STORM WATER DRAIN

to serve

Highland Springs 2nd Addition

CITY OF WICHITA, KANSAS

Michael E. Lindebak, P.E. City Engineer

Private Project Number

1159 PPS (607861)

Sheet Index

Title Sheet	1
Mass Grading Plan Sheets	2–4
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Soil Erosion BMP's	6–7
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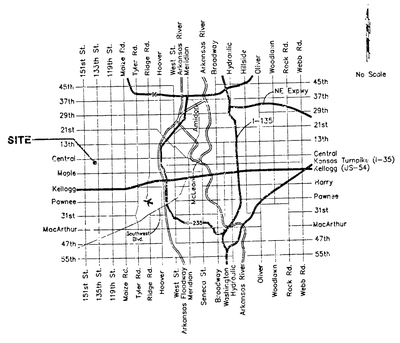
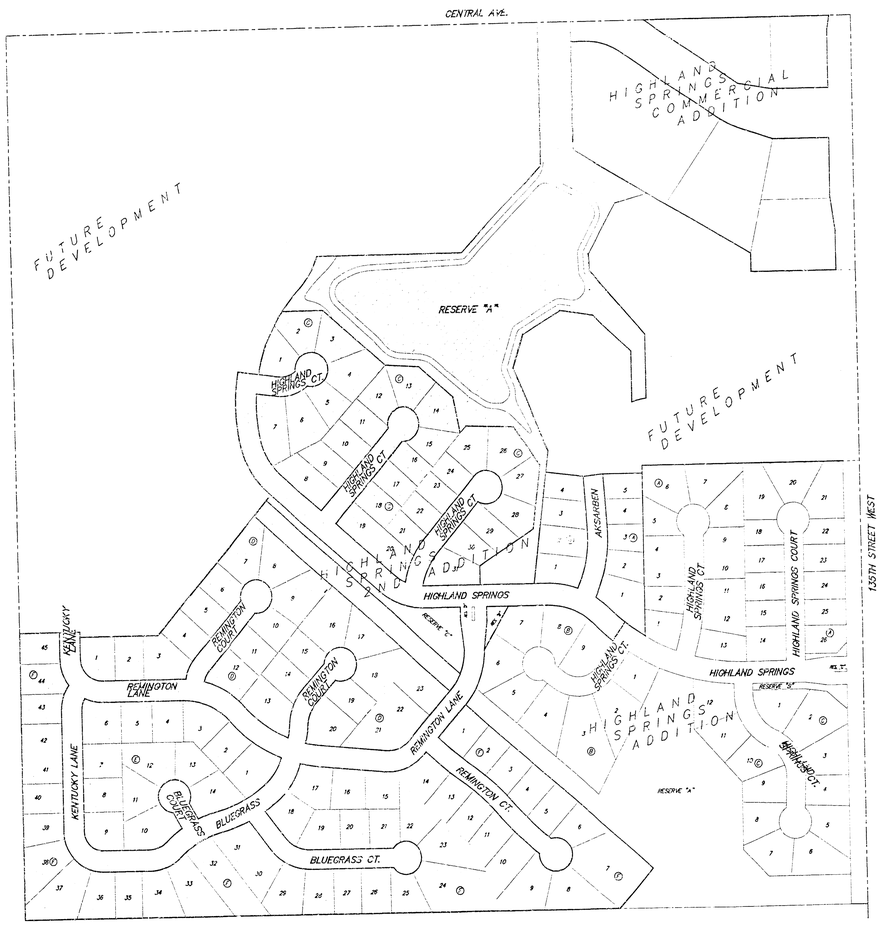
BENCHMARKS:

BENCHMARK:
City of Wichita benchmark disk
32.6' North and 24.5' East of the intersection of 135th St. West and Central Ave., 39.5' Northeast of property iron at section corner.
Elevation = 159.50 City Datum



Vicinity Map



Scale: 1" = 200'

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA
Storm Water Drain VRH 9/28/01

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).

C-1114
BOOKED
9-21-01
MPG

Jason Stewart
9/28/01

GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

   Kansas One-Call 637-2470

   The Contractor must notify the following in case of an emergency:

Cox Communications	262-0661
K.G.& E. Electric Service	383-8600
Kansas Gas Service	383-8600
Peoples Gas Company	942-8350
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Dept.	268-4908
City of Wichita Traffic Engineering	269-4446

2. Underground utility service lines and overhead utility pole lines 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. 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.

4. 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 advance notice prior to start of construction.

5. 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.

6. The 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.

7. 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 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.

8. Limits of earthwork shall match existing ground elevations at the property line unless otherwise noted on the plans with a new finished grade elevation. When a new finished grade elevation is shown, the earthwork shall extend beyond the right-of-way line as shown on cross grading plan and then sloped up or down using permissible slopes to match the existing ground surface.

