

**GENERAL NOTES:**

1. Contractor will be required to provide notice to utility companies a minimum of seventy-two (72) hours prior to any excavation, as follows:

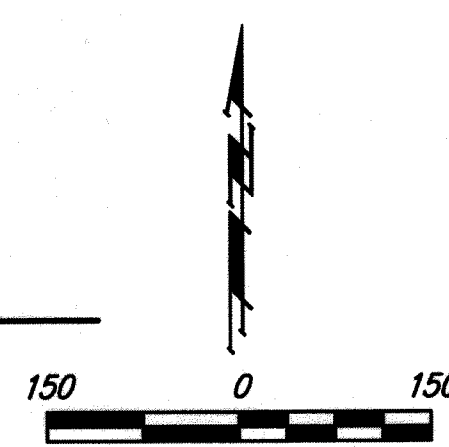
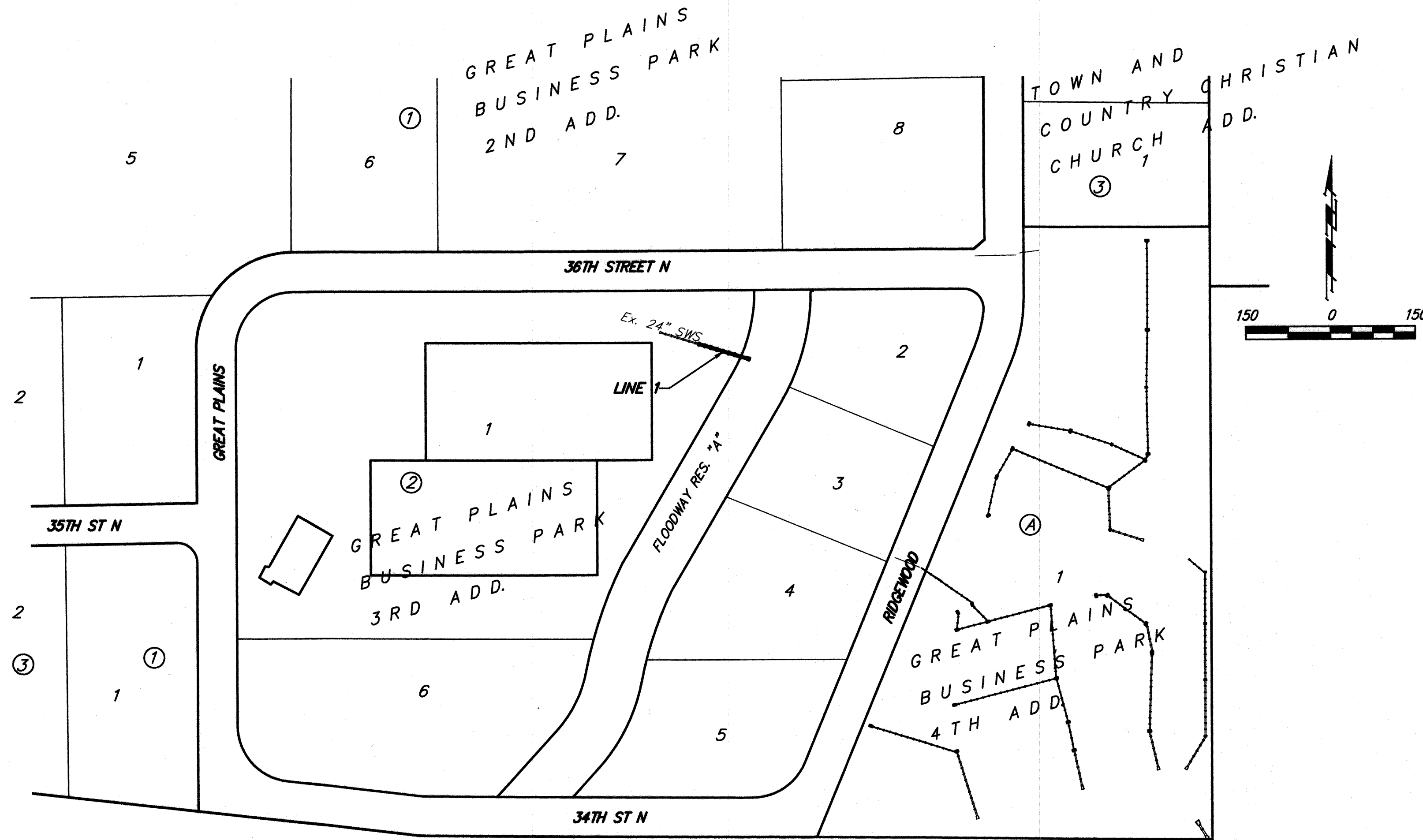
- Kansas One-Call 687-2470
- The Contractor must notify the following in case of an emergency:
- Cox Communications 262-4270
- Kansas Gas Service 1-888-482-4950
- Westar Energy 383-8650
- Black Hills Energy 1-800-303-0357
- AT&T 268-2245
- City of Wichita Water Dept. 268-4563
- City of Wichita Sewer Maint. 268-4024
- City of Wichita Storm Sewer Maint. 268-4090
- City of Wichita Traffic Maint. 268-4034
- Conoco Phillips Pipeline Co. 1-877-267-2290
- Southern Star Pipeline Co. 529-6600
- Kinder-Morgan Pipeline Co. 1-888-844-5658

- 2. Utility service lines, poles, valve boxes, meters, and etcetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- 3. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain 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.
- 4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- 5. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
- 6. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
- 7. All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Site Restoration".
- 8. All excess excavation shall remain on-site and shall be stockpiled or spread at a location determined by the engineer.
- 9. All areas disturbed during construction shall be seeded at 300 lbs./acre with Rye Grass immediately following construction in that area. Contractor shall prepare ground per City Specifications.
- 10. 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.

