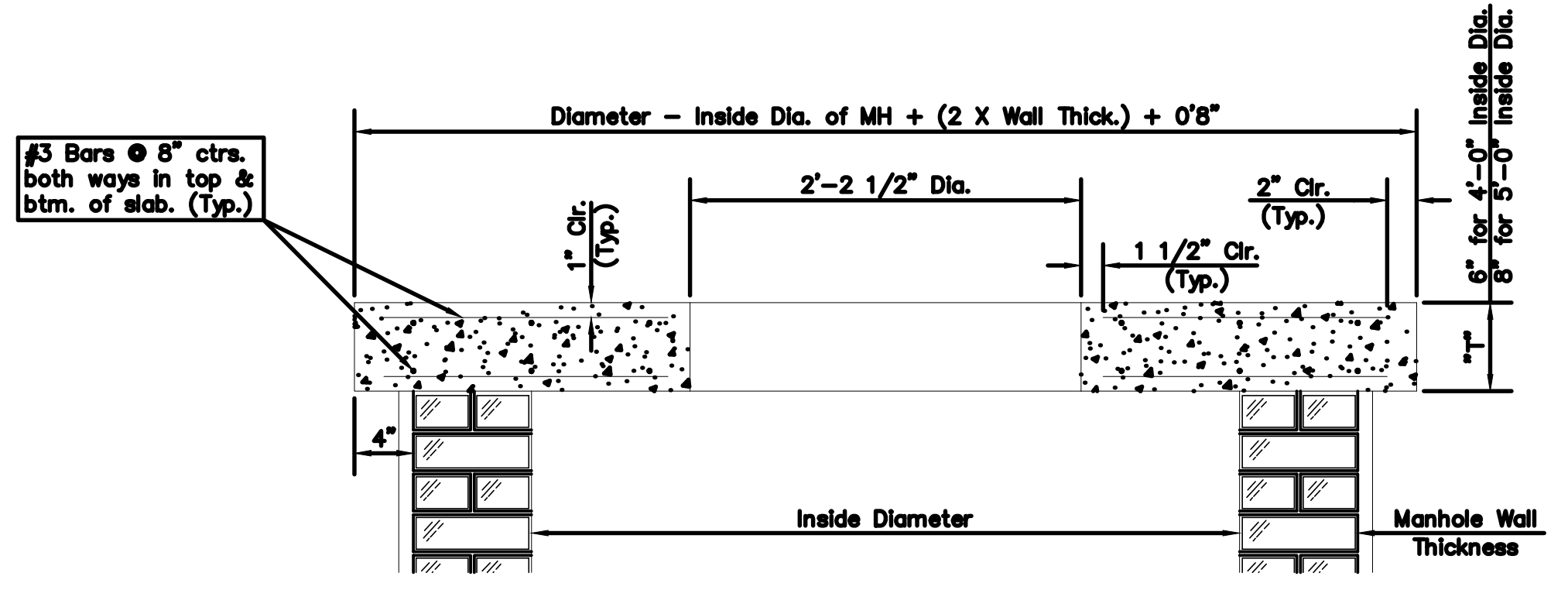


PLAN

- GENERAL NOTES**
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4'. Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5'. Completed manhole shall be without leaks and water tight.
  - Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
  - The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
  - Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
  - Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
  - The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
  - Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
  - All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

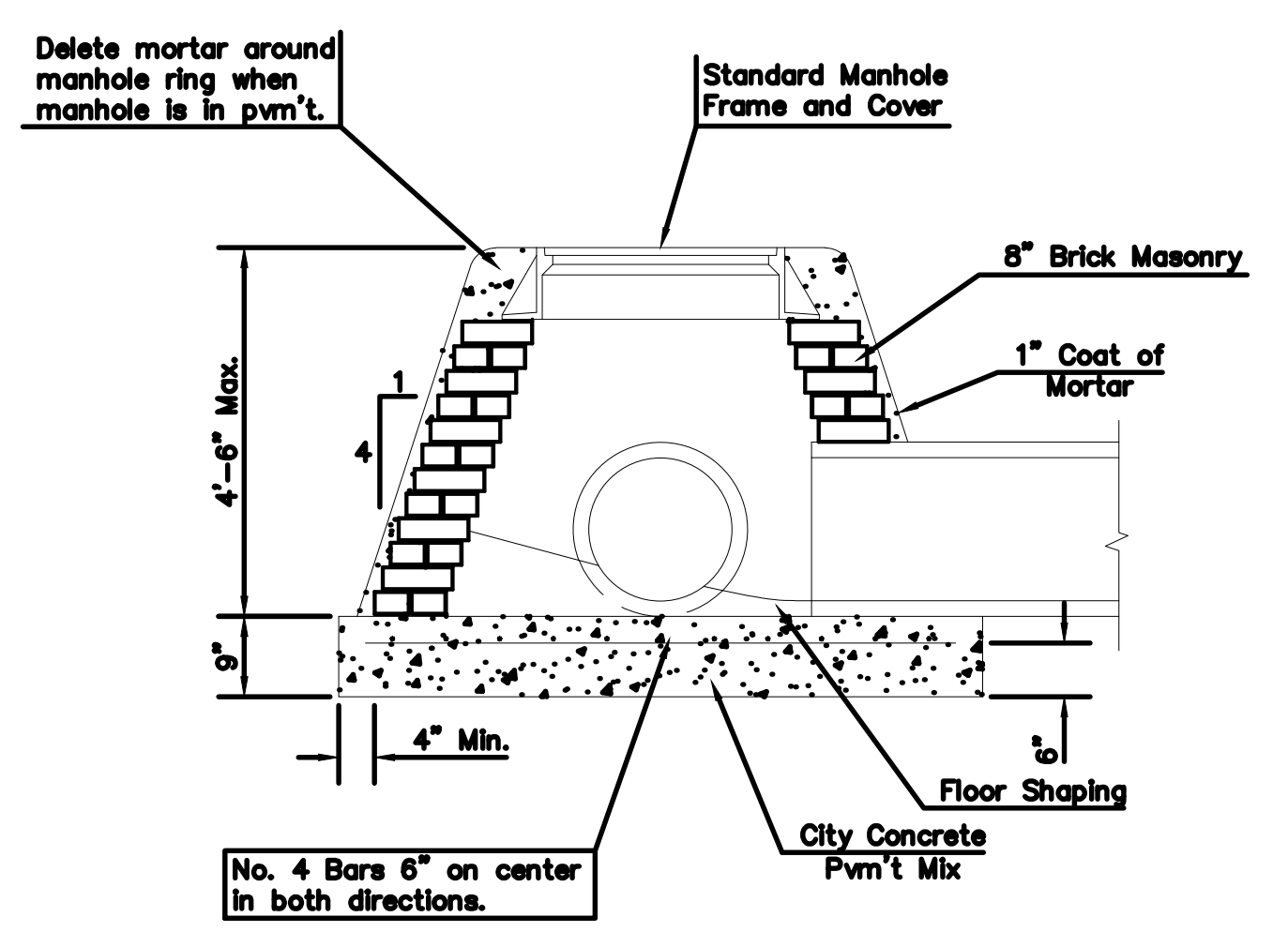


MASONRY COLLAR DETAIL

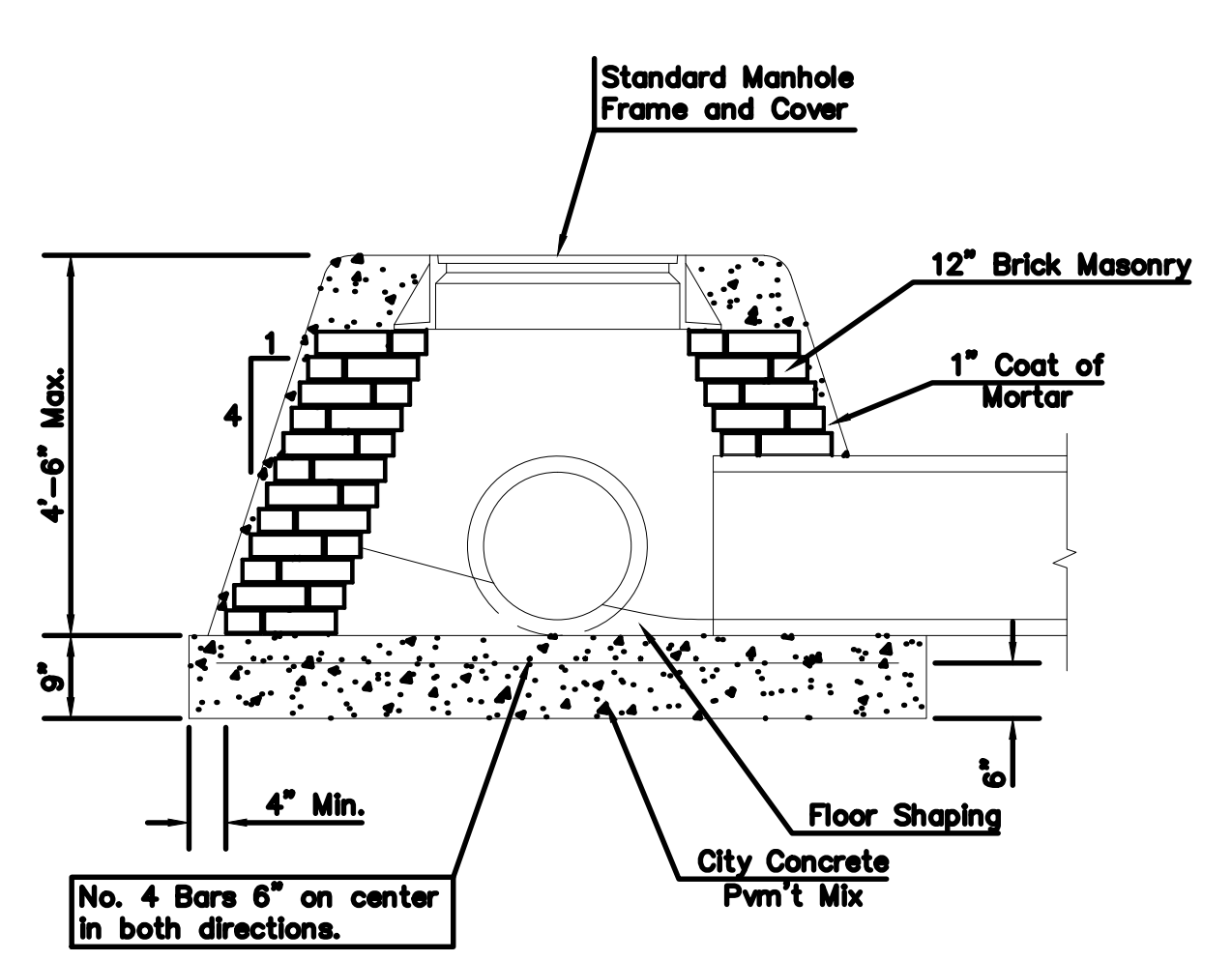


SECTION A-A

FLAT CONCRETE SLAB DETAILS

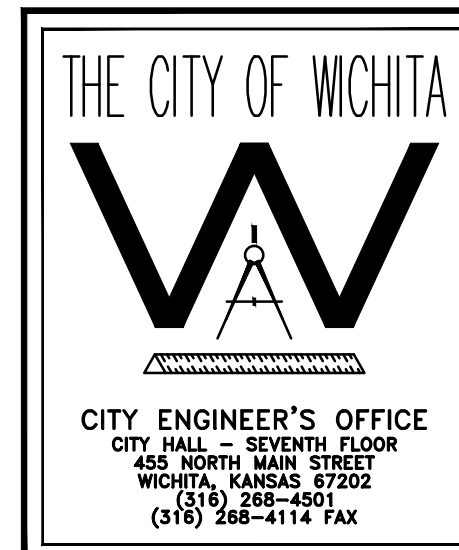


SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

**RECORD DRAWINGS**  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12



<b>STANDARD/SPECIAL SHALLOW MANHOLES TYPE 'A' &amp; 'B'</b>	
M. E. LINDEBAK P.E. - CITY ENGINEER	
PROJECT NUMBER XXX-XXXX	INDEX CODE XXXXXX
DATE MAR 96	SHEET X OF X