9. Contractor to seed project according to project notes and specifications.

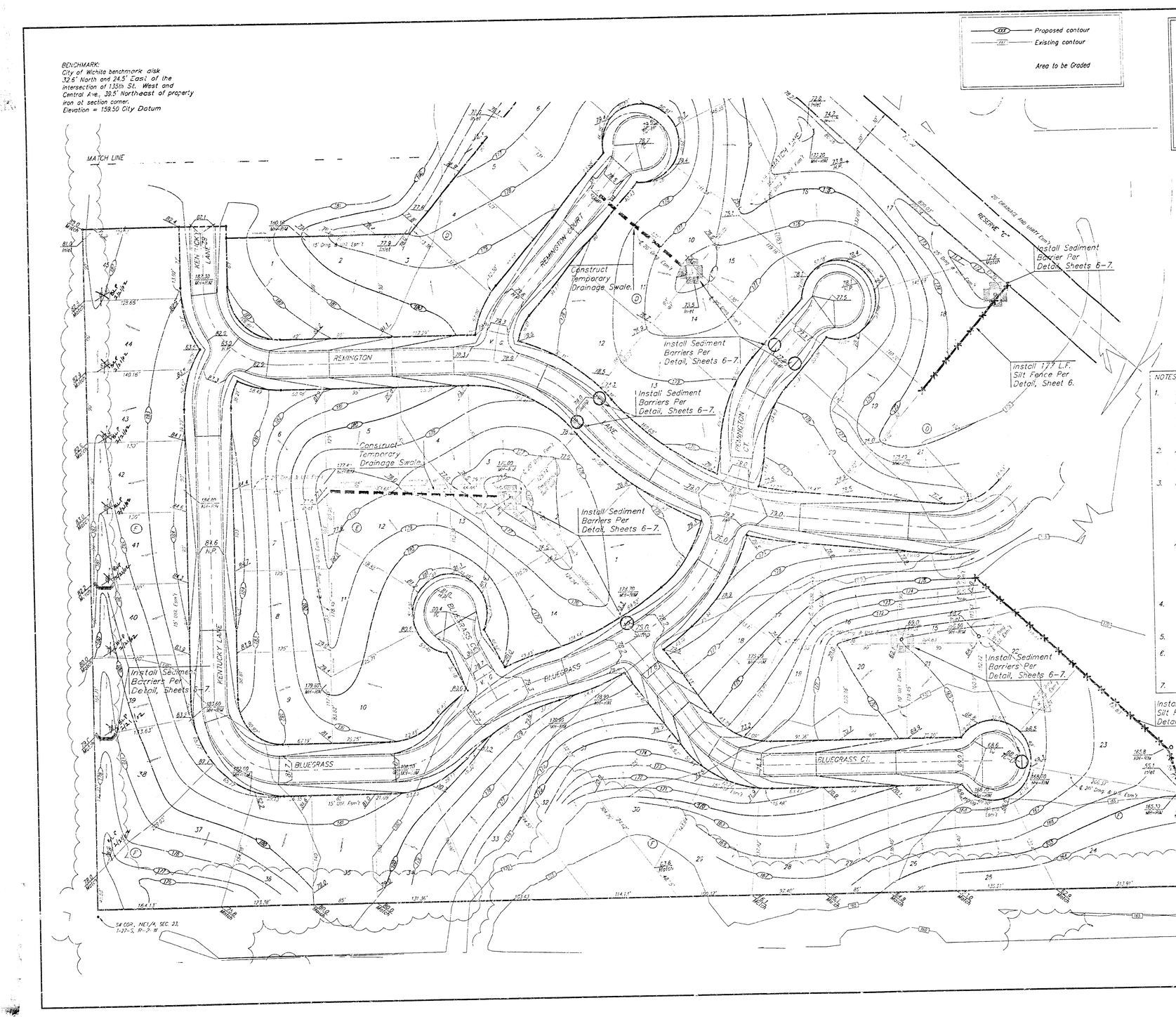
10. This project is subject to a current SWPP Plan. Contractor shall comply with any unusual requirements as necessary for site to be in compliance during construction.

11. Staking coordinates for this project will be made available by Baughman Co., P.A., at the time of construction.

As Built 1/02 KK

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS

BENCHMARK:
City of Wichita benchmark disk 32.6' North and 24.5' East of the intersection of 135th St. West and Central Ave., 39.5' Northeast of property iron at section corner.
Elevation = 159.50 City Datum

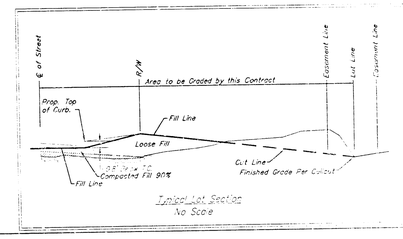


Proposed contour
Existing contour
Area to be Graded

Straw bale barriers for area inlets
Straw bale ditch check
Curb inlet sandbag filters
Temporary swale
Silt fence

MATCH LINE

Scale: 1" = 60'
• = Iron



Typical Lot Section
No Scale

NOTES:

1. Pond bottom and sideslopes below static pool elevation shall be over-excavated 1' and a 1' clay liner shall be compacted to 95% std. density. The plasticity index (P.I.) shall be at least 30. The compaction and P.I. shall be verified during construction. P.I. determination and compaction testing shall be arranged by the contractor at the request of the inspector. Cost shall be incidental to "Site Clearing & Restoration".

2. Any excess excavation shall be stored as shown on this page, out of easements and R/W. Area will be staked by Engineer. Additional area will be staked out if needed.

3. ADD ALTERNATE:
All of Reserve "A" above the static water surface shall be seeded and mulched as follows: (Permanent Seeding)
SEED -- Kansas Premium Fescue Blend; 8#/1000 Sq. Ft.
FERTILIZER -- 10-20-10 Ratio or 12-24-12 Ratio at 350 Lbs./Ac.
MULCH -- 2 Tons Prairie Hay / Acre

All other disturbed areas not in street R/W are to be seeded and mulched as follows: (Temporary seeding)
SEED -- Rye grass (PLS)--3#/1000 Sq. Ft. and
Kansas Premium Fescue Blend; 3#/1000 Sq. Ft.
FERTILIZER -- 10-20-10 Ratio or 12-24-12 Ratio at 350 Lbs./Ac.
MULCH -- 2 Tons Prairie Hay / Acre

4. Install Erosion Control Mat from 1' above the water surface to 18' up the bank. Install Light Stone Rip-rap from 3' below the water surface to 1' above the water surface.

5. Baughman Company will provide staking information at the time of construction.

6. Contractor to strip top 3" of soil before mass grading and stockpile. Top soil stockpile to be redistributed over entire disturbed area excluding street right-of-way to achieve planned grade.