**STORM WATER SEWER IMPROVEMENTS**  
to serve  
**GREAT PLAINS BUSINESS PARK 3RD ADD.**

CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer  
Private Project Number  
0154 PPD



**Benchmarks**

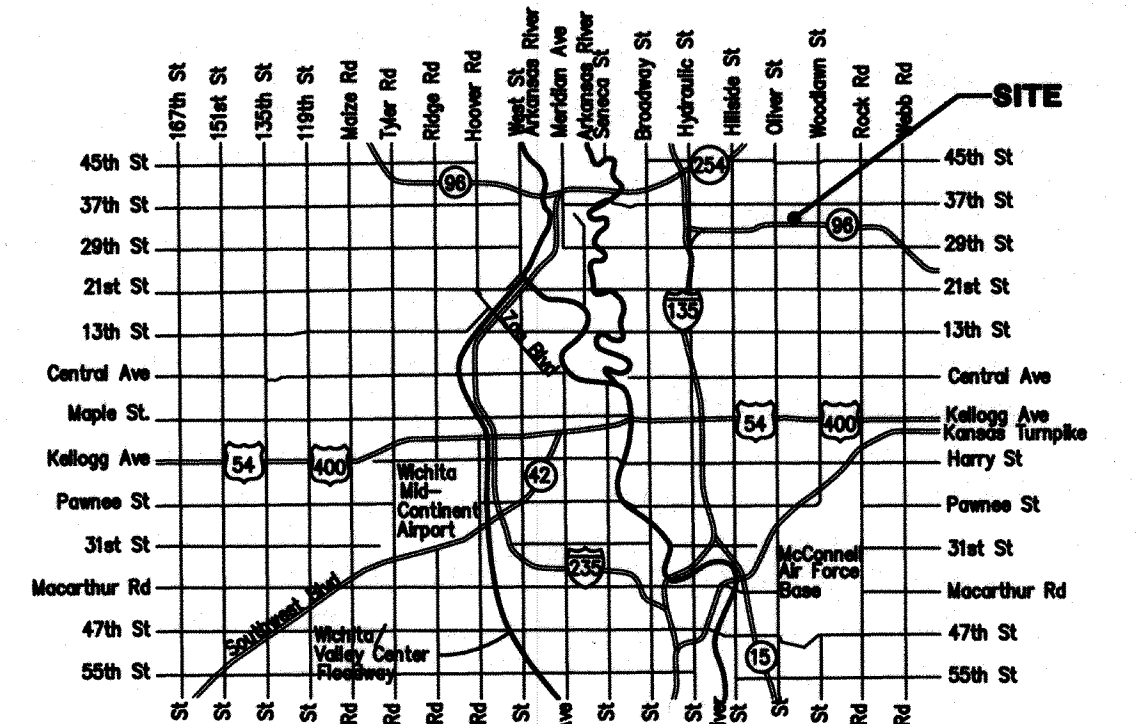
CROSS CUT TOP OF CATCH BASIN WEST SIDE OF RIDGEWOOD 14'± NORTH OF THE SE COR. OF LOT 3, BLOCK 2, GREAT PLAINS BUSINESS PARK ADDITION.  
ELEV.=1368.03 (NAVD88)

**Sheet Index**

Title Sheet	1
Line 1	2
Miscellaneous & Rip-rap Details	3
Erosion Control Plan	4
Erosion Control BMP Details	5
Copy of Plat	6

**As-Built Plans**

Contractor: Mies Construction, Inc.  
Inspector: Eric Strecker, Schwab-Eaton, PA  
PDF by: ELS 03/11/13