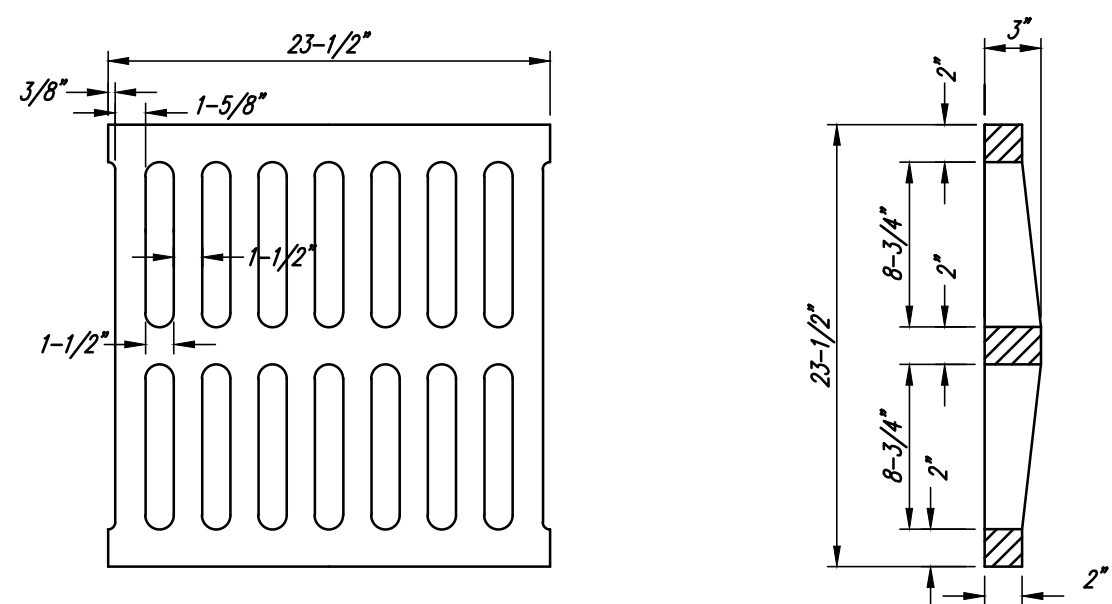
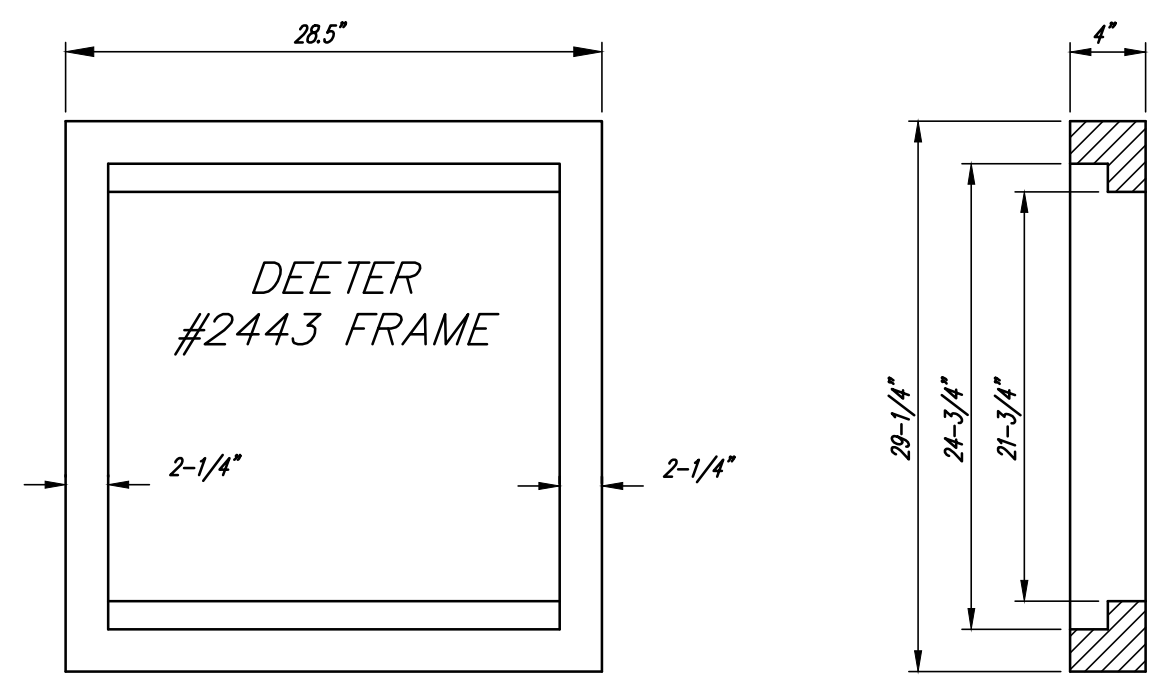
NOMAR SELF STORAGE SHALLOW MANHOLE DETAILS  
 CITY OF WICHITA, KANSAS  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER  
 0047 PFD (607861)

POE & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 5940 E. Central, Suite 200 □ Wichita, KS 67208-0242  
 Phone 316/685-4114 □ FAX 316/685-4444

**FINAL**

Engineer: S. SERVIS  
 Designer: S. SERVIS  
 Drawing: P:\1109P\NoMar Self Storage\sitebase.dwg  
 Date: SEPTEMBER 2011

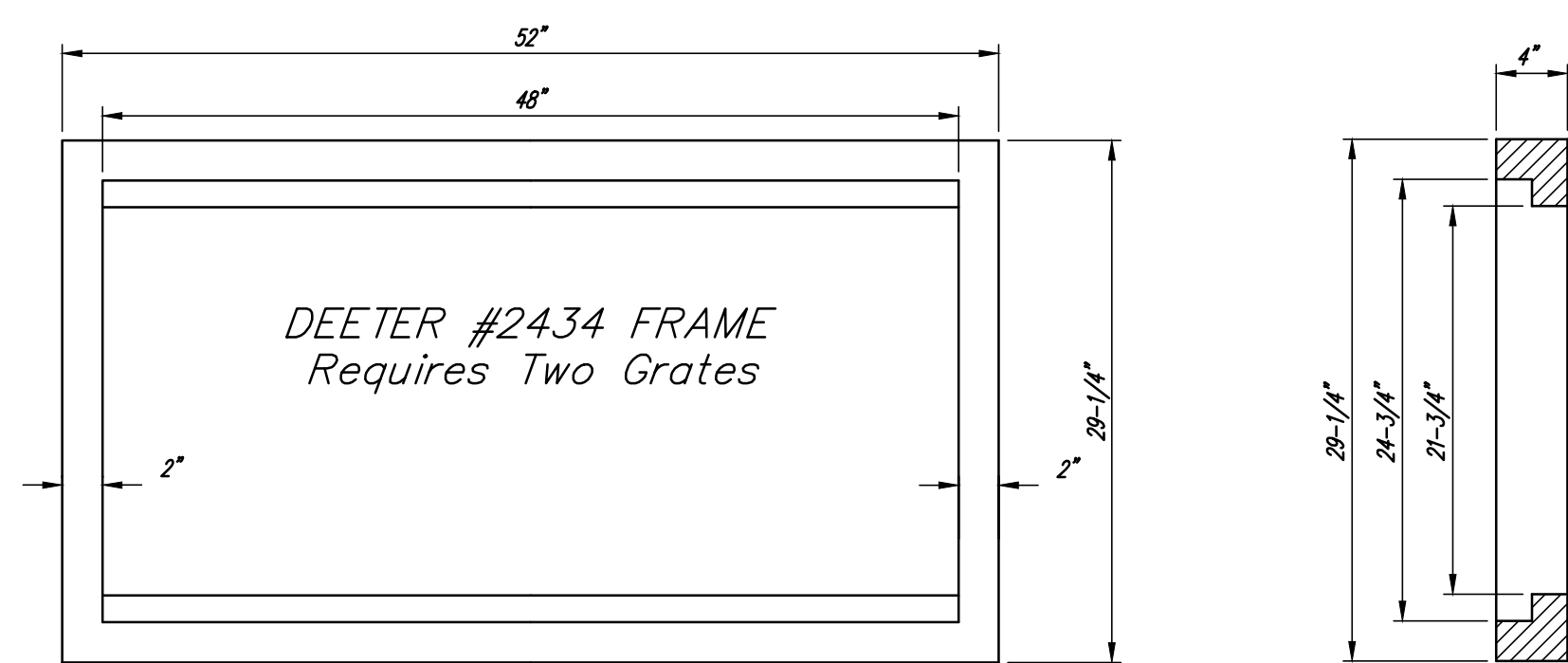
Sheet 3 of 12



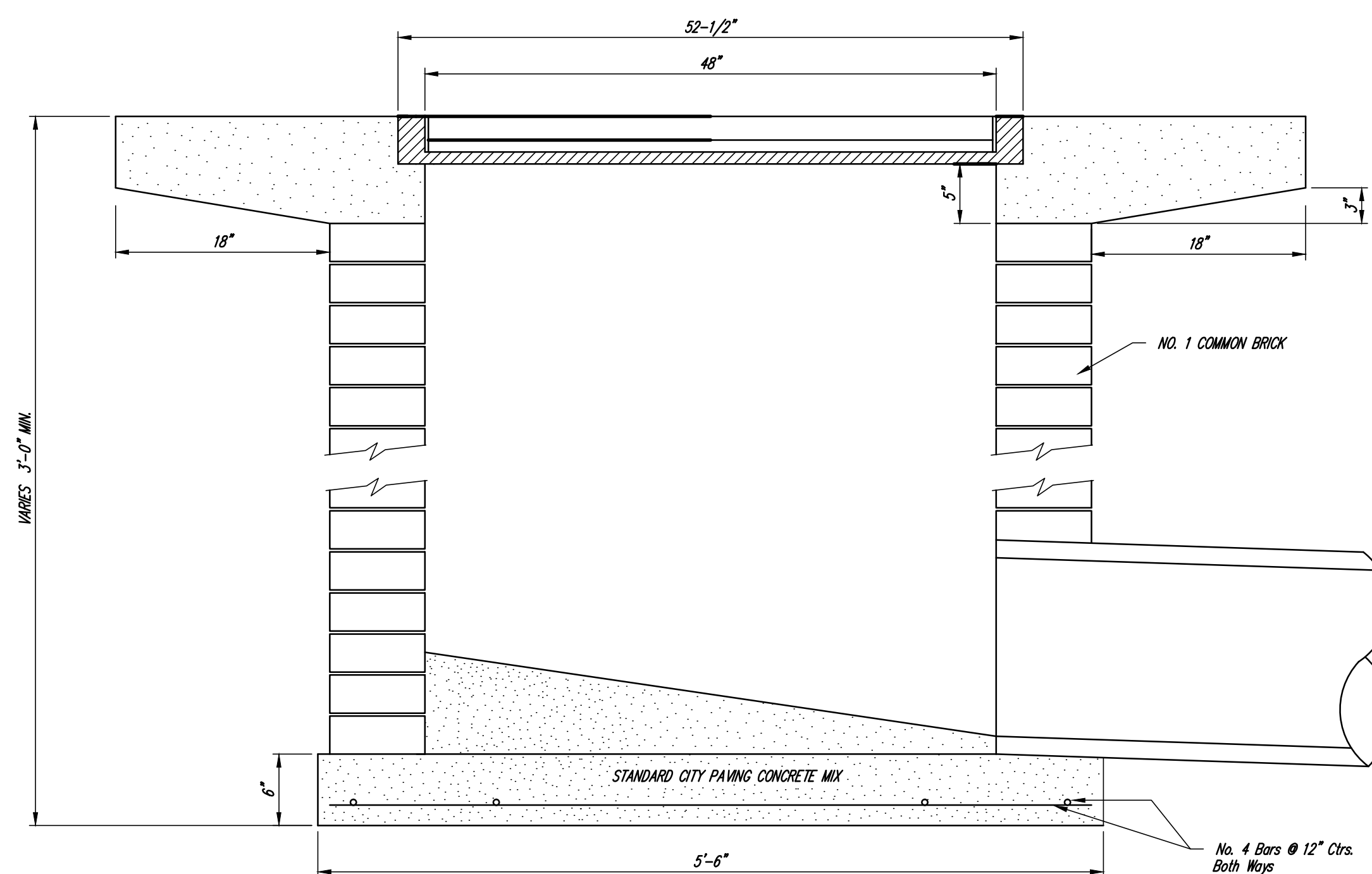
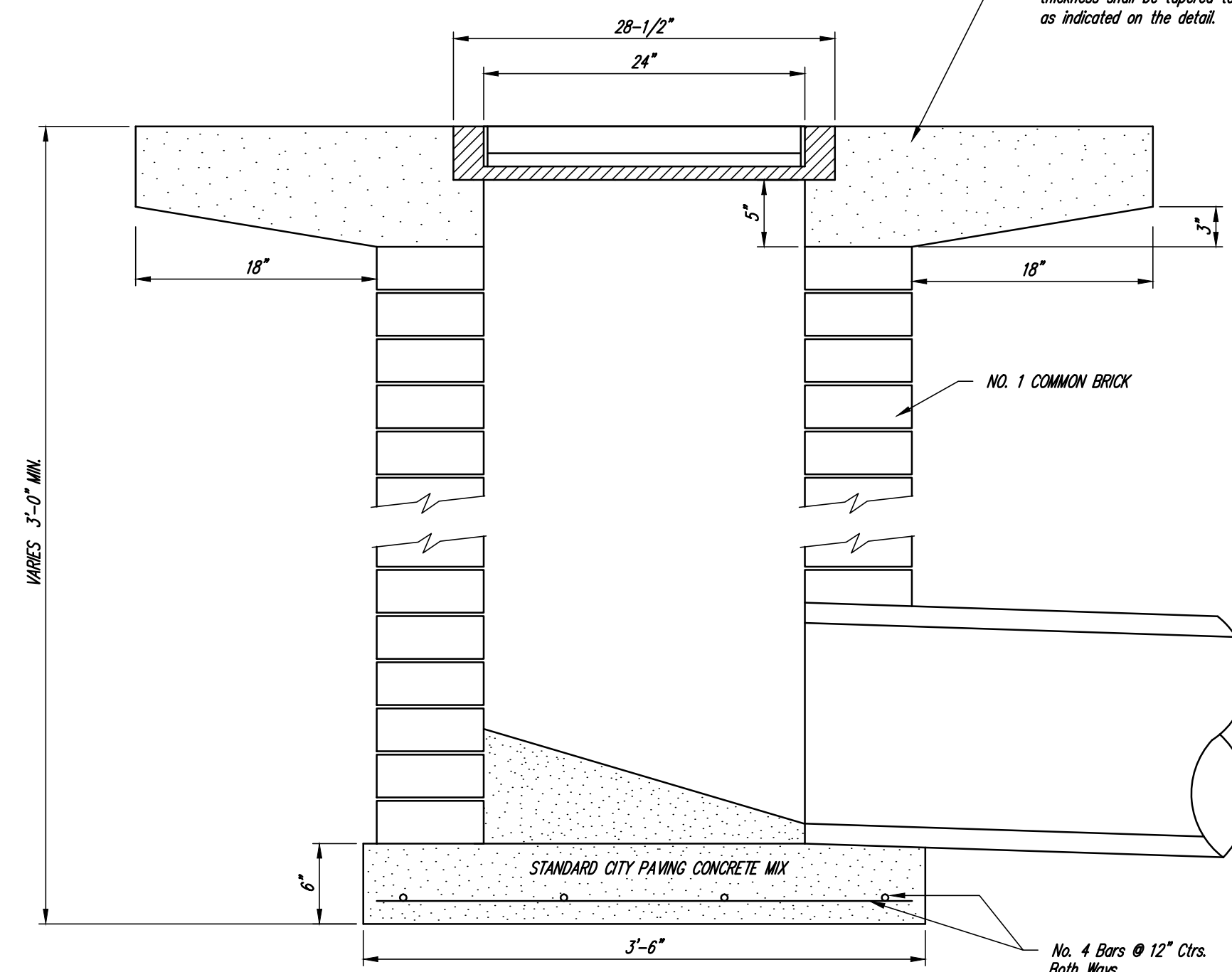
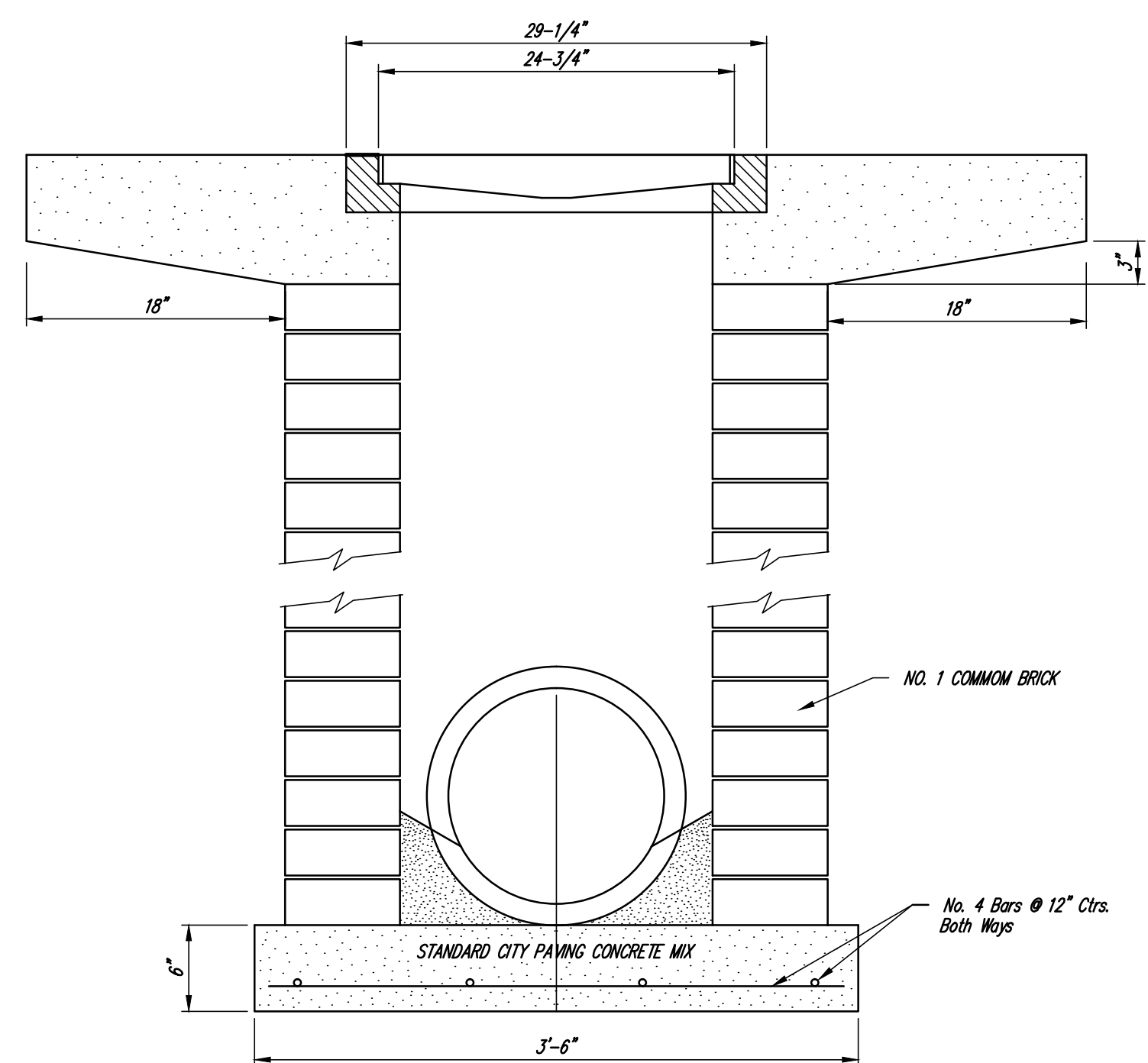
DEETER #2433 GRATE