7. Compaction of 90% shall be obtained in all fill areas.

EARTH WORK TOTALS

	C.Y. Fill	C.Y. Cut
Mass Grading	61,613	28,017
Pond Construction	287	114,813
Total Earthwork	61,900	142,830

Earthwork quantities do not include correction factors and are for reference only. All cost associated with mass grading shall be included in the bid item "Mass Grading".

All Elev's within 0.20' of plan grade unless noted otherwise
As Built 2'02 KK

MASS GRADING PLAN

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, ...

PROJECT NUMBER
1159 PPS (907861)

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
BLP/BLG	BLG		09/01		2 of 9

BENCHMARK:
City of Wichita benchmark disk
32.6' North and 24.5' East of the
intersection of 13Sth St. West and
Central Ave., 39.5' Northeast of property
iron at section corner.
Elevation = 1589.50 City Datum

Straw bale barriers for area inlets

Straw bale ditch check

Curb inlet sandbag filters

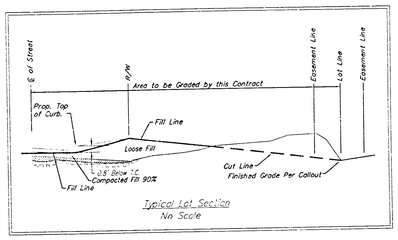
Temporary swale

Silt fence

Proposed contour

Existing contour

Area to be Graded



Typical Lot Section
No Scale



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   MULCH -- 2 Tons Prairie Hay / Acre

   All other disturbed areas not in street R/W are to be seeded and mulched as follows: (Temporary seeding)
   SEED -- Rye grass (PLS)-- 3#/1000 Sq. Ft. and Kansas Premium Fescue Blend; 3#/1000 Sq. Ft.
   FERTILIZER -- 10-20-10 Ratio or 12-24-12 Ratio at 350 Lbs./Ac.
   MULCH -- 2 Tons Prairie Hay / Acre

4. Install Erosion Control Mat from 1' above the water surface to 18' up the bank. Install Light Stone Rip-rap from 3' below the water surface to 1' above the water surface.

5. Baughman Company will provide staking information at the time of construction.

6. Contractor to strip top 3" of soil before mass grading and stockpile. Top soil stockpile to be redistributed over entire disturbed area excluding street right-of-way to achieve planned grade.

7. Compaction of 90% shall be obtained in all fill areas.

EARTH WORK TOTALS

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All Elev's within 0.2' of plan grade unless noted otherwise.
As Built 2/02 KK

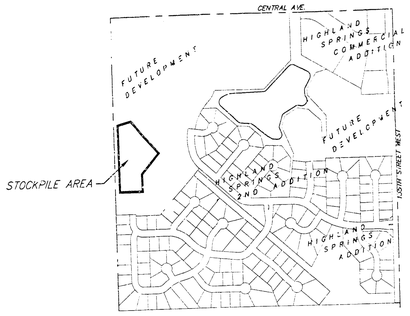
MASS GRADING PLAN

BAUGHMAN COMPANY P.A.
ENGINEERING SURVEYING & PLANNING
3500 EAST 13TH STREET NORTH • WICHITA, KANSAS 67208

PROJECT NUMBER	SHEET
1159 PPS (607891)	3 of 9

DESIGN	DRAWN	APPROVED	DATE	SCALE
B.H./P.E.G.	P.E.G.		09-01-	

BENCHMARK:
City of Wichita benchmark disk
32.6' North and 24.5' East of the
intersection of 135th St. West and
Central Ave., 39.5' Northeast of property
iron at section corner.
Elevation = 1,[illegible]30 City Datum



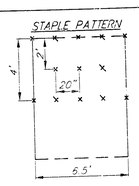
STAPLE PATTERN "D"

3-1/2 staples per sq. yd. using 6-inch, 11 ga. wire "U" staples. 8-inch staples and longer may be used for loose soils. 9 ga. staples or heavier may be necessary in hard or rocky soils.

Contractor shall follow manufacturers installation instructions regarding overlap dimensions. The overlap shall have a minimum dimension of three inches (3").

Erosion control mat.

STAPLE PATTERN



Straw bale barriers for area inlets

Straw bale ditch check

Curb inlet sandbag filters

Temporary swale

Silt fence

Scale: 1" = 60'
• = Iron

Install 3,755 L.F. Silt Fence Per Detail, Sheet 6.

Construct weir per detail, sheet 5.

Install 1,089 S.Y. Light Stone rip-rap. See detail, this sheet.

Construct Pond Per Detail, This Sheet.

Install 3,246 S.Y. North American Green Type S75 Erosion Control Mat or Approved Equivalent (See Staple Pattern) to be Installed per Manufacturers Directions.

RESERVE "A"

RESERVE "B"

RESERVE "C"

RESERVE "D"

RESERVE "E"

RESERVE "F"

RESERVE "G"

RESERVE "H"

RESERVE "I"

RESERVE "J"

RESERVE "K"

RESERVE "L"

RESERVE "M"

RESERVE "N"

RESERVE "O"

RESERVE "P"

RESERVE "Q"

RESERVE "R"

RESERVE "S"

RESERVE "T"

RESERVE "U"

RESERVE "V"

RESERVE "W"

RESERVE "X"

RESERVE "Y"

RESERVE "Z"

HIGHLAND SPRINGS ST.