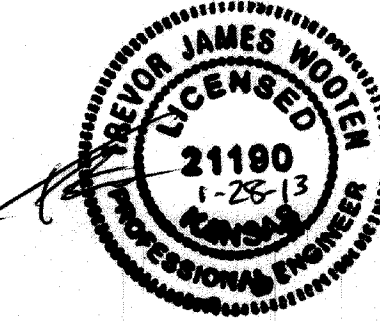


APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA

Storm Sewers *[Signature]* 1-28-13  
Engineering *[Signature]* 1-24-13

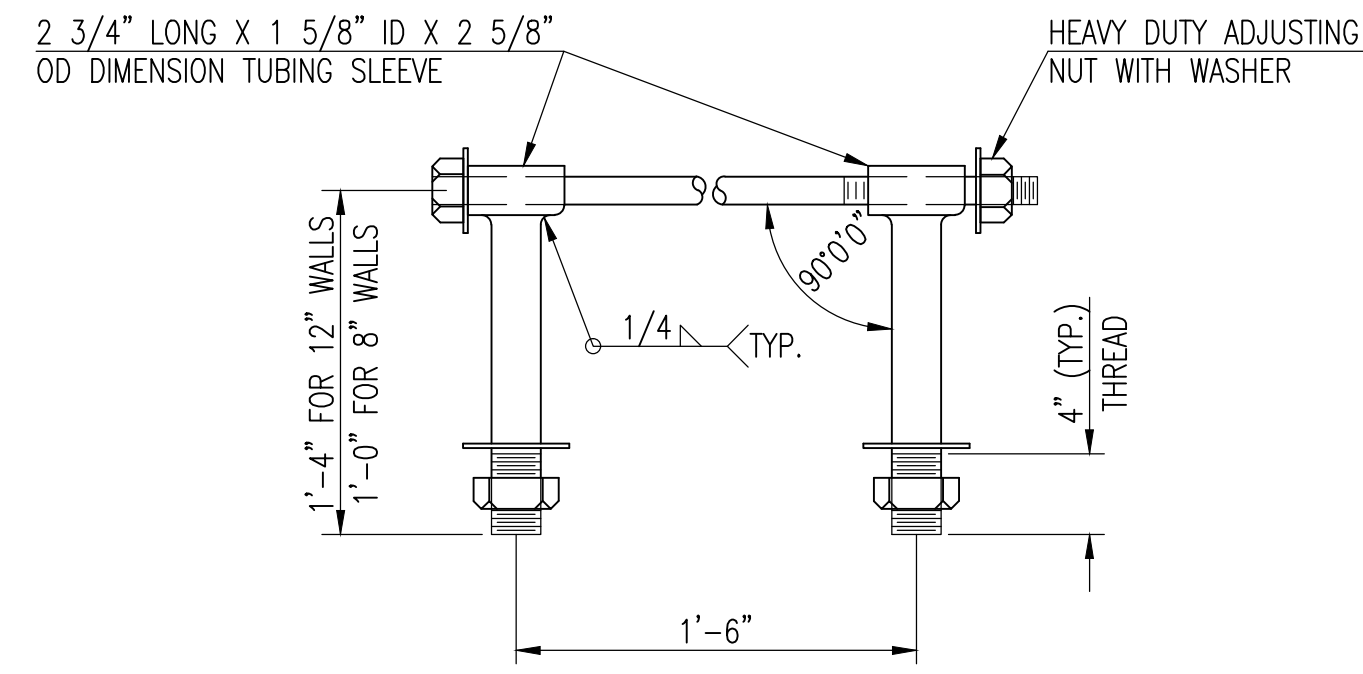
NOTE TO CONTRACTORS

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 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).



Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0144  
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE



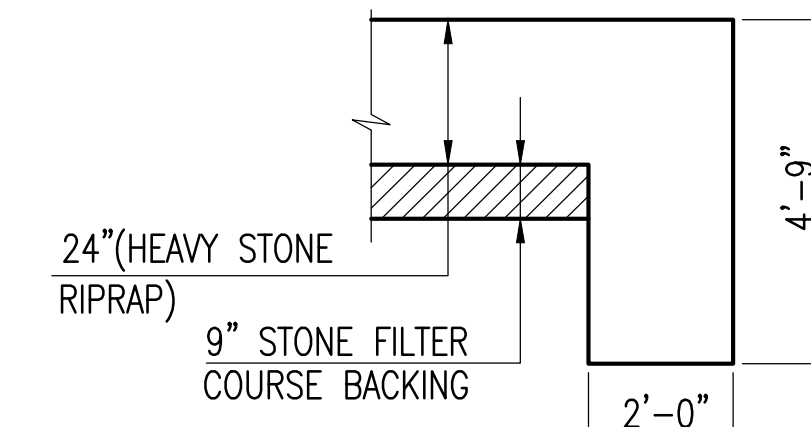


**HEAVY DUTY (H.D.) COUPLER**

NO SCALE

NOTES

1. BOLTS TO BE A-36 1 1/2" DIAMETER.
2. BOLTS, NUTS, WASHERS AND SLEEVES TO BE ZINC PLATED.
3. WASHERS TO BE 3 1/2" O.D. X 7 GAUGE.
4. SHIP WITH NUTS AND WASHERS PLACED ON BOLTS.