24" x 24" Frame and Grate Detail

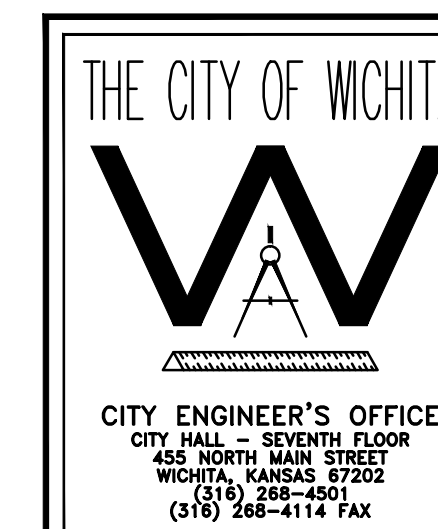
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.



Double 24" x 24" Frame Detail



RECORD DRAWINGS  
Inspected By: Scott Servis  
Poe & Associates, Inc.  
5-30-12



**DROP INLET**  
2' X 2'/2' X 4'

M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER	INDEX CODE
XXX-XXXXX	XXXXXX
DATE	SHEET X OF X
MAR 96	

NO. 1	DATE	BY	APPROVED
NO. 2			
NO. 3			
NO. 4			
NO. 5			

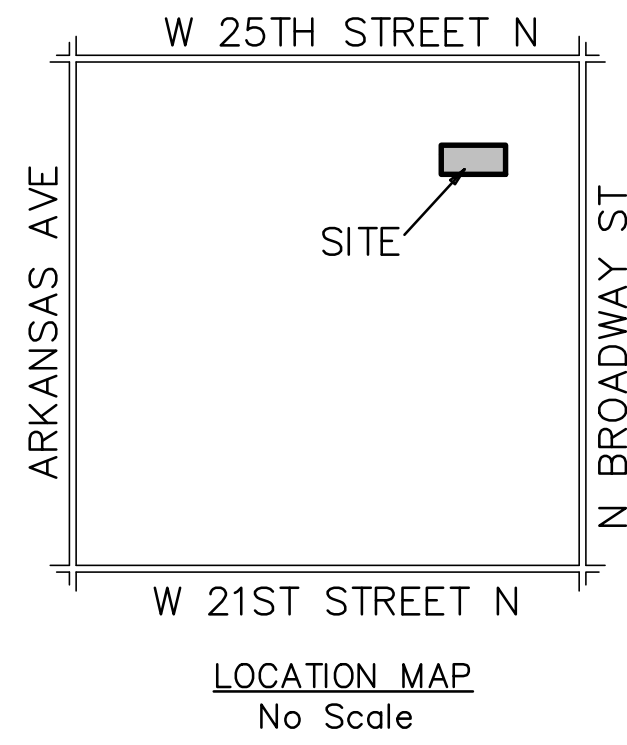
NOMAR SELF STORAGE  
DROP INLET  
DETAILS  
CITY OF WICHITA, KANSAS  
JAMES L. ARMOUR, P.E. - CITY ENGINEER  
0047 PPD (607861)

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5940 E. Central, Suite 200 □ Wichita, KS  
67208-1242  
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**FINAL**

Engineer: S. SERVIS  
Designer: S. SERVIS  
Drawing: P:\1109FP\NoMar Self Storage\sitebase.dwg  
Date: SEPTEMBER 2011

Sheet 4 of 12



**GENERAL NOTES:**

**Erosion Control Notes:**

1. All areas disturbed by construction shall be seeded as directed by the owner immediately following construction in that area.
2. Contractor shall implement "Best Management Practices" in accordance with the Storm Water Pollution prevention plan to minimize sedimentation loss due to stormwater and wind erosion. Contractor shall obtain a copy from the civil engineer.
3. Contractor shall adjust the plan as necessary to accommodate construction phasing and sequencing.
4. Contractor shall install and maintain soil erosion control measures (BMP's) in accordance with City of Wichita ordinances.
5. The soil erosion BMP'S must be in place at all times during construction until such time as the site is re-established with paving or grass.
6. Failure to install, protect, and maintain BMP's are violations of City Ordinance 1285 and will subject the contractor to the penalties provided therein. Included with your permit is an orange "notice" sign that must be posted on-site in a conspicuous place at all times during construction. This sign is provided to assist you in the maintenance of BMP's.
7. Back of Curb Protection: Can include hay bale, silt fence, or Curlex barrier, as shown on City BMP standard details. This BMP must remain in place until the area between the curb and right-of-way line has been permanently stabilized.
8. The General Contractor is responsible for the design, installation and maintenance of all BMP's as necessary to prohibit erosion.
9. Any mud inadvertently tracked onto any street will be cleaned up by the general contractor at the end of each day's work.

**LEGAL DESCRIPTION:**

Lots 33, 35, 37, 39 and 41-48 Garland Brook Addition, to Wichita, Sedgwick County, Kansas.

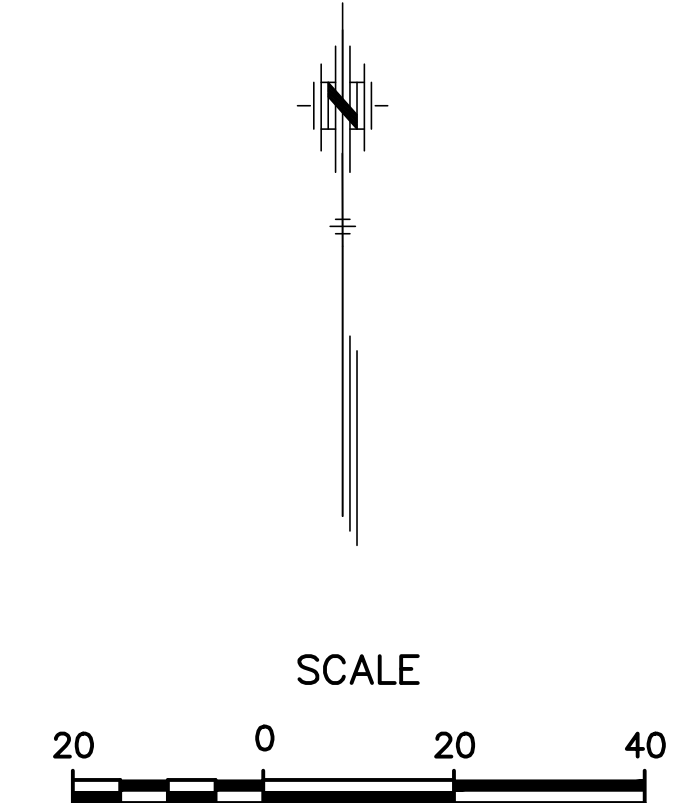
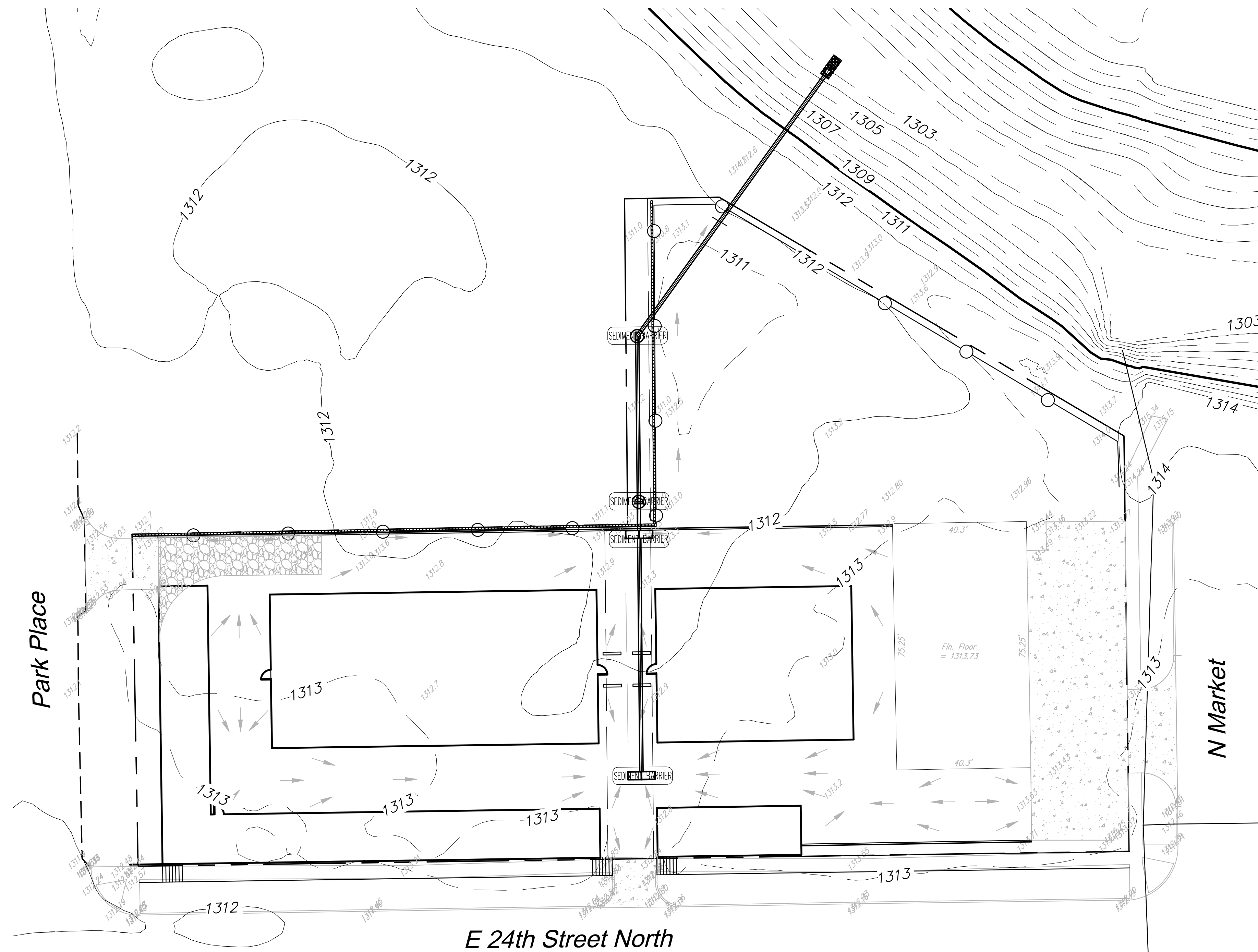
**BENCHMARKS:**

1. "□" cut on top of curb at south curb return south side entrance onto Market Street.  
Elev.=1312.46 (NAVD88)
2. "□" cut on top of curb at east curb return on northeast corner 24th Street North and Park Place.  
Elev.=1312.15 (NAVD88)