MATCH LINE

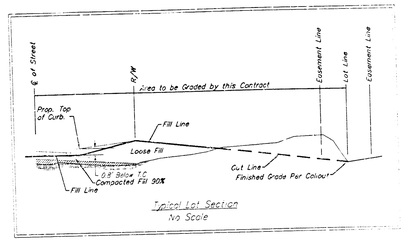
MATCH LINE

POND DATA:
STATIC POOL ELEVATION: 164.0 City Datum
BOTTOM ELEVATION: 156.0 City Datum
100 YEAR DESIGN WATER SURFACE: 166.9 City Datum

Proposed contour

Existing contour

Area to be Graded



Typical Lot Section
No Scale

EARTH WORK TOTALS

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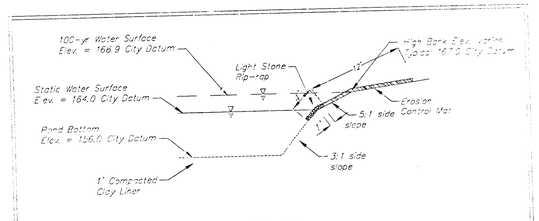

Typical Section Detail
(No Scale)

NOTES:

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2. Any excess excavation shall be stored as shown on this page, out of easements and R/W. Area will be staked by Engineer. Additional area will be staked out if needed.
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   MULCH -- 2 Tons Prairie Hay / Acre
   All other disturbed areas not in street R/W are to be seeded and mulched as follows: (Temporary seeding)
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5. Baughman Company will provide staking information at the time of construction.
6. Contractor to strip top 3" of soil before mass grading and stockpile. Top soil stockpile to be redistributed over entire disturbed area excluding street right-of-way to achieve planned grade.
7. Compaction of 90% shall be obtained in all fill areas.

All Elev's within 0.20' of Plan grade unless noted Otherwise.

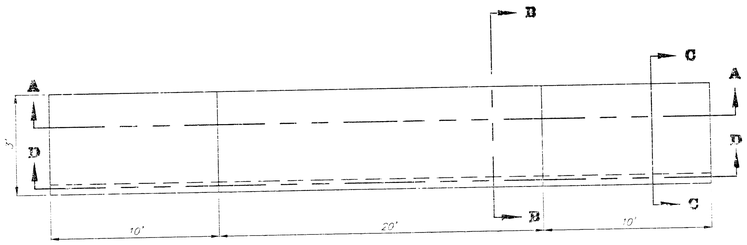
As Built 2-02 KK

MASS GRADING PLAN
PHASE II

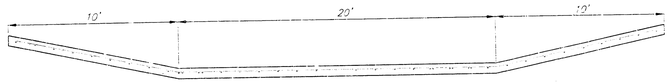
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-2691 • 125 EAST DOUGLAS • WICHITA, KANSAS 67202

PROJECT NUMBER	SHEET
1159 PPS (907891)	4 OF 9

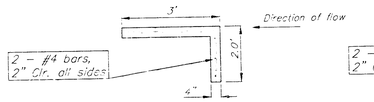
DESIGN	DRAWN	APPROVED	DATE	SCALE
RLP/BLG	BLG		09-01	



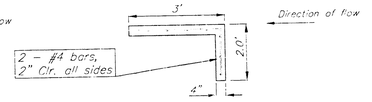
Top View
No Scale



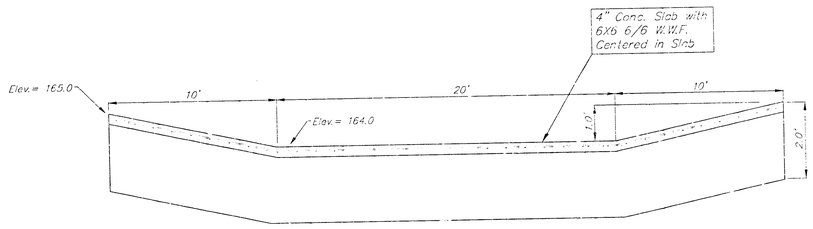
Section A-A
No Scale



Section B-B
No Scale



Section C-C
No Scale



Section D-D
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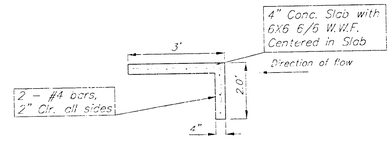


End View
No Scale

General Notes

1. THE BID SHALL INCLUDE ALL CONCRETE, REINFORCEMENT, REMOVAL, LABOR, EXCAVATION, AND ALL OTHER INCIDENTALS NECESSARY TO CONSTRUCT CONCRETE WEIR.
2. ALL EXPOSED CONCRETE EDGES SHALL BE BEVELED 3/4"
3. ALL REINFORCING STEEL TO HAVE MINIMUM 1-1/2" CONC. COVER.

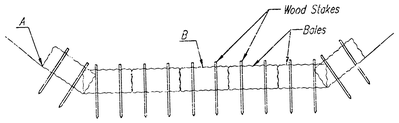
WEIR DEATIL

BAUGHMAN COMPANY P.A.

PROJECT NUMBER
1159 PPS (807681)

DESIGN	DRAWN	APPROVED	DATE	SCALE	
TMG	TMG				5 / 7

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.
Checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.
The following table provides check spacing for a given ditch grade:

Ditch Check Spacing

Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	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".

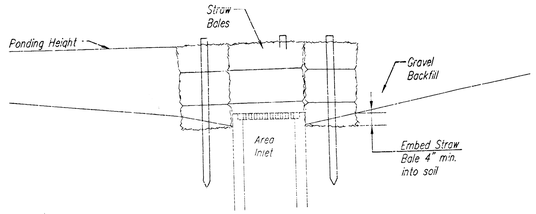
List of common placement/installation mistakes to avoid:

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.

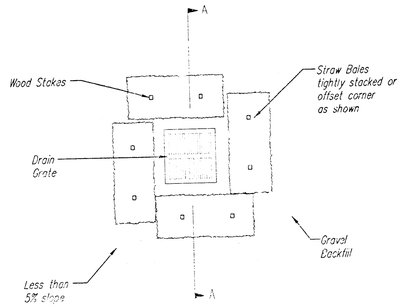
Inspection and Maintenance:

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.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet.
When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide.
Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends.
Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep.
Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

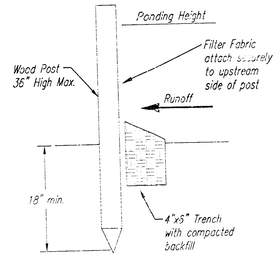
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour.
Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

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 8" 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?