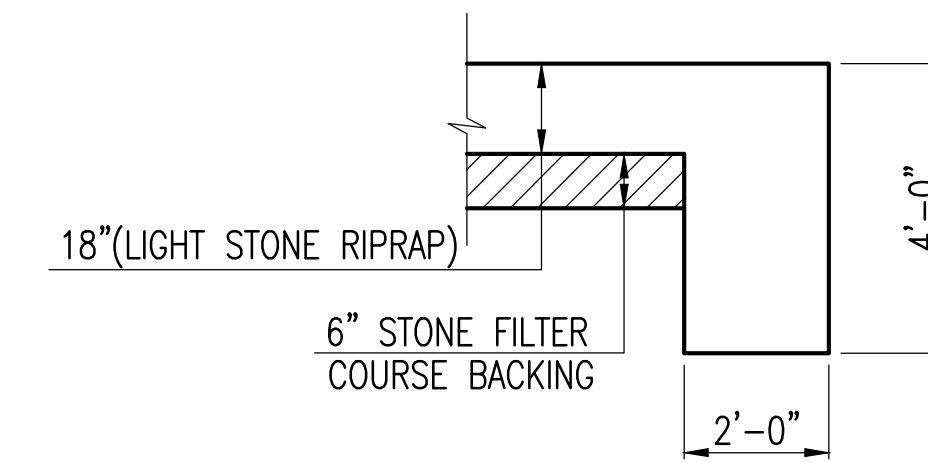
**TYPICAL SECTION THRU TOEWALL**

NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

**HEAVY STONE RIPRAP DETAILS**



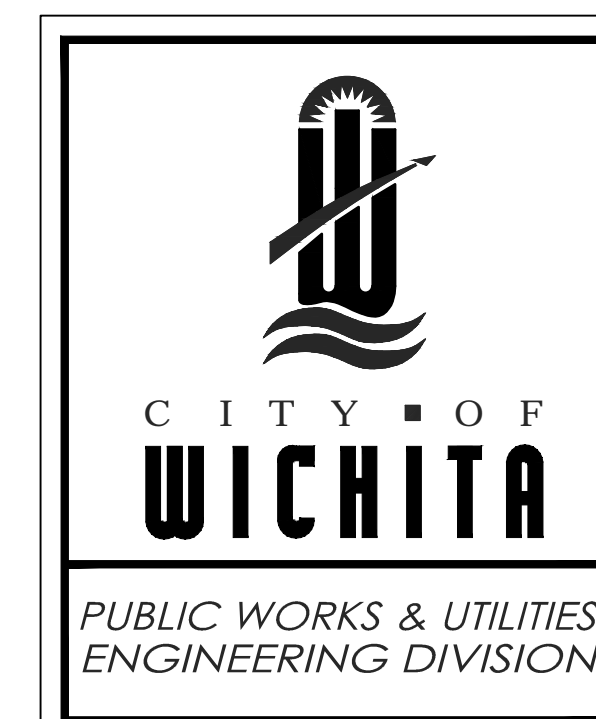
**TYPICAL SECTION THRU TOEWALL**

NO SCALE

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**LIGHT STONE RIPRAP DETAILS**