**Contacts:**

Surveyor:  
Mark Savoy  
Savoy Company, P.A.  
433 South Hydraulic Street  
Wichita, Kansas 67211  
685-0005

Civil:  
Scott Servis, P.E.  
Poe & Associates, Inc.  
5940 E. Central, Ste 200  
Wichita, Kansas 67208  
685-4114



**LEGEND**

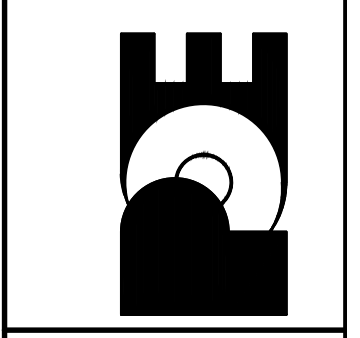
- Sediment Barriers
- Silt Fence
- Stabilized Construction Entrance

**RECORD DRAWINGS**  
Inspected By: **Scott Servis**  
Poe & Associates, Inc.  
5-30-12

No.	Date	By	Approval	Revision

NOMAR SELF STORAGE  
EROSION CONTROL  
DETAILS  
**CITY OF WICHITA, KANSAS**  
JAMES L. ARMOUR, P.E. - CITY ENGINEER  
0047 PD (607861)

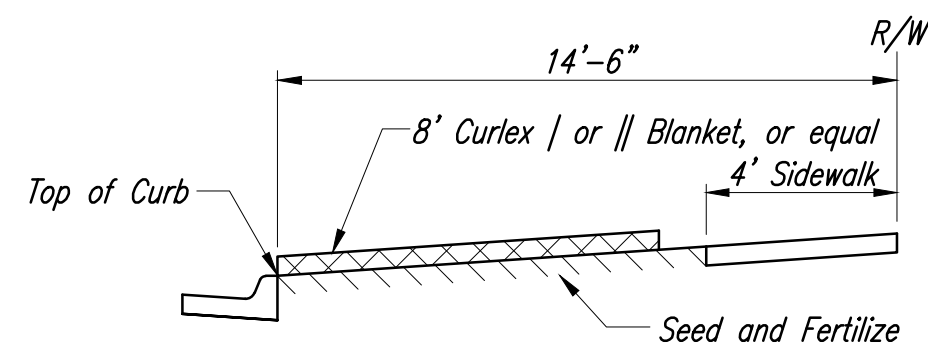
**POE & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
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67208-0242  
Phone 316/685-4114 □ FAX 316/685-4444



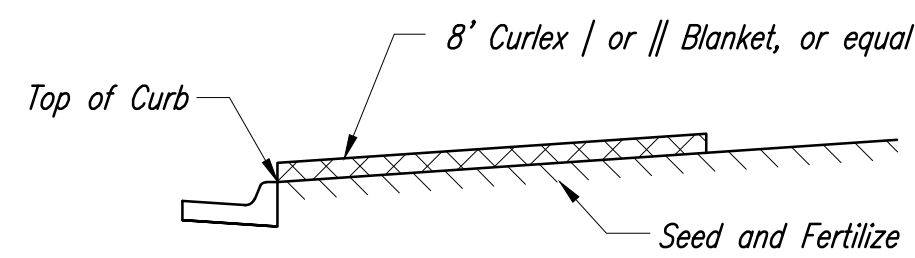
**FINAL**

Engineer: S. SERVIS  
Designer: S. SERVIS  
Drawing: P:\1109FP\NoMar Self Storage\sitebase.dwg  
Date: 9/12/2011

Sheet  
5 of 12

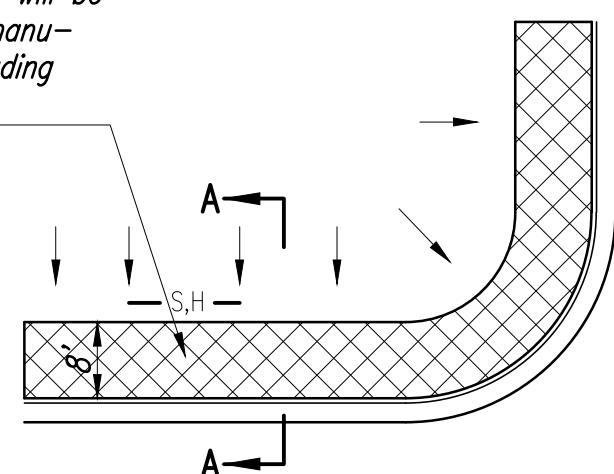


SECTION B-B

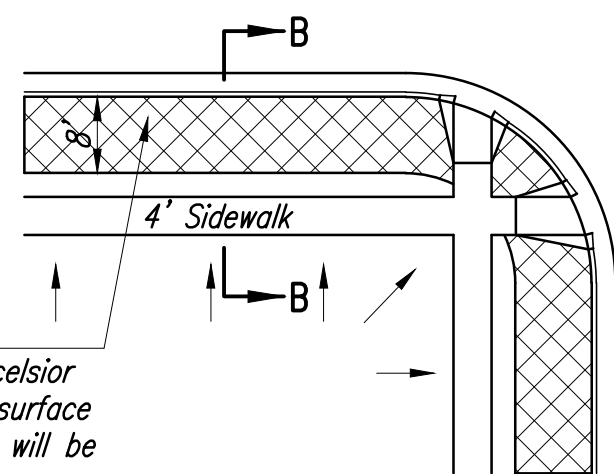


SECTION A-A

Install 8' wide Curlex | or || Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples. (See detail)



SOUTH STREET

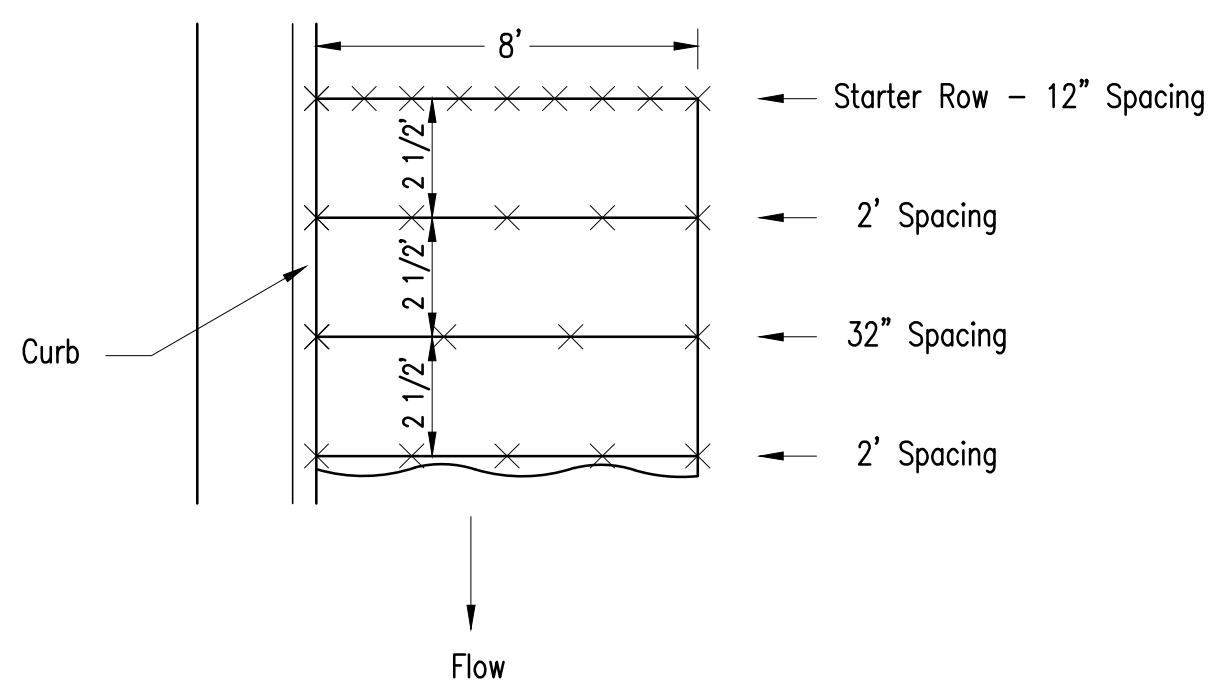


Install 8' wide Curlex | or || Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples. (See detail)

NOTES:

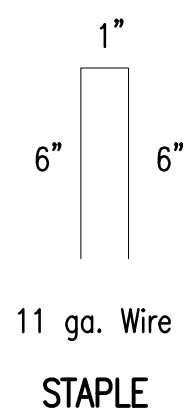
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE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

BACK OF CURB PROTECTION DETAIL



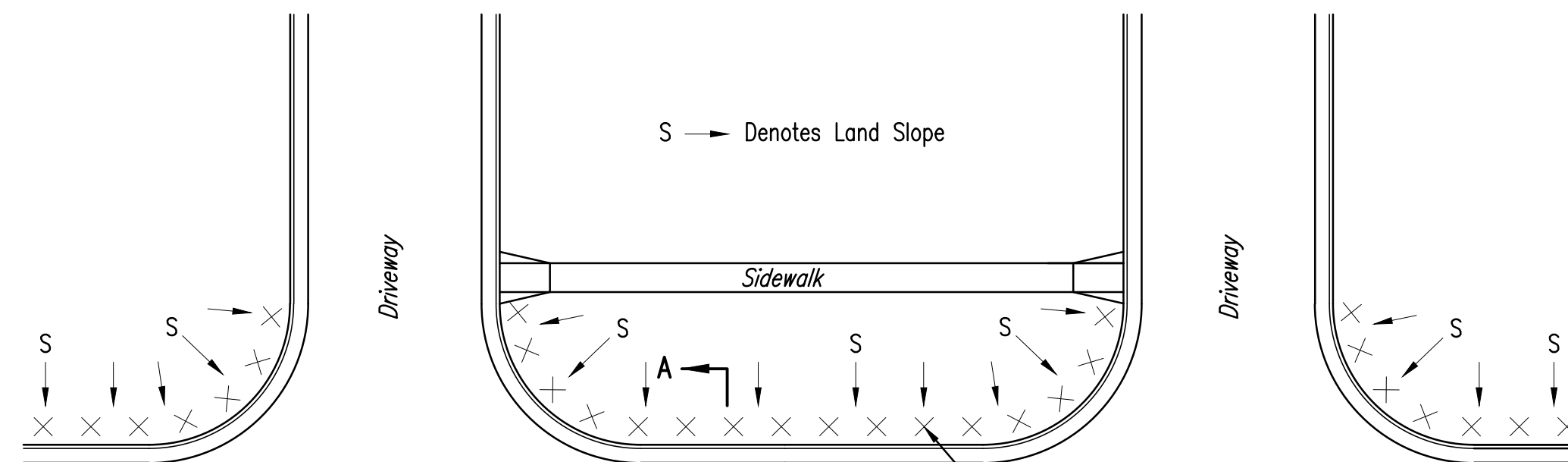
STAPLE PATTERN

NOTES: Use 6" seam overlap

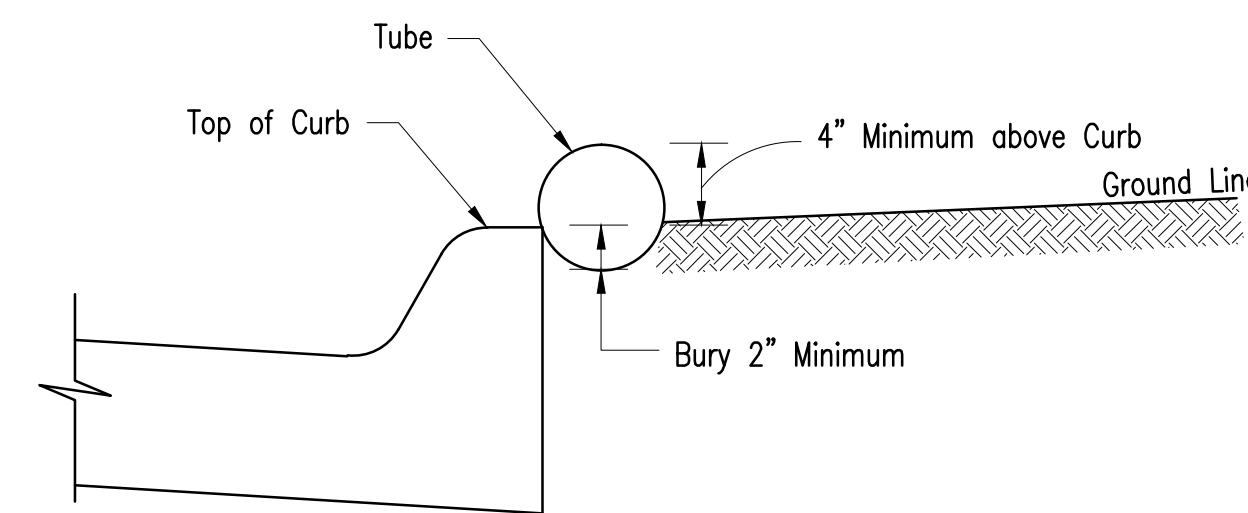


STAPLE

DETAILS FOR CURLEX | OR || BLANKETS



PLAN VIEW



SECTION A-A

NOTES:

1. Barriers must be placed back of curb along street and up the driveway sufficiently to catch all sediment from the yard.
2. Overlap seams 6 inches
3. Anchor to ground every 3.0 feet.
4. All tubes shall be constructed of heavy duty netting, rolled erosion control fabric or similar devices filled with a porous material that will allow water to pass while filtering sediment. Tubes shall be 6" to 9" in diameter.
5. Remove accumulated sediment when within 2 inches of top of device.
6. Replace all broken tubes to maintain effectiveness of device.
7. If tubes are removed during the day for access to the site, they will be replaced prior to a rainfall event and at night before work ceases. Replace properly per original design.

TUBE BARRIERS

NOTES:

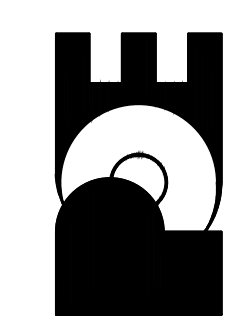
Properly constructed and maintained Silt Fence Barriers or Straw Bale Barriers may be used for back of curb erosion control. See the Soil Erosion BMPs-Barrier Details for additional information.