CITY OF WICHITA

SOIL EROSION CONTROL DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER: 1159 PPS (607861)
ZAN NO.:

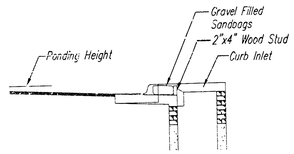
DATE: SEP 2001

SHEET 6 OF 9

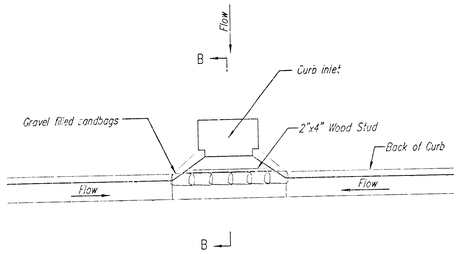
* FOR INFORMATION ONLY

5,125 L.F. SILT FENCE
10 EA. CURB INLET FILTERS
5 EA. AREA INLET FILTERS
5 EA. STRAW BALE DITCH CHECKS
1 EA. STABILIZED CONSTRUCTION ENTRANCE

* TO BE PAID FOR AS THE LUMP SUM BID ITEM "EROSION CONTROL BMP'S"

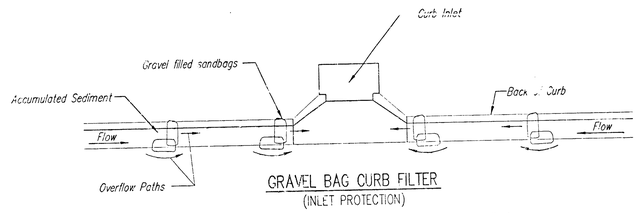


SECTION B-B



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.

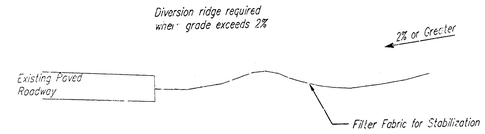
Spacing:

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

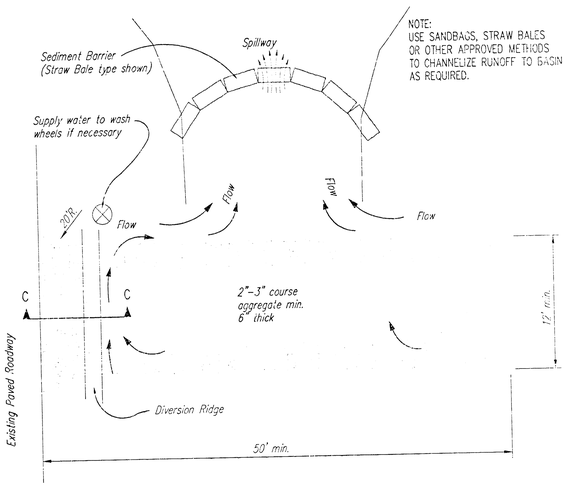
GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

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.

CITY OF WICHITA

SOIL EROSION BMP DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER: 1159 PPS (607861)
SUB NO:

DATE: SEP 2001

HIGHLAND SPRINGS 2ND ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

We the undersigned, holders of a mortgage on the above described property, do hereby consent to this plat of "HIGHLAND SPRINGS 2ND ADDITION", Wichita, Sedgwick County, Kansas.

Prairie State Bank

Carmen Campbell, VP
CARMEN CAMPBELL (Title)

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this 23rd day of August, 1999, by Carmen Campbell, Vice Pres. of the Prairie State Bank, on behalf of the bank.

REBECCA J. MANTHEY
Notary Public - State of Kansas
My Appt. Expires 10-02-01

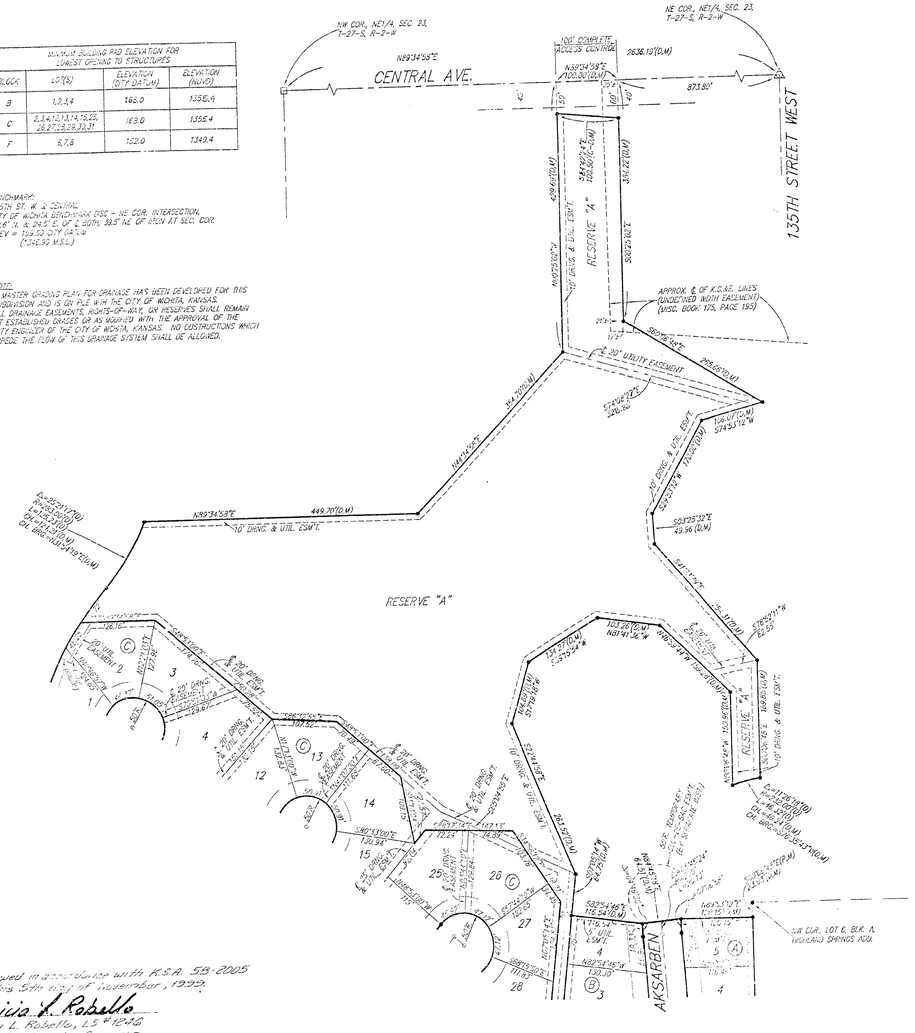
Rebecca J. Manthey, Notary Public
REBECCA J. MANTHEY