**MISCELLANEOUS  
DETAILS  
(STORM SEWER)**

CITY ENGINEER

*Gary Janzen, P.E.*

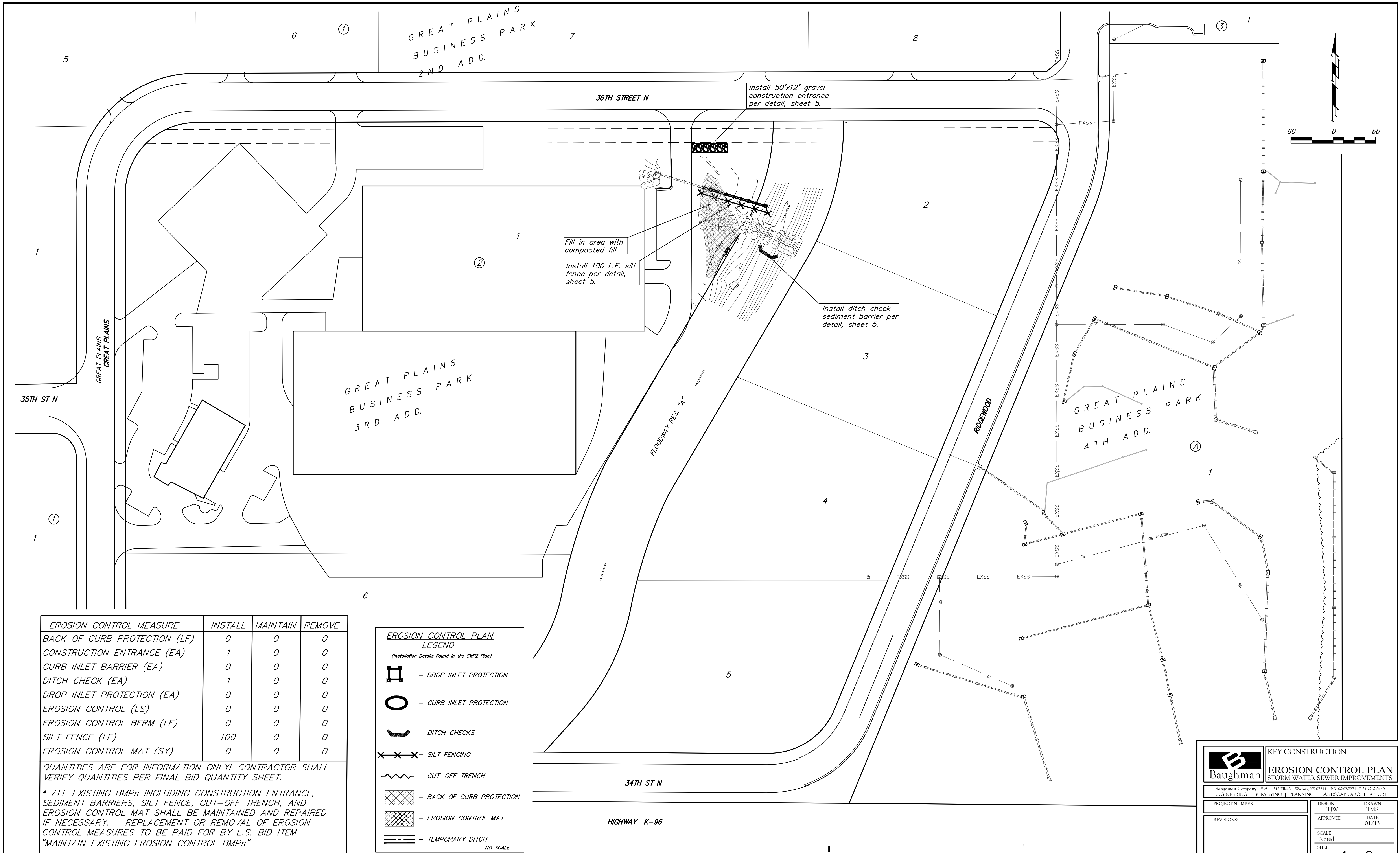
*City Engineer*

PROJECT NUMBER	OCA NUMBER	DATE
		01/13

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

DESIGN	DRAWN
Staff	Staff

SHEET
3 of 6



EROSION CONTROL MEASURE	INSTALL	MAINTAIN	REMOVE
BACK OF CURB PROTECTION (LF)	0	0	0
CONSTRUCTION ENTRANCE (EA)	1	0	0
CURB INLET BARRIER (EA)	0	0	0
DITCH CHECK (EA)	1	0	0
DROP INLET PROTECTION (EA)	0	0	0
EROSION CONTROL (LS)	0	0	0
EROSION CONTROL BERM (LF)	0	0	0
SILT FENCE (LF)	100	0	0
EROSION CONTROL MAT (SY)	0	0	0

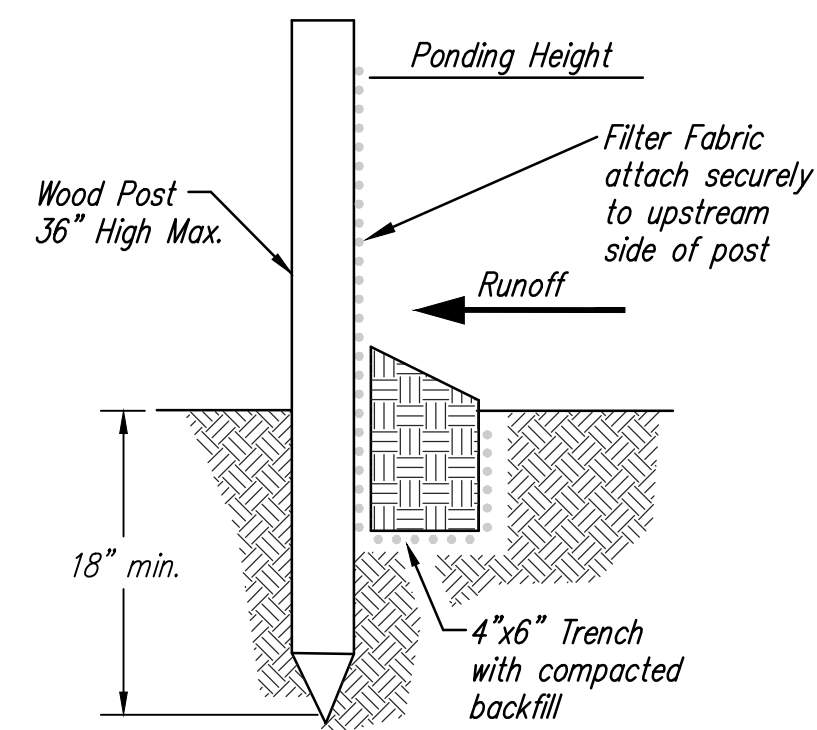
QUANTITIES ARE FOR INFORMATION ONLY! CONTRACTOR SHALL VERIFY QUANTITIES PER FINAL BID QUANTITY SHEET.

\* ALL EXISTING BMPs INCLUDING CONSTRUCTION ENTRANCE, SEDIMENT BARRIERS, SILT FENCE, CUT-OFF TRENCH, AND EROSION CONTROL MAT SHALL BE MAINTAINED AND REPAIRED IF NECESSARY. REPLACEMENT OR REMOVAL OF EROSION CONTROL MEASURES TO BE PAID FOR BY L.S. BID ITEM "MAINTAIN EXISTING EROSION CONTROL BMPs"

**EROSION CONTROL PLAN LEGEND**  
(Installation Details Found in the SWP2 Plan)

- DROP INLET PROTECTION
- CURB INLET PROTECTION
- DITCH CHECKS
- SILT FENCING
- CUT-OFF TRENCH
- BACK OF CURB PROTECTION
- EROSION CONTROL MAT
- TEMPORARY DITCH  
NO SCALE

	KEY CONSTRUCTION	
	<b>EROSION CONTROL PLAN</b> STORM WATER SEWER IMPROVEMENTS	
<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149          ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE</small>		
PROJECT NUMBER	DESIGN	DRAWN
	TJW	TMS
REVISIONS:	APPROVED	DATE
		01/13
	SCALE	
	Noted	
	SHEET	
		<b>4 OF 6</b>
<small>SWS Plans for Key Construction existing building.dwg</small>		