RECORD DRAWINGS  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12

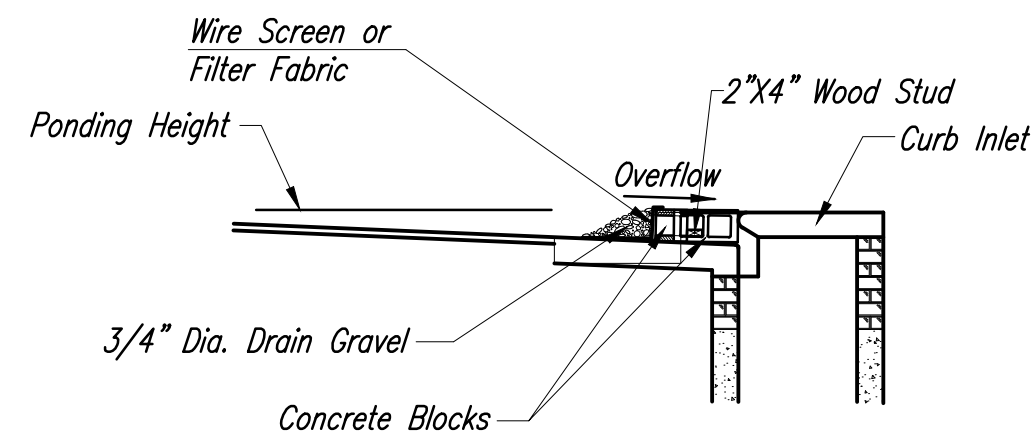
No.	Date	By	Approved

NOMAR SELF STORAGE  
 BMP  
 DETAILS  
 CITY OF WICHITA, KANSAS  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER  
 0047 PPD (607861)

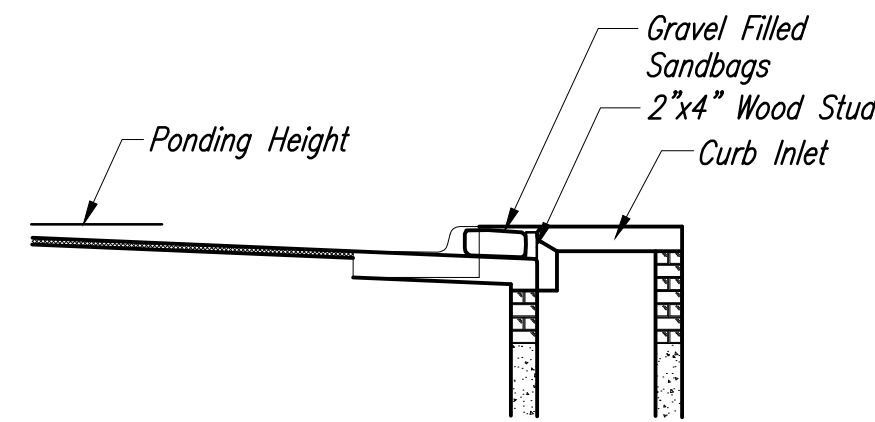
POE & ASSOCIATES, INC.  
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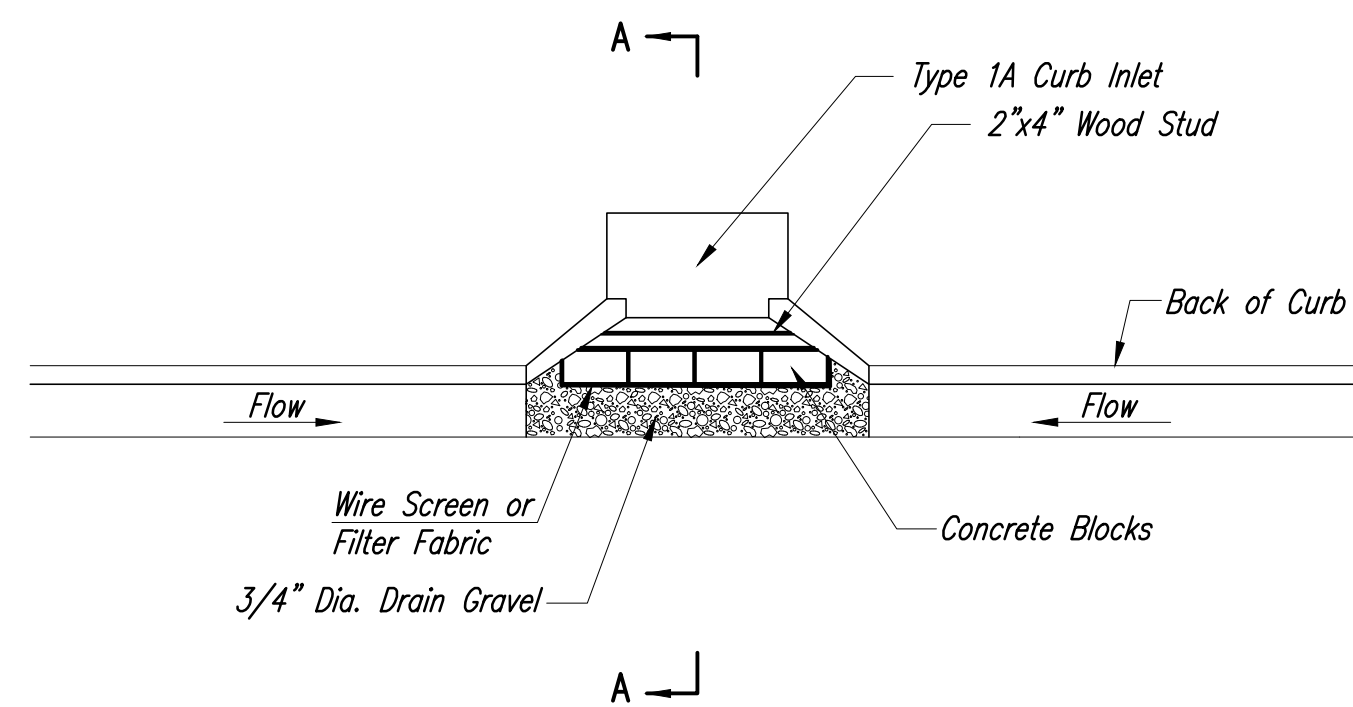
FINAL  
 Engineer: S. SERVIS  
 Designer: S. SERVIS  
 Drawing: P:\1109FP\NoMar Self Storage\sitebase.dwg  
 Date: SEPTEMBER 2011



SECTION A-A



SECTION B-B



CURB INLET GRAVEL FILTERS  
(INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

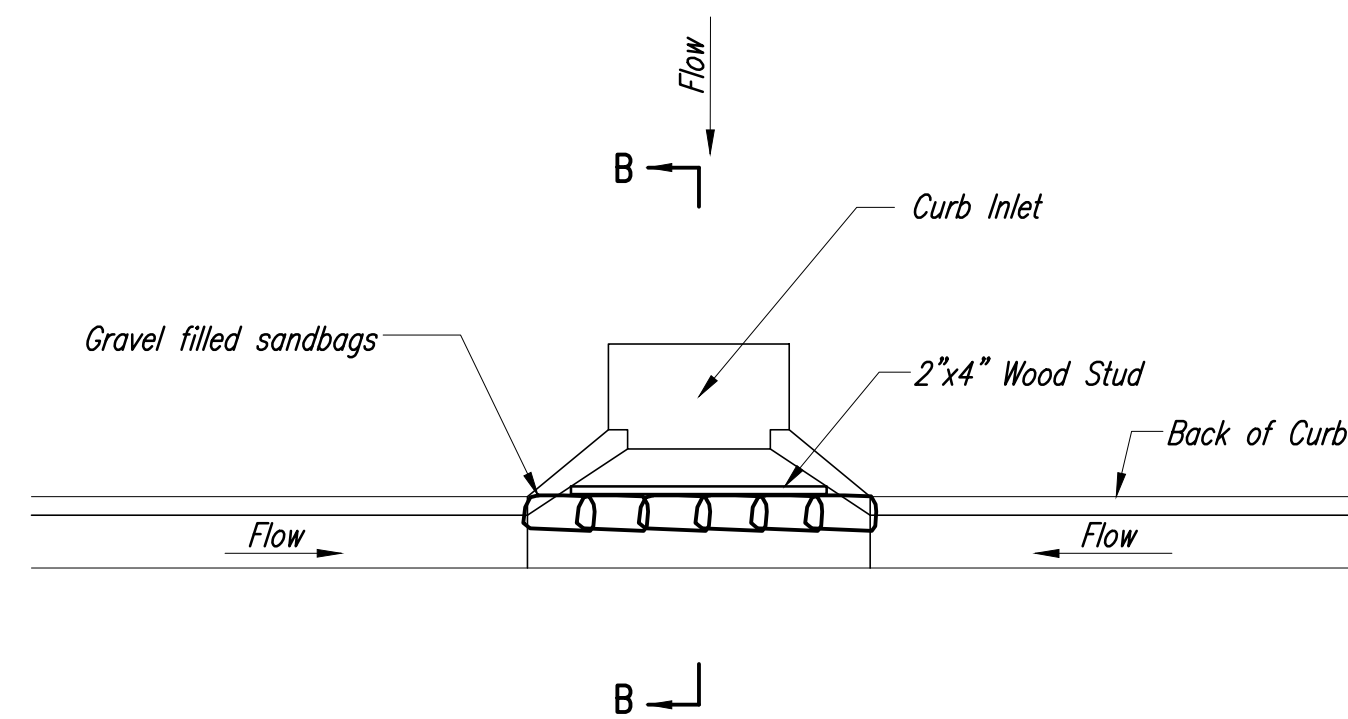
Instructions for Installing:

- STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
- STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
- STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
- STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent collapsing.

Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

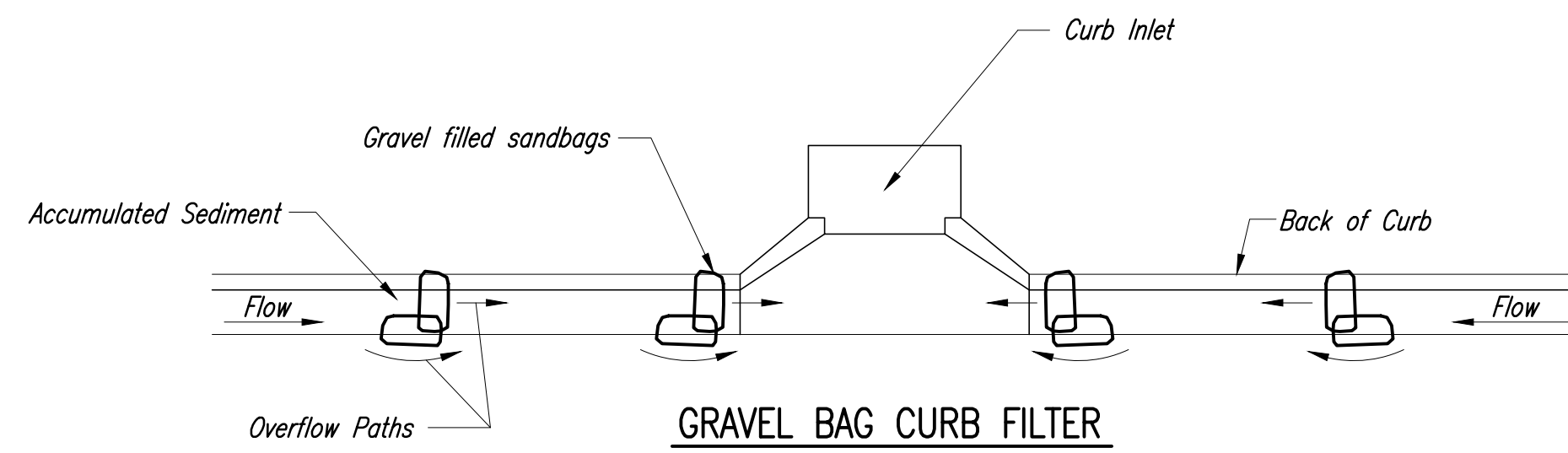
Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.



CURB INLET SANDBAG FILTERS  
(INLET PROTECTION)

NOTE: Other types of curb inlet protection may be approved by the City so long as equal protection is provided.



GRAVEL BAG CURB FILTER  
(INLET PROTECTION)

NOTE: Place two or more sets of bags in a manner that results in maximum support. The flow line bag must be lower than top of curb.

CURB SEDIMENT TRAPS

When inlets are located on streets having a grade (i.e., sump conditions do not exist), installing gravel (or sand) bags in the gutter flow line to create small sediment traps can be considered. Gravel bags are recommended over sand bags to allow for drainage.

If the spacing between bags becomes too large, little sediment may be trapped. Spacing of bags should be completed using the table or graph that illustrates placement distances based upon street slope. When installed in the gutter, bag tops must be lower than the sidewalk.

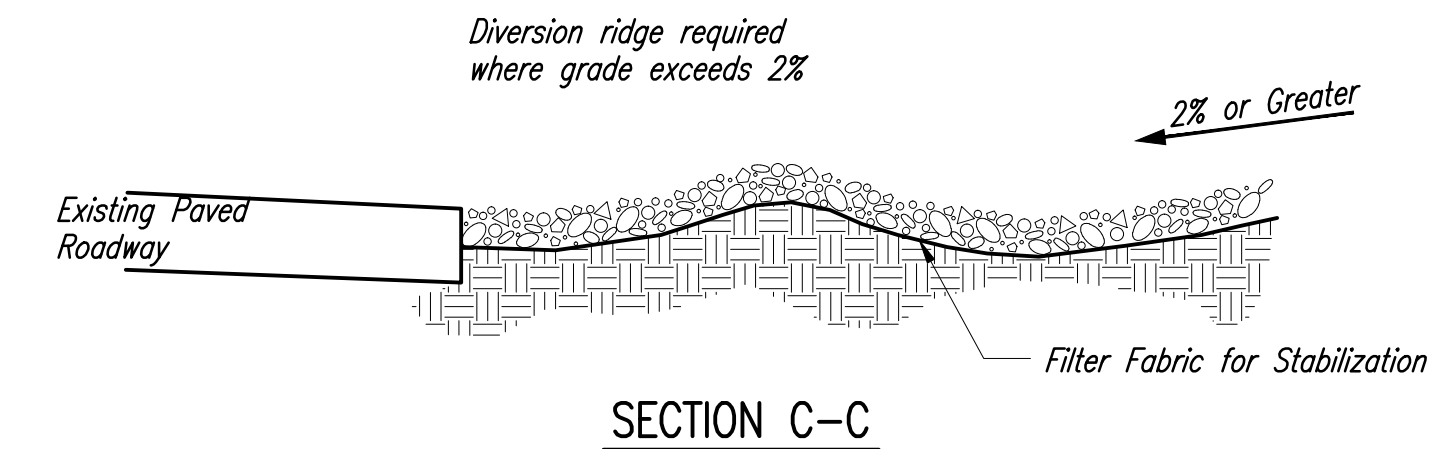
Spacing:

Gravel bags are to be placed according to street grades using the following table or graph that appears below.