My App't. Exp. 10-02-01

MINIMUM BUILDING PAD ELEVATION FOR LOWEST GROUND TO STRUCTURES			
BLOCK	LOT(S)	ELEVATION (CITY DATUM)	ELEVATION (NGVD)
B	1,2,3,4	1186.0	1358.4
C	2,3,4,12,13,14,15,25, 26,27,28,29,30,31	1189.0	1355.4
F	6,7,8	1182.0	1349.4

BENCHMARK:
135TH ST. W. & CENTRAL
CITY OF WICHITA BENCHMARK DISC - NE. COR. INTERSECTION, 33.6' N. & 24.5' E. OF 2.5SUN, 39.5' NE OF IRON AT SEC. COR.
ELEV = 1329.50 CITY DATUM
(1341.50 M.S.L.)

NOTE:
A MASTER GRADING PLAN FOR DRAINAGE HAS BEEN DEVELOPED FOR THIS SUBDIVISION AND IS ON FILE WITH THE CITY OF WICHITA, KANSAS. ALL DRAINAGE EASEMENTS, RIGHTS-OF-WAY, OR RESERVES SHALL REMAIN AT ESTABLISHED GRADES OR AS MODIFIED WITH THE APPROVAL OF THE CITY ENGINEER OF THE CITY OF WICHITA, KANSAS. NO OBSTRUCTIONS WHICH IMPEDE THE FLOW OF THIS DRAINAGE SYSTEM SHALL BE ALLOWED.



Reviewed in accordance with K.S.A. 58-2005 on this 5th day of November, 1999.

Tricia L. Robello
Tricia L. Robello, L.S. #1246
County Survey
Sedgwick County, Kansas

LEGEND:

- ● = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- ○ = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- △ = STONE W/ #4 REBAR ON S. SIDE (FOUND)
- △ = 1/2" IRON OVER ℄ STONE (FOUND)
- ⊠ = 3/4" IRON (FOUND)
- ◉ = #4 REBAR W/ "L.T.L.S.L." CAP (FOUND)
- □ = STONE W/ #5 REBAR ON W. SIDE (FOUND)

(M) = MEASURED
(D) = DESCRIBED
(P) = PLATTED
(C-P) = CALCULATED PER PLATTED INFO.

0 100 200

State of Kansas) SS
Sedgwick County)