**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.

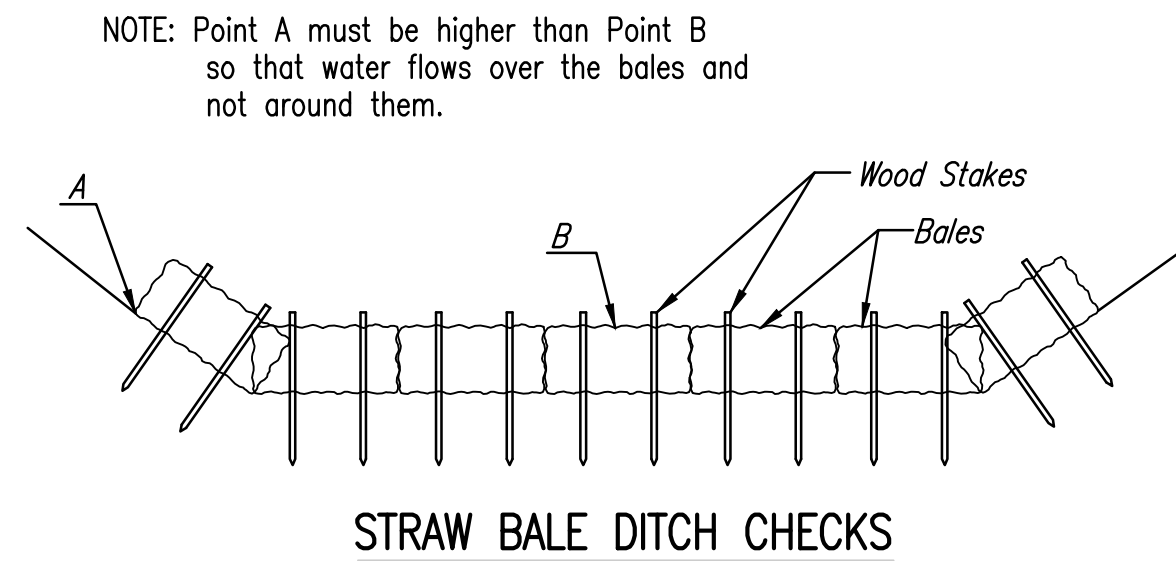
List of common placement/installation mistakes to avoid:

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?



**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".

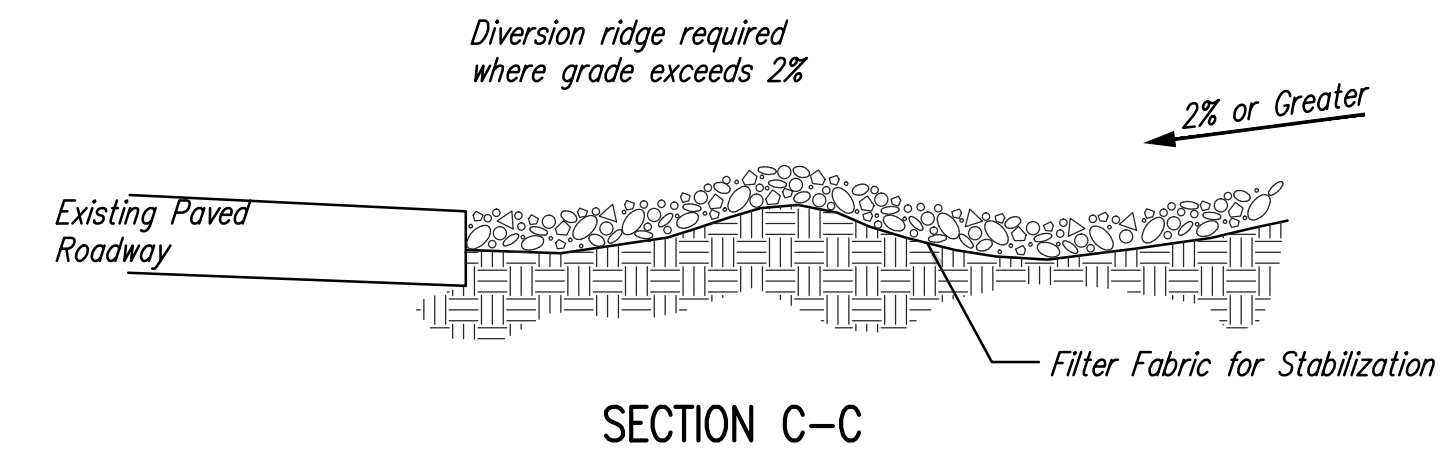
List of common placement/installation mistakes to avoid:

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.