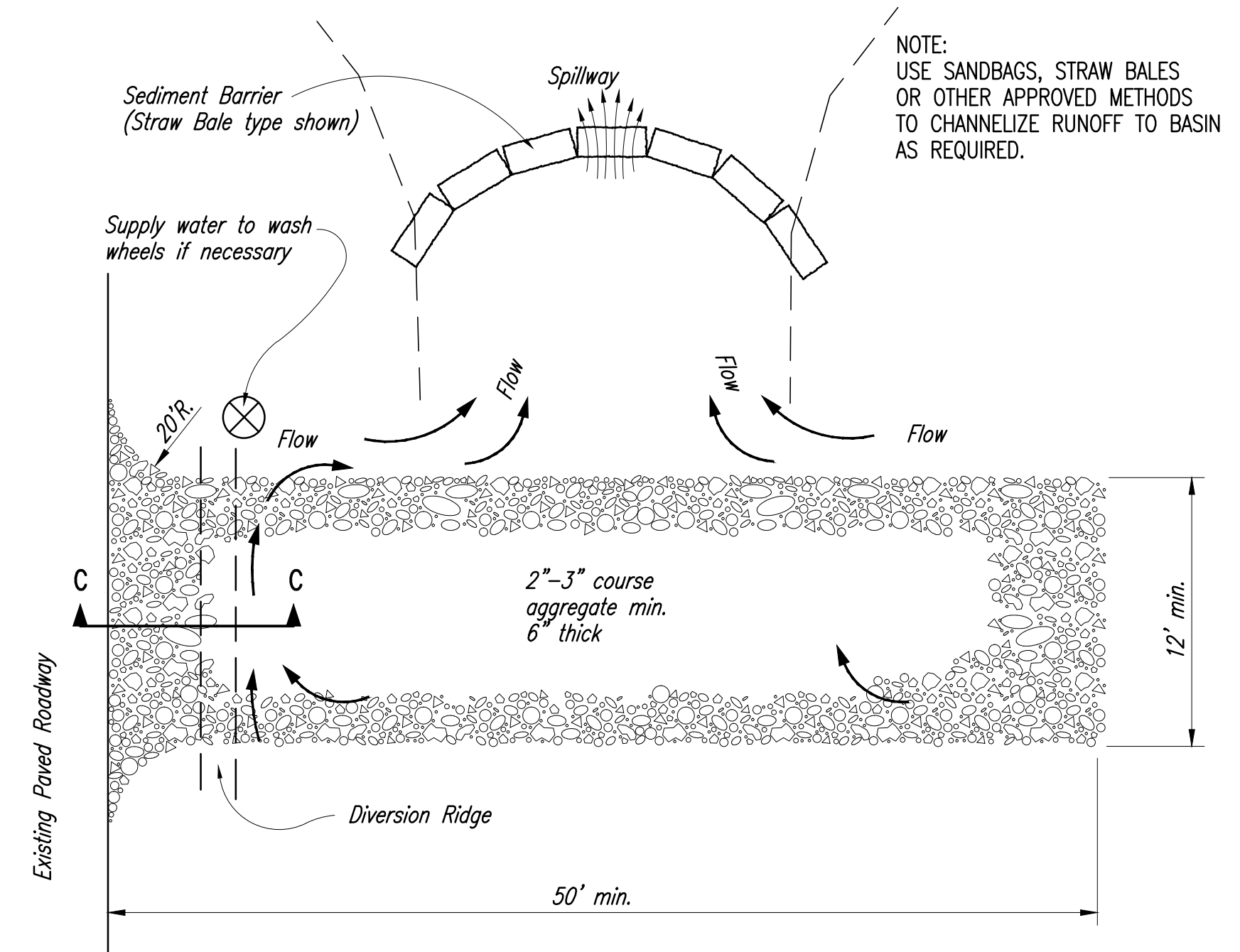
GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

Maintenance:

Collected sediment shall be removed after every runoff event. Bags that are destroyed by vehicular traffic or through natural deterioration are to be immediately replaced.



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

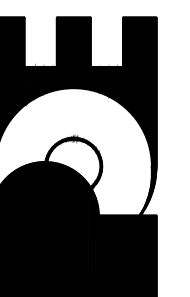
NOTES:

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.

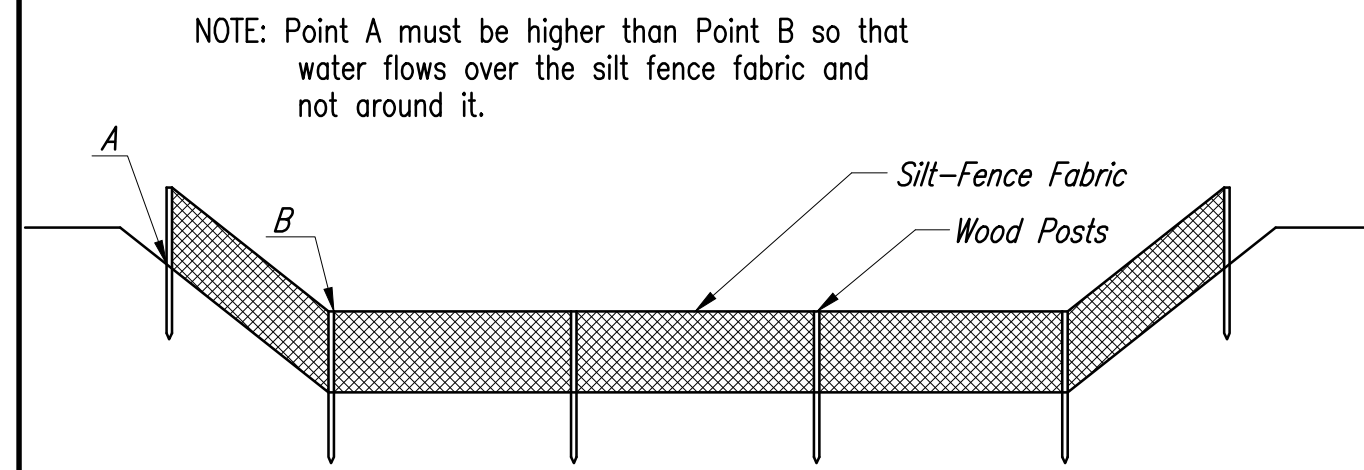
RECORD DRAWINGS  
Inspected By: Scott Servis  
Poe & Associates, Inc.  
5-30-12

NOMAR SELF STORAGE  
BMP  
DETAILS  
CITY OF WICHITA, KANSAS  
JAMES L. ARMOUR, P.E. - CITY ENGINEER  
0047 PFD (607861)

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5940 E. Central, Suite 200 □ Wichita, KS  
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FINAL  
Engineer: S. SERVIS  
Designer: S. SERVIS  
Drawing: P:\1109P\NoMar Self Storage\sitebase.dwg  
Date: SEPTEMBER 2011



**ELEVATION**  
**SILT FENCE DITCH CHECKS**  
(STREAM PROTECTION)

**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.

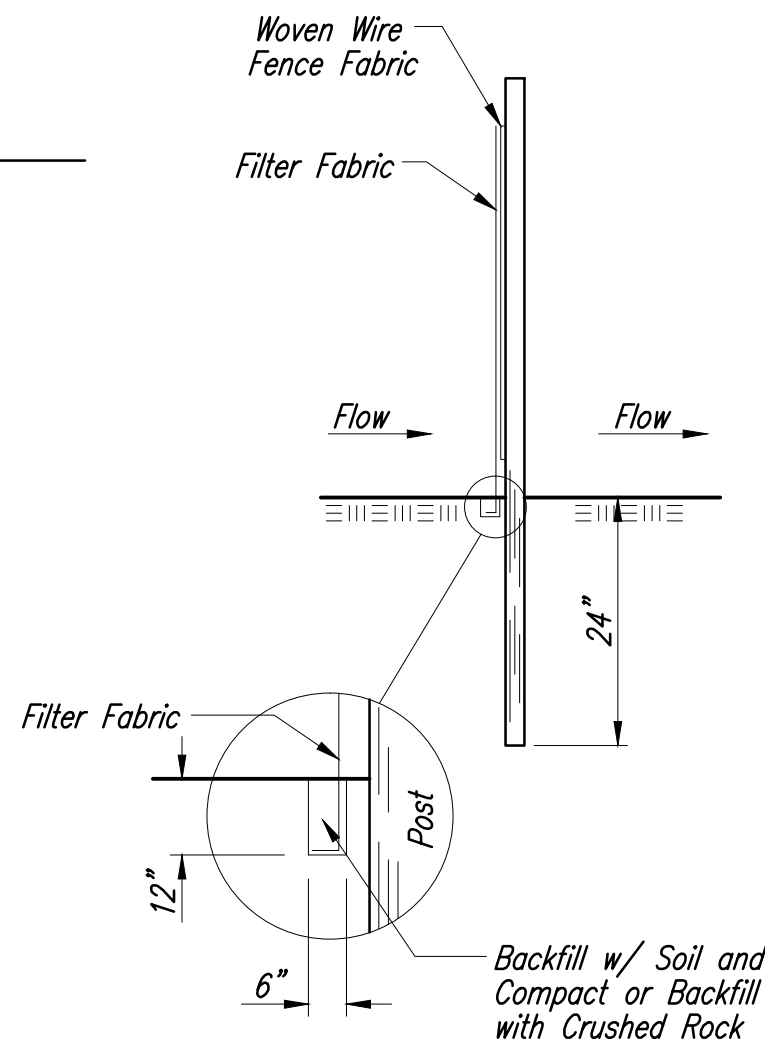
**List of common placement/installation mistakes to avoid:**

- 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.

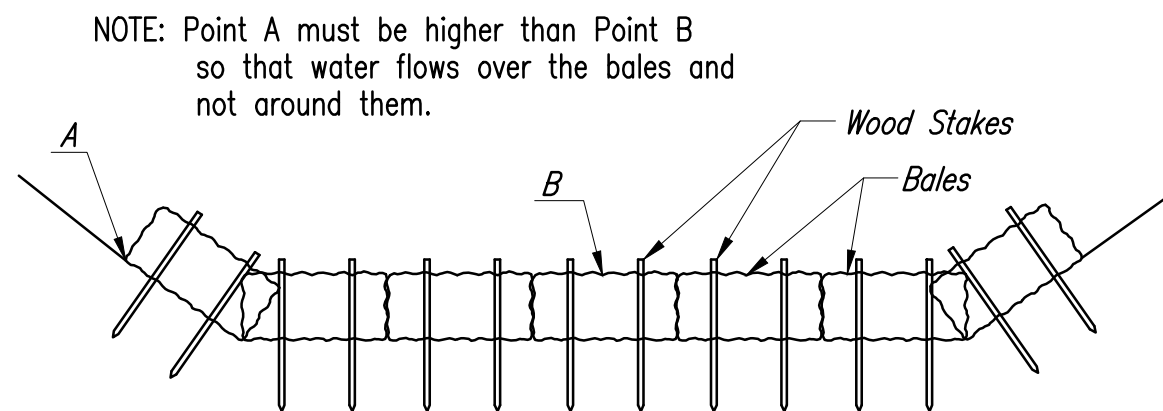
**Inspection and Maintenance:**

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?



**ANCHOR TRENCH DETAIL**



**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 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".

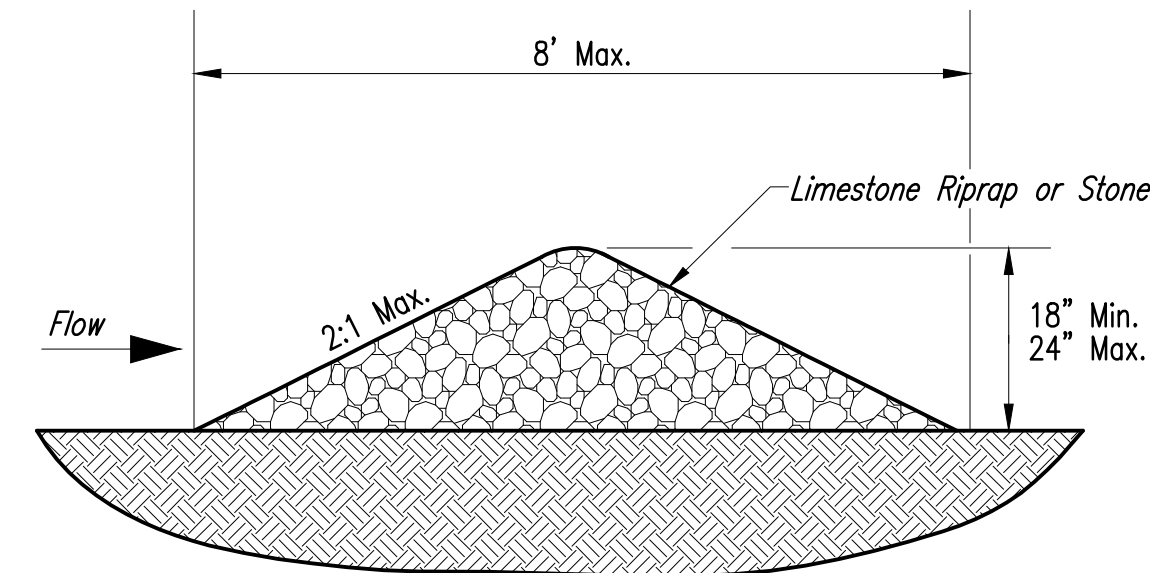
**List of common placement/installation mistakes to avoid:**

- 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.