We, Baughman Company, P.A. Surveyors in aforesaid County and State do hereby certify that we have surveyed and platted "HIGHLAND SPRINGS 2ND ADDITION", Wichita, Sedgwick County, Kansas, and that the accompanying plat is a true and correct exhibit of the property surveyed, described as follows: That part of the NE1/4 of Sec. 23, Twp. 27-S, R-2-W of the 6th P.M., Sedgwick County, Kansas, further described as follows: Commencing at the NE corner of Lot 21, Block A, Highland Springs Addition, Wichita, Sedgwick County, Kansas; thence S89°43'32"W along the north line of said Block A, 625.00 feet to the NW corner of Lot 6 in said Block A; thence S00°06'48"E along the west line of said Block A, 23.03 feet for a point of beginning; thence continuing S00°06'48"E along the west line of said Block A, 480.05 feet to the SW corner of Lot 1 in said Block A; thence northwesterly along the northeasterly line of Highland Springs as dedicated in said Highland Springs Addition, said northeasterly line being a curve to the right, having a central angle of 07°17'40" and a radius of 592.00 feet, an arc distance of 75.37 feet, (having a chord length of 75.32 feet bearing N56°07'49"W); thence S34°42'33"W, 66.07 feet to the most easterly corner of Lot 9, Block B, in said Highland Springs Addition; thence northwesterly along the north line of said Block B, said north line being a curve to the right, having a central angle of 06°17'50" and a radius of 658.00 feet, an arc distance of 72.32 feet, (having a chord length of 72.28 feet bearing N49°36'58"W), to the P.R.C. of a curve to the left; thence northwesterly and westerly along said curve, having a central angle of 43°46'12" and a radius of 217.00 feet, an arc distance of 165.77 feet, (having a chord length of 161.77 feet bearing N63°21'09"W), to the P.T. of said curve; thence S89°45'45"W along the north line of said Block B, 117.79 feet to the deflection corner in the rear line of Lot 7 in said Block B; thence S30°39'28"W along the west line of said Block B, 146.14 feet to the deflection corner in the rear line of Lot 6 in said Block B, said deflection corner being the P.C. of a curve to the right; thence southerly and southwesterly along said curve, having a central angle of 41°49'57" and a radius of 240.79 feet, an arc distance of 175.80 feet, (having a chord length of 171.93 feet bearing S20°40'44"W), to the P.T. of said curve; thence S41°35'42"W along a line of Reserve "A" in said Highland Springs Addition, 3.02 feet to the most westerly corner of said Reserve "A"; thence S48°53'00"E along a line of said Reserve "A", 466.63 feet to a deflection corner in said line; thence S48°44'18"E along a line of said Reserve "A", 296.52 feet to a deflection corner in said line; thence S41°35'42"W along a line of said Reserve "A", 160.34 feet to a corner of said Reserve "A", said corner being on the south line of said NE1/4; thence S89°52'09"W along the south line of said NE1/4, 1857.71 feet to the SW corner of said NE1/4; thence N00°18'55"W along the west line of said NE1/4, 860.00 feet; thence N89°41'05"E, 192.02 feet; thence S00°18'55"E, 15.00 feet; thence N89°41'05"E, 243.05 feet; thence N41°35'42"E, 346.45 feet; thence N48°53'00"W, 14.69 feet to the P.C. of a curve to the right; thence northwesterly along said curve, having a central angle of 36°24'50" and a radius of 258.00 feet, an arc distance of 159.47 feet, (having a chord length of 156.94 feet bearing N31°10'35"W), to the P.C.C. of a curve to the right; thence northerly along said curve, having a central angle of 23°55'20" and a radius of 533.00 feet, an arc distance of 222.54 feet, (having a chord length of 220.93 feet bearing N01°30'30"W); thence S82°39'58"E, 66.11 feet to a point on a curve to the right; thence northeasterly along said curve, having a central angle of 33°41'15" and a radius of 467.30 feet, an arc distance of 274.58 feet, (having a chord length of 270.65 feet bearing N27°44'13"E), to the P.R.C. of a curve to the left; thence northeasterly along said curve, having a central angle of 25°21'17" and a radius of 283.00 feet, an arc distance of 125.23 feet, (having a chord length of 124.21 feet bearing N31°54'19"E); thence N89°34'58"E, 449.70 feet; thence N44°34'58"E, 354.70 feet; thence N00°25'02"W, 429.69 feet to a point on the north line of said NE1/4; thence N89°34'58"E along the north line of said NE1/4, 100.00 feet; thence S00°25'02"E, 384.22 feet; thence S60°06'48"E, 265.66 feet; thence S74°53'12"W, 106.07 feet; thence S29°53'12"W, 170.00 feet; thence S03°25'32"E, 49.96 feet; thence S41°33'39"E, 254.31 feet; thence S00°06'48"E, 189.85 feet to a point on a curve to the left; thence southwesterly along said curve, having a central angle of 11°26'18" and a radius of 232.00 feet, an arc distance of 46.32 feet, (having a chord length of 46.24 feet bearing S76°35'43"W); thence N00°06'48"W, 150.96 feet; thence N46°39'44"W, 159.28 feet; thence N61°41'36"W, 103.20 feet; thence S39°15'54"W, 134.27 feet; thence S17°19'16"W, 104.69 feet; thence S22°44'58"E, 263.52 feet; thence S07°05'14"W, 64.75 feet; thence S82°54'46"E, 116.54 feet; thence N84°45'16"E, 64.51 feet; thence N30°53'12"E, 120.15 feet to the point of beginning, all being subject to road rights-of-way of record.

Michael G. Conrey L.S.-1318 8-12-99
Michael G. Conrey, Surveyor

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be platted into Lots, Blocks, Streets, and Reserves to be known as "HIGHLAND SPRINGS 2ND ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage and utility easements are hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. The drainage easements are hereby granted as indicated for drainage purposes. The streets are hereby dedicated to and for the use of the public. Reserve "A" is hereby reserved for drainage purposes, ponds, landscaping, berms, open space, recreational areas, swimming pools and related facilities, sidewalks, and utilities as confined to easements. Reserve "B" is hereby reserved for landscaping, entry monuments, berms, open space, signage, and utilities. Reserve "C" is hereby reserved for landscaping, entry monuments, berms, open space, utilities as confined to easements, and pipelines as confined to easement. Reserve "D" is hereby reserved for landscaping, entry monuments, streets, utilities, and signage. Reserves "A", "B", "C", and "D" shall be owned and maintained by the homeowners association for the addition. All abutters rights of access to or from Central Ave. over and across the north line of Reserve "A" are hereby granted to the City of Wichita, Kansas. The Minimum Building Pad Elevations for the lowest opening to the structures shall be as indicated on the face of the plat.

Kelsey Development, Inc.

Paul E. Kelsey, President
Paul E. Kelsey

John E. Dugan Marilyn K. Dugan
John E. Dugan Marilyn K. Dugan

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this 16TH day of AUGUST, 1999, by Paul E. Kelsey, President of Kelsey Development, Inc., on behalf of the corporation.

JUDITH M. TERHUNE
Notary Public - State of Kansas
My Appt. Expires 11-7-2001

Judith M. Terhune, Notary Public
JUDITH M. TERHUNE

My App't. Exp. 11-7-2001

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this 16TH day of AUGUST, 1999, by John E. Dugan and Marilyn K. Dugan, husband and wife.

JUDITH M. TERHUNE
Notary Public - State of Kansas
My Appt. Expires 11-7-2001

Judith M. Terhune, Notary Public
JUDITH M. TERHUNE

My App't. Exp. 11-7-2001

This plat of "HIGHLAND SPRINGS 2ND ADDITION", Wichita, Sedgwick County, Kansas has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 29TH day of April, 1953.

Wichita-Sedgwick County Metropolitan Area Planning Commission

William C. Johnson, Chairman

Marvin S. Krout, Secretary

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 28TH day of September, 1999.