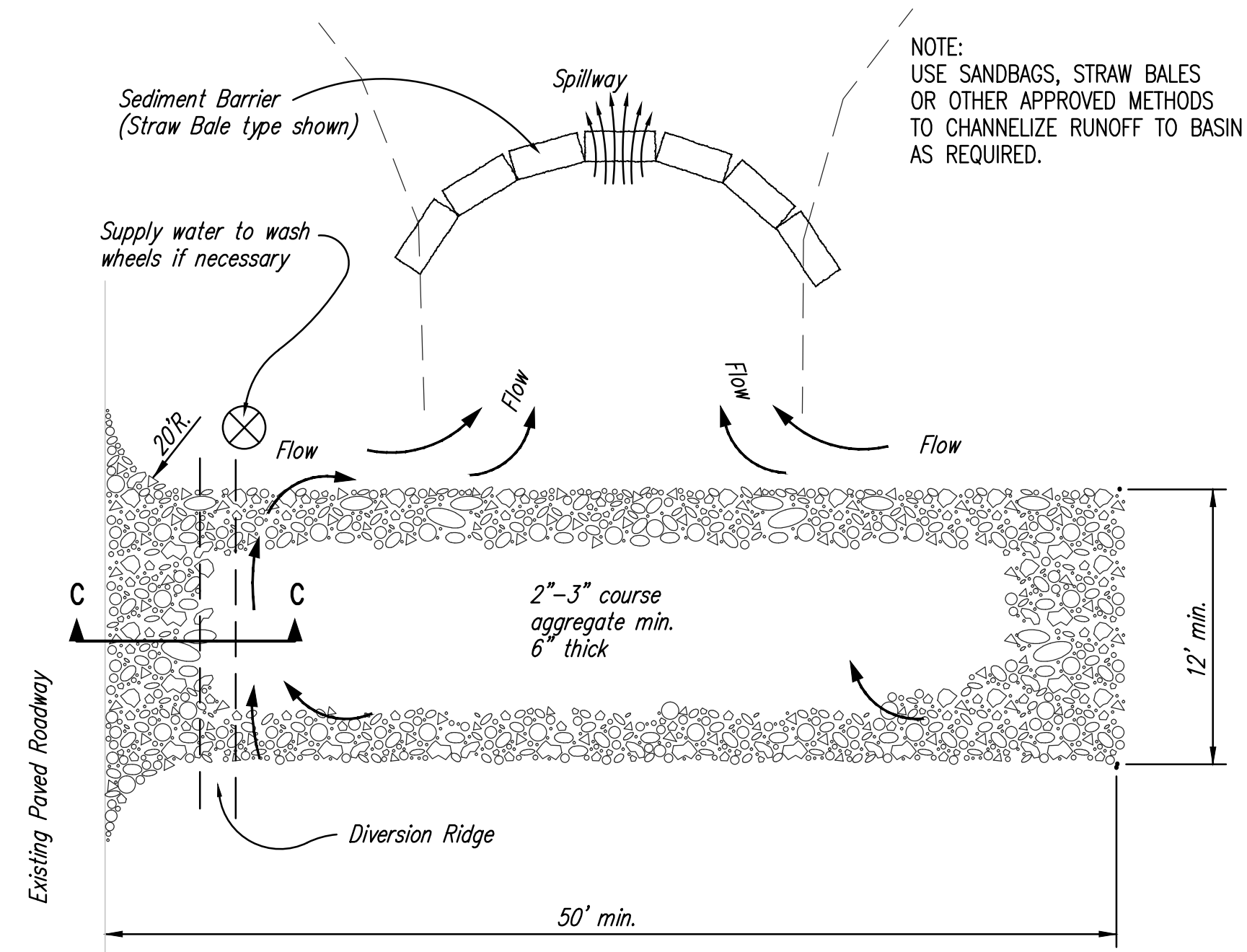
Inspection and Maintenance:

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 C-C**

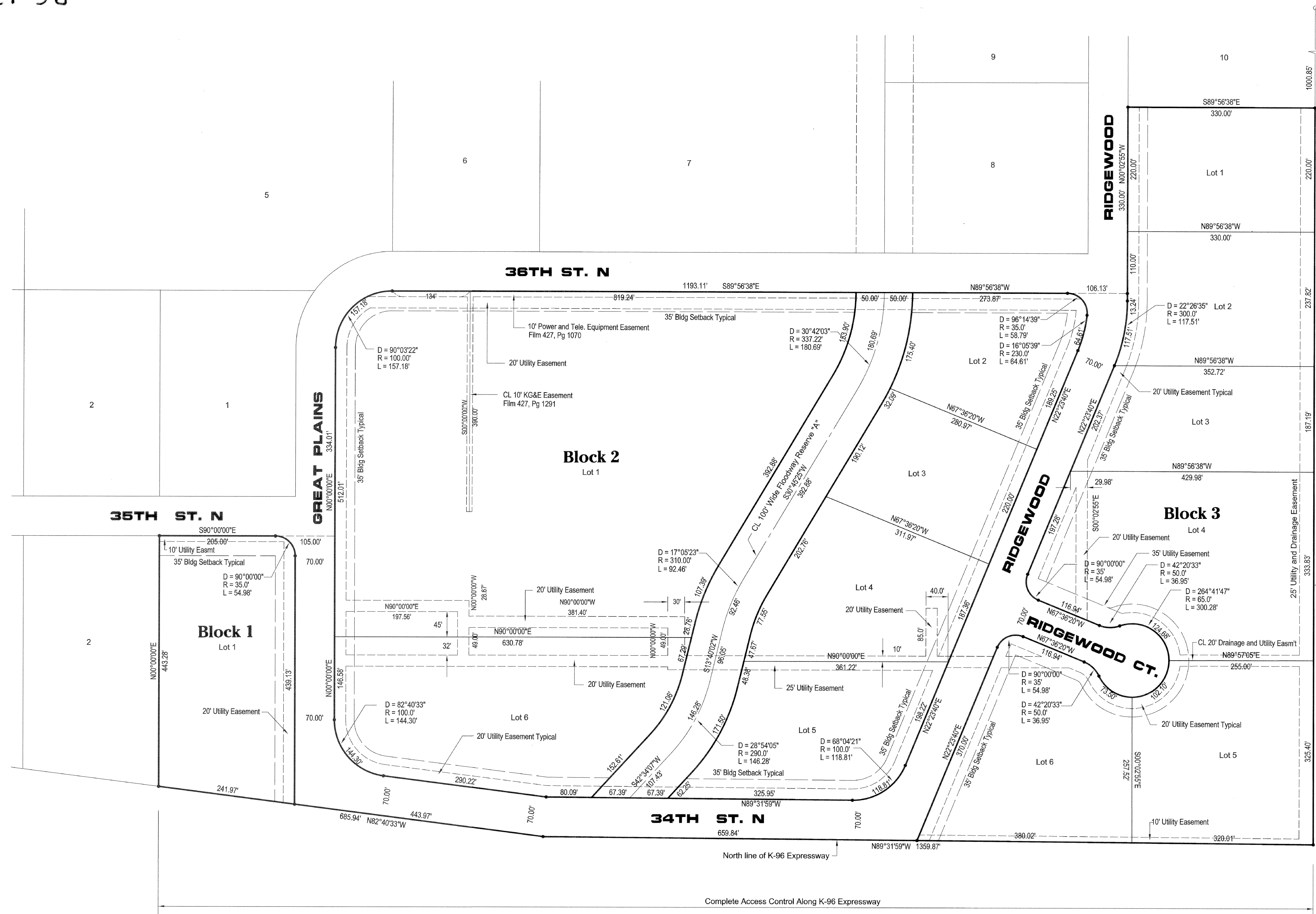


**STABILIZED CONSTRUCTION ENTRANCE**

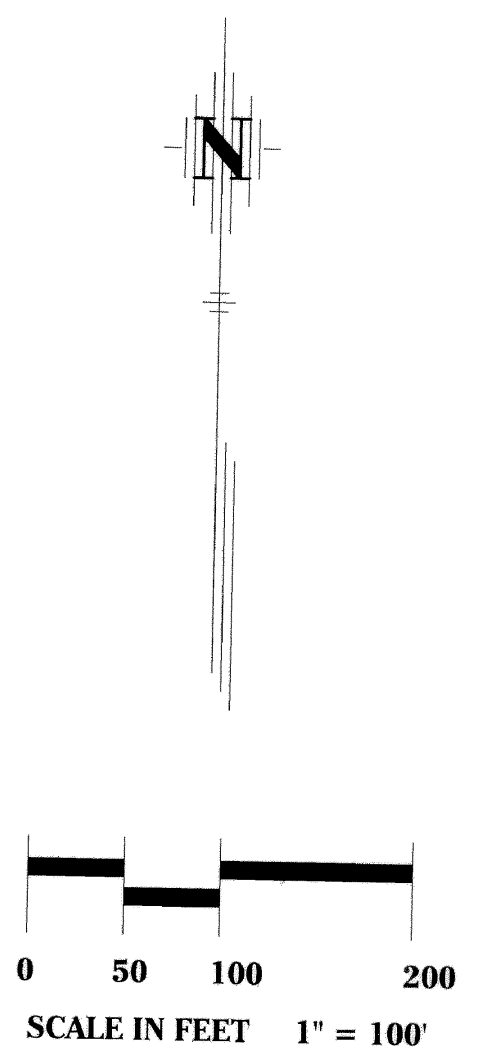
NOTES:

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.

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		<b>5 OF 6</b>
<small>SWS Plans for Key Construction existing building.dwg</small>		



Northeast Corner, Northwest Quarter  
Section 36, T26S, R1E

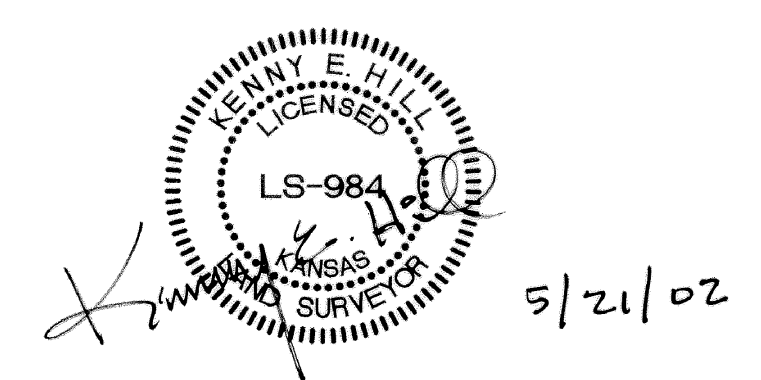


**Benchmarks:**

- City of Wichita Datum
- 1. 100' South of Norwood on SE corner of RCBC Hubguard. COW Benchmark Elevation 161.44
- 2. Southwest corner of Hubguard 100' E. of Oliver on 37th. COW Benchmark Elevation 166.84

**Minimum Building Low Opening Elevations**

- City of Wichita Datum
- Lots 1, 2, 3 and 4, Block 2 - Elevation 179.5
- Lots 5 and 6, Block 2 - Elevation 177.5



# 2094975

HO. 00  
CC.

# Great Plains Business Park 3rd Addition

to Wichita-Sedgwick County, Kansas