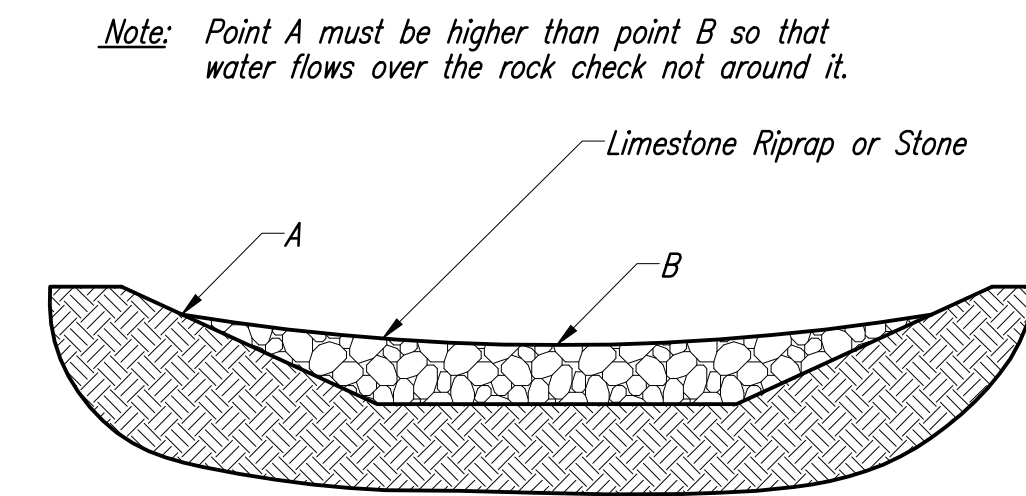
**Inspection and Maintenance:**

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?



**DETAIL OF ROCK DITCH CHECK INSTALLATION**



**INSTALLATION OF ROCK DITCH CHECKS**

**ROCK DITCH CHECKS**

**Purpose & Design**

Rock ditch checks operate by intercepting and ponding sediment-laden run-off. Ponding the water dissipates the energy of any incoming flow and allows a large portion of the suspended sediment to settle out. Water exits the ditch check by flowing over its crest. Rock ditch checks are ideal for ditches that will eventually have a riprap lining. Upon completion of the project, the rock ditch checks can be spread out to form the riprap channel lining.

**Material Specification:**

Stone used for rock ditch checks shall be free from soapstone, shale, shalike, or other easily disintegrated material. Stone used may be irregular in shape and shall be approximately 6" to 9" in width, 12" in length and a minimum weight per stone of 50 lbs. Precast concrete blocks and concrete from old structures may not be used. The stone shall be placed ungrouted.

**Placement:**

Rock ditch checks shall be placed perpendicular to the flowline of the ditch.

Rock ditches must be designed so that water can flow over them, not around them. The ditch checks should extend far enough so that the ground level at the ends of the check is higher than the low point on the crest of the check.

**Proper installation method:**

Using Limestone or Rock as listed above, construct a rock ditch check perpendicular to the ditch flowline. The ditch check should be 18" to 24" high and have side slopes no steeper than 2:1. The rock ditch check must be constructed so that water can flow over the top and not around the ends (i.e., the ground level at the ends of the check must be higher than the low point on the crest of the check).

**List of common placement/installation mistakes to avoid:**

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 low point on the crest of the check.

**Inspection and Maintenance:**

Rock ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 0.5 inches or more. The following is a list of questions that should be addressed during each inspection:

- Does the water flow around the ditch check? This is usually caused by insufficient ditch check length. If this occurs extend the check a sufficient length so that the ground level at the ends of the check is higher than the low point on the crest of the check.
- Have high-velocity flows displaced any stones from the check? Sometimes high-velocity flows can carry away portions of a rock ditch check after a large rainstorm, inspect the rock ditch check for any displaced stones. If a large portion of a rock ditch check has washed away, fill in the void with new stone immediately.
- Does sediment need to be removed from behind the ditch check? Sediment accumulated behind the ditch check should be removed when it reaches one-half of the original exposed height of the rock ditch check. Allowing too much sediment to accumulate behind a ditch check drastically reduces its effectiveness. One high-intensity rainfall can dislodge That is why it is extremely important to inspect ditch checks within 24 hours of a large rainfall.

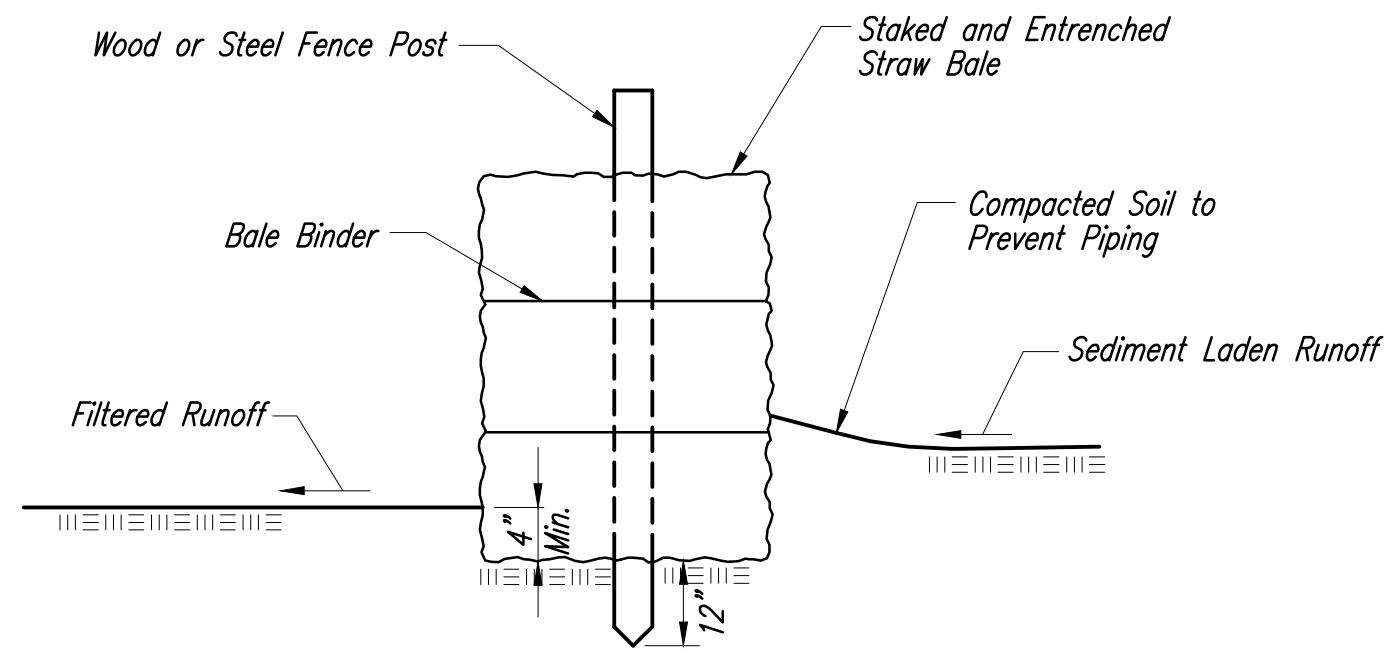
**RECORD DRAWINGS**  
- Inspected By: Scott Servis  
- Poe & Associates, Inc.  
- 5-30-12

NOMAR SELF STORAGE  
BMP  
DETAILS  
CITY OF WICHITA, KANSAS  
JAMES L. ARMOUR, P.E. - CITY ENGINEER  
0047 PFD (607861)

POE & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
5940 E. Central, Suite 200 Wichita, KS  
67208-0242  
Phone 316/665-4114 FAX 316/665-4444



Engineer: S. SERVIS  
Designer: S. SERVIS  
Drawing: P:\1109P\NoMar Self Storage\sitebase.dwg  
Date: SEPTEMBER 2011



**STRAW BALE BARRIERS**

**Material Specification:**

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or brome grass 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.

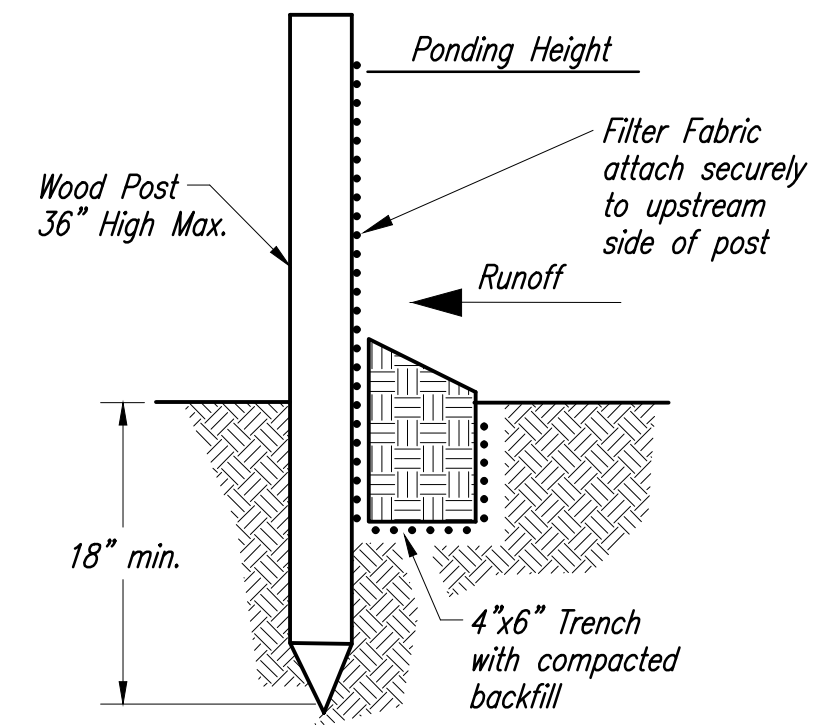
**List of common placement/installation mistakes to avoid:**

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?



**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?

**RECORD DRAWINGS**  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12

No.	Date	By	Approval/Revision

NOMAR SELF STORAGE  
 BMP  
 DETAILS  
 CITY OF WICHITA, KANSAS  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER  
 0047 PPD (607861)

POE & ASSOCIATES, INC.  
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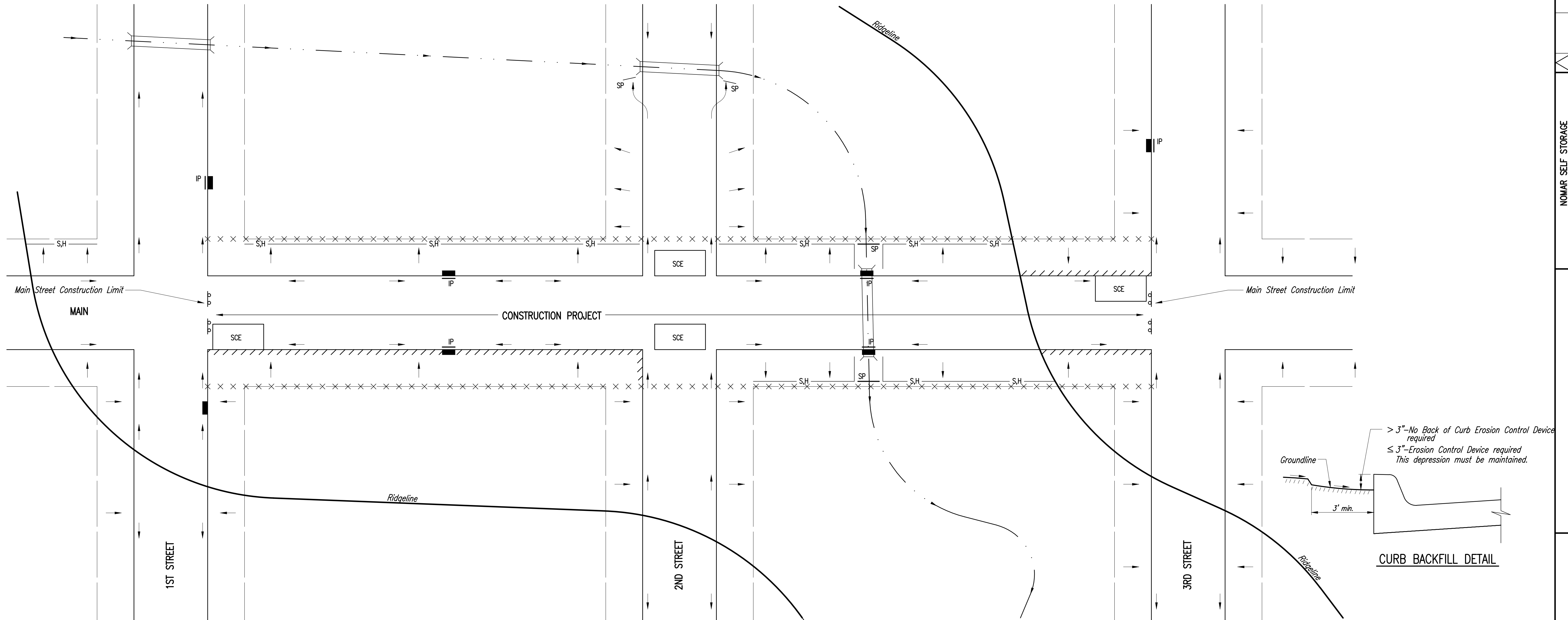
FINAL  
 Engineer: S. SERVIS  
 Designer: S. SERVIS  
 Drawing: P:\1109FP\NoMar Self Storage\sitebase.dwg  
 Date: SEPTEMBER 2011

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.

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.