Bob Knight, Mayor

Pat Burnett, City Clerk
Pat Burnett

Entered on transfer record this 19th day of April, 2000

James Alford, County Clerk
James Alford

State of Kansas) SS
Sedgwick County)

This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 20th day of April, 2000 at 10:16 o'clock A M; and is duly recorded.

Bill Meek, Register of Deeds
Bill Meek

Linda Kizzire, Deputy
Linda Kizzire

PAGE 1 OF 2

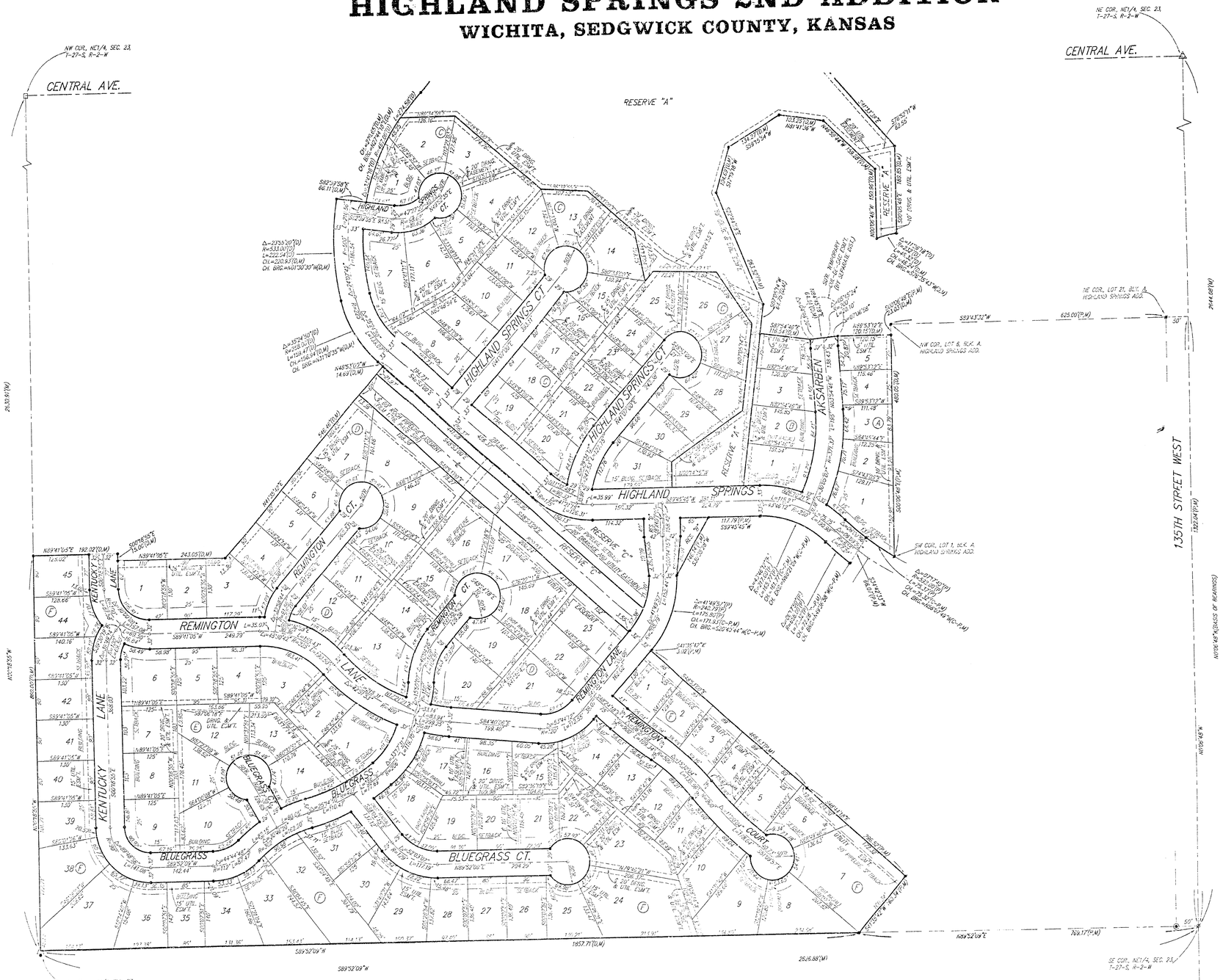
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

PC 112-3A

PC 112-3B

HIGHLAND SPRINGS 2ND ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



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LEGEND:

- ■ = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- • = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- △ = STONE W/ #4 REBAR ON S. SIDE (FOUND)
- △ = 1/2" IRON OVER ℄ STONE (FOUND)
- ⌀ = 3/4" IRON (FOUND)
- ◉ = #4 REBAR W/ "T.T.L.S.L." CAP (FOUND)
- □ = STONE W/ #3 REBAR ON W. SIDE (FOUND)

(M) = MEASURED
(D) = DESCRIBED
(P) = PLATTED
(C-P) = CALCULATED PER PLATTED INFO.

MINIMUM BUILDING PAD ELEVATION FOR LOWEST MEANG TO STRUCTURES			
BLOCK	LOT(S)	ELEVATION (CITY DATUM)	ELEVATION (NGVD29)
B	1,2,3,4	168.0	1352.4
C	2,3,4,12,13,14,15,25, 26,27,28,29,30,31	162.0	1312.4
F	6,7,8	152.0	1312.4

BENCHMARK:
135TH ST. W. & CENTRAL
CITY OF WICHITA BENCHMARK DISC - NE COR. INTERSECTION
32.6' N. & 24.3' E. OF C. BOTH 33.8' NE OF IRON AT SEC. COR.
ELEV = 159.50 CITY DATUM
(1346.90 M.S.L.)

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BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

PC 112-3B