**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 CURLEX | OR || EXCELSIOR BLANKET, OR EQUAL. 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)

**LEGEND**

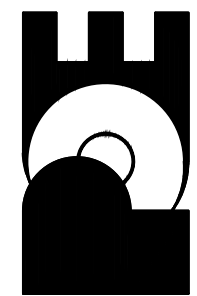
- R-O-W LIMITS
- DRAINAGE FLOW PATH
- × × × × R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S,H SILTY FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION

RECORD DRAWINGS  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12

No.	Date	By	Approved/Revision

NOMAR SELF STORAGE  
 BMP  
 DETAILS  
 CITY OF WICHITA, KANSAS  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER  
 0047 PPD (607861)

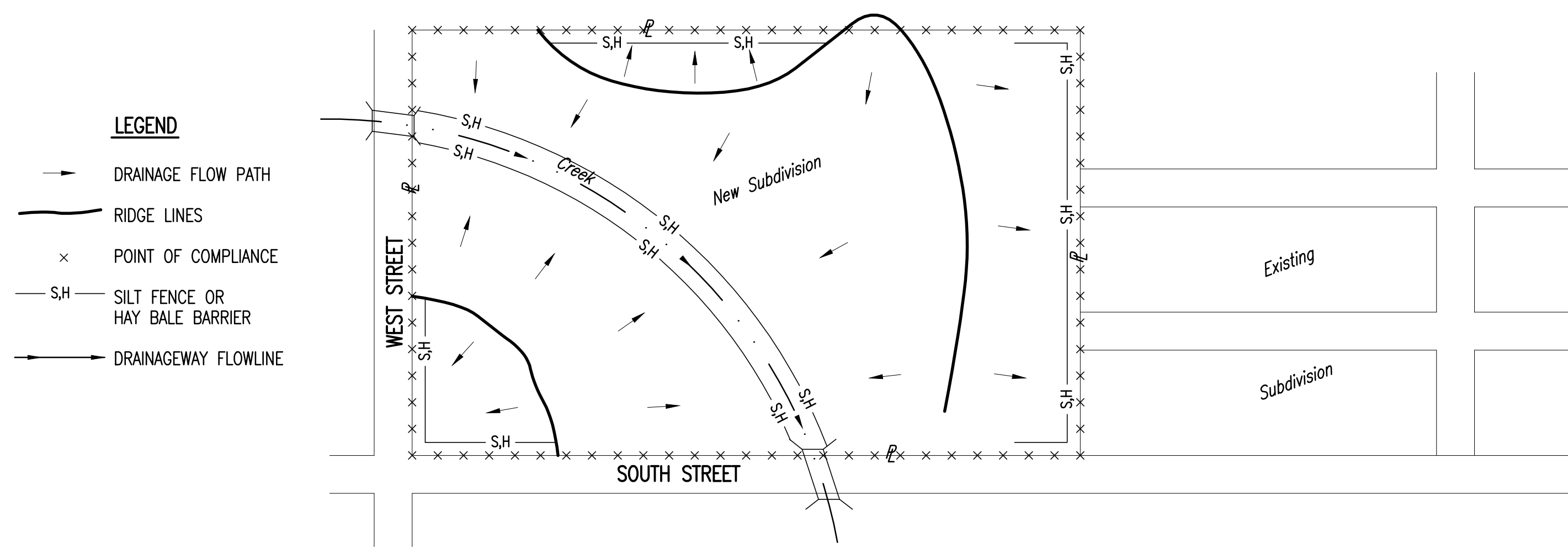
POE & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 5940 E. Central, Suite 200 Wichita, KS  
 67208-0242  
 Phone 316/685-4114 FAX 316/685-4444



**FINAL**

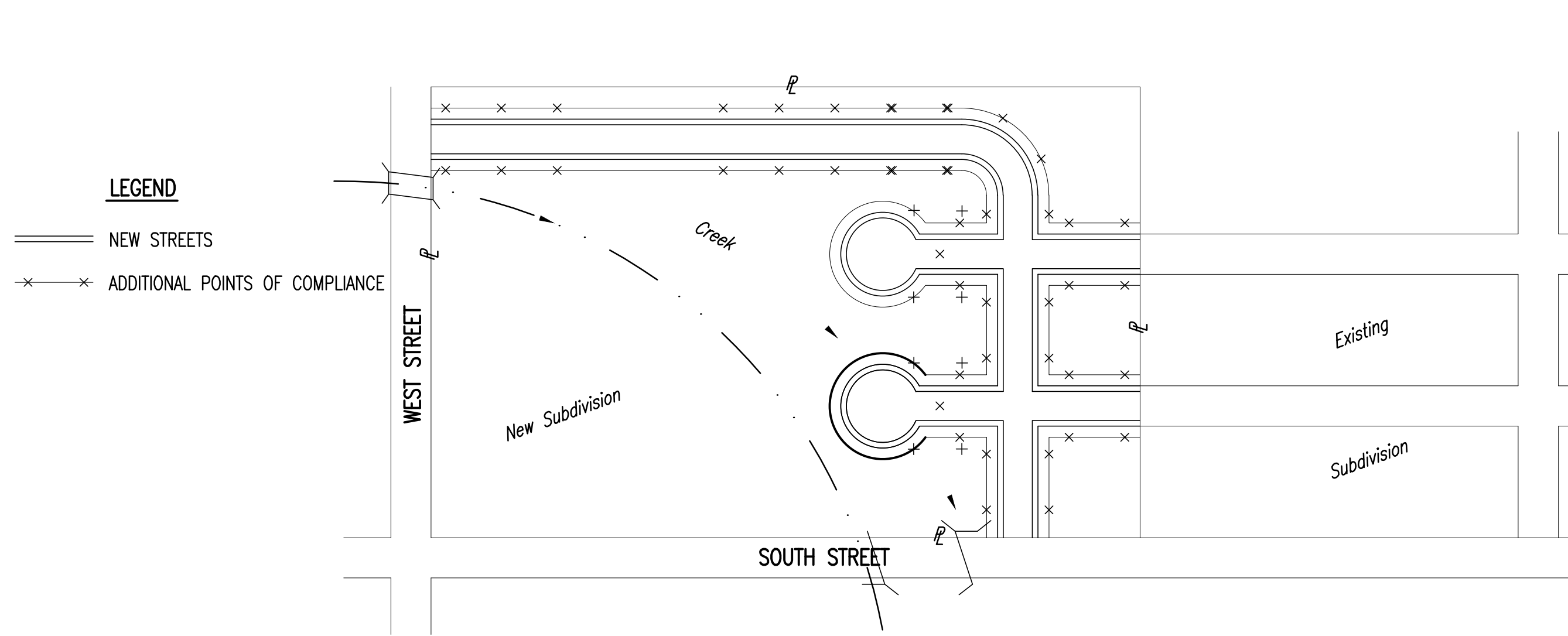
Engineer: S. SERVIS  
 Designer: S. SERVIS  
 Drawing: P:\1109P\NoMar Self Storage\sitebase.dwg  
 Date: SEPTEMBER 2011

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



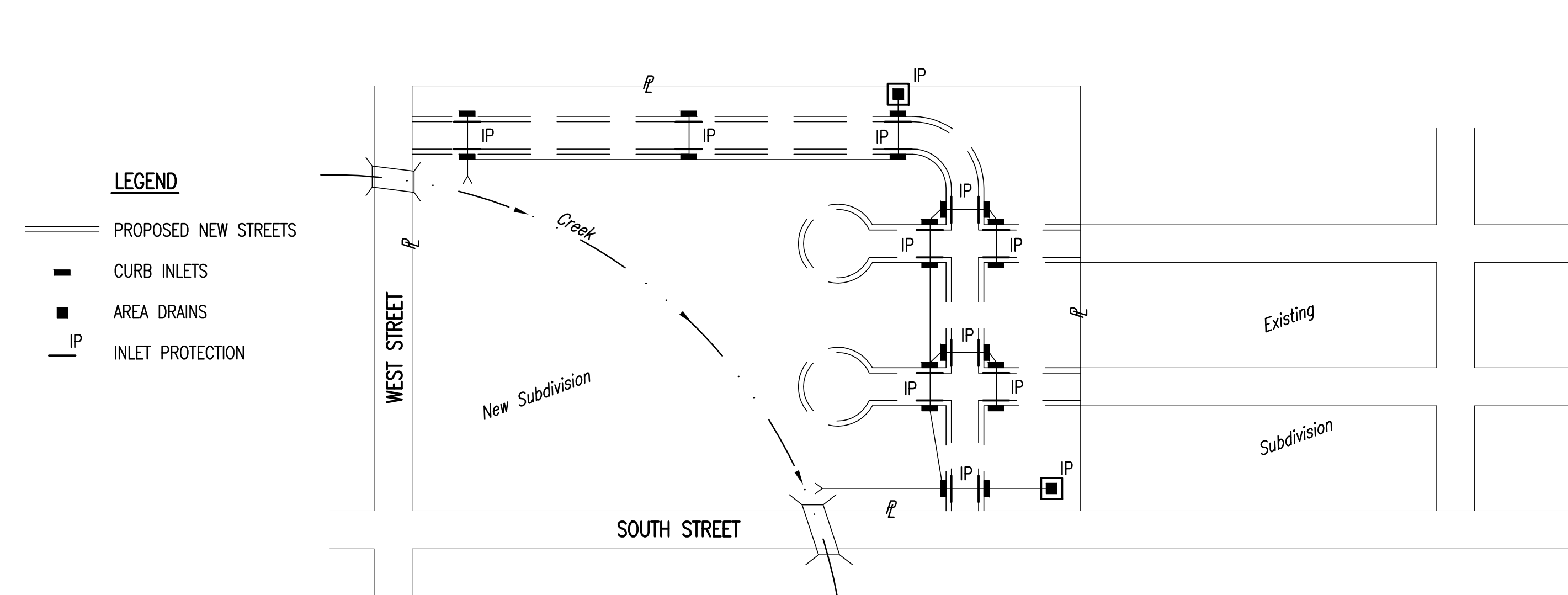
- LEGEND**
- DRAINAGE FLOW PATH
  - RIDGE LINES
  - x POINT OF COMPLIANCE
  - S.H- SILT FENCE OR HAY BALE BARRIER
  - DRAINAGEWAY FLOWLINE
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR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

**PHASE 3 – STREET CONSTRUCTION**



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

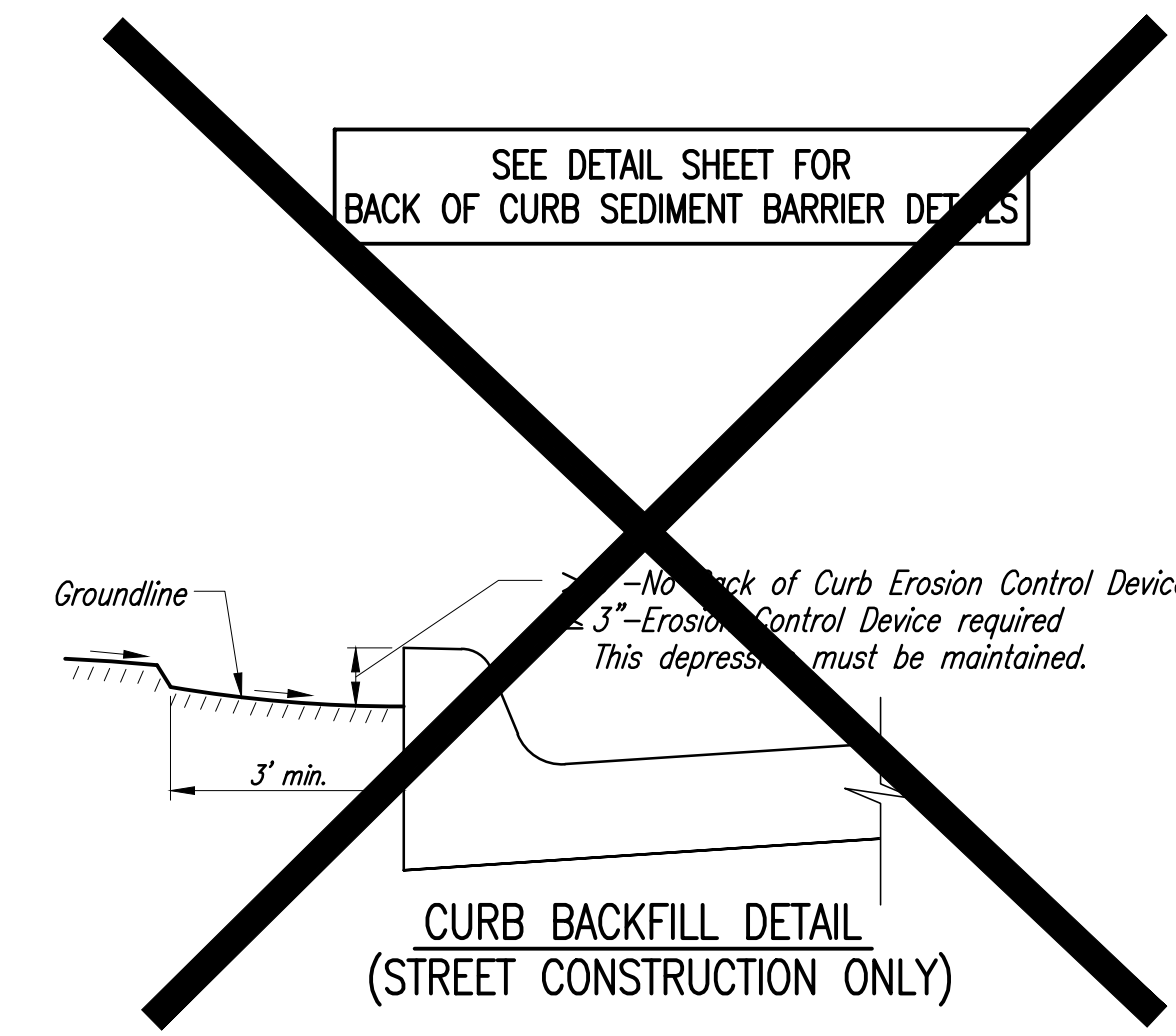
**PHASE 2 – INSTALLATION OF STORM SEWER**



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

**GENERAL NOTES:**

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



**RECORD DRAWINGS**  
 Inspected By: Scott Servis  
 Poe & Associates, Inc.  
 5-30-12

<p><b>NOMAR SELF STORAGE</b>                  BMP DETAILS                  CITY OF WICHITA, KANSAS                  JAMES L. ARMOUR, P.E. – CITY ENGINEER                  0047 PFD (607861)</p>	<p><b>POE &amp; ASSOCIATES, INC.</b>                  CONSULTING ENGINEERS                  5940 E. Central, Suite 208                  Wichita, KS 67208-0249                  Phone 316/665-4114 FAX 316/665-4444</p>
<p><b>FINAL</b></p>	<p>Engineer: S. SERVIS                  Designer: S. SERVIS                  Drawing: P:\1109P\NoMar_Self_Storage\sitebase.dwg                  Date: SEPTEMBER 2011</p>
<p>Sheet 11 of 12</p>	<p>By: _____                  Date: _____                  No. _____                  Approved/Revision</p>

