STORM WATER DRAIN NO. 179

EQUESTRIAN ESTATES ADDITION- PHASE 2

TO

THE CITY OF WICHITA, KANSAS

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

PROJECT NO. 468-83319
OCA NO. 751410

GENERAL NOTES:

1. Utility service lines, poles, valve boxes, meters and etc. are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor. 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.

2. Contractor will be required to provide a minimum advance notice of twenty-four (24) 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:

Cox Communications	262-4270 or 263-2061
Kansas Gas	263-7511
Westar Energy	264-1141
Aquila Networks	942-8350 or 263-8161
Southwestern Bell Tel. Co.	1-800-571-2611
City of Wichita Water Department	268-4908

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 that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.

   All suitble excavation shall be wasted on low lying lots within the addition before any material is disposed of off site.

   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 stockniled 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 be responsible for preserving property irons. The Contractor will be required to reestablish any property irons which are damaged or destroyed by his construction operations. Such irons shall be reestablished by a licensed land surveyor in accordance with state laws.

6. Trees are to be removed as needed. The cost is subsidiary to site clearing costs.

7. All lawn/turf areas disturbed by construction shall be restored with the same sod as existing. Restoration of disturbed areas shall include, but not be limited to, top soil preparation and sodding. All sodding work shall be in accordance with City Standard Specifications and the City Administrative Regulation No. AR78, which governs cleanup and restoration or replacement following construction. The "Recapitulation of Quantities" will show the estimated Square Yards of disturbed lawn/turf area to be sodded, with a bid item for the same. When the weather/season prevents the installation of sod, the Contractor shall be responsible for installing Erosion Control Blanket (Curlex I, or approved equal) at the back of curb (8" wide minimum). All costs for erosion mat installation shall be subsidiary to "Site Restoration".

8. The Contractor shall reseed all non-lawn/turf areas disturbed by construction with a mixture of Ryegrass (applied at a rate of 200 lbs per acre) and Fescue, Bermuda, or Buffalo grass, depending on the soil conditions (applied per Standard Specifications). Pure Nitrogen fertilizer shall also be applied at a rate of 1.5 lbs per thousand square feet. The seed shall be watered with deep soaking every two (2) weeks during dry periods until a mature stand of grass is obtained. The "Recapitulation of Quantities" will show the estimated Square Yards of disturbed non-lawn/turf area to be seeded, with a bid item for the same. The permanent seeding may be omitted only if sodding is required in accordance with previous General Note. The Contractor shall be responsible for installing Erosion Control Blanket (Curlex I, or approved equal) at the back of curb, to and including the the limits of all seeded areas. All costs for this work shall be subsidiary to the seeding bid item.

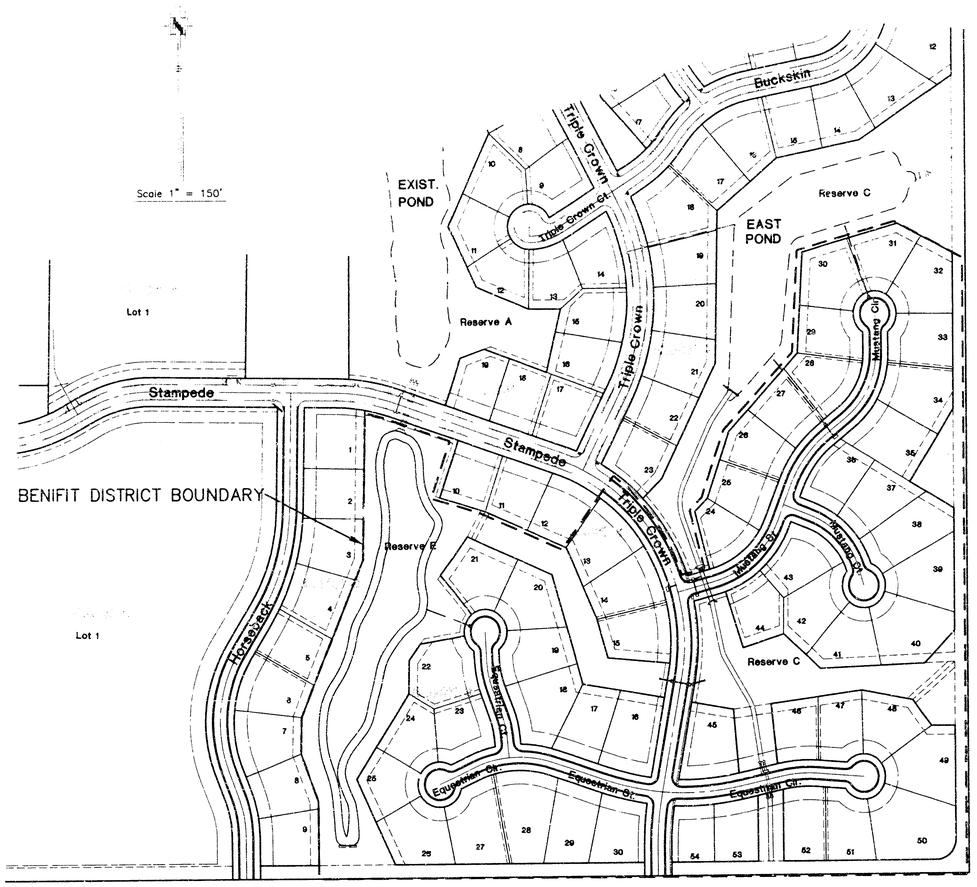
9. Contractor shall maintain all existing BMPs on project site during construction. Contractor shall repair or replace any existing BMP's that are damaged (Cost is subsidiary to site restoration). If BMPs were damaged prior to contractor beginning work on project, notify construction inspector or engineer.

10. Contractor shall remove and stockpile organic material (topsoil) to surface (to a minimum of twelve (12) inches) all fills, embankments and any other areas on the site of the work where the original topsoil will be covered or damaged. Topsoil shall be free from trash, debris and surface vegetation more than six (6) inches in height. After all work has been completed in each area, topsoil shall be placed and graded. (Cost shall be subsidiary to Excavation)

EARTHWORK SUMMARY

Pond Excavation	39,520 C.Y.
Pond Fill	1,477 C.Y.
Waste **	38,043 C.Y.

(See Earthwork Summary Sheet for Site Balance)
** See Street Plans for Waste Placement on Site



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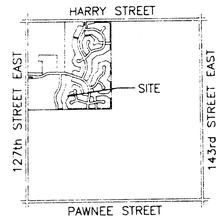

LOCATION MAP
No Scale

BENCH MARKS

(U.S.G.S. Datum)

1. Railroad spike in power pole, approximately 25' south and 30' east of W 1/4 Corner, Section 35-27-2E.
   Elev. 1349.65

2. Square on south hub guard of RCBC just west of NW Corner of Section35-27-2E.
   Elev. 1311.90

JANUARY 2008

POE & ASSOCIATES, INC.
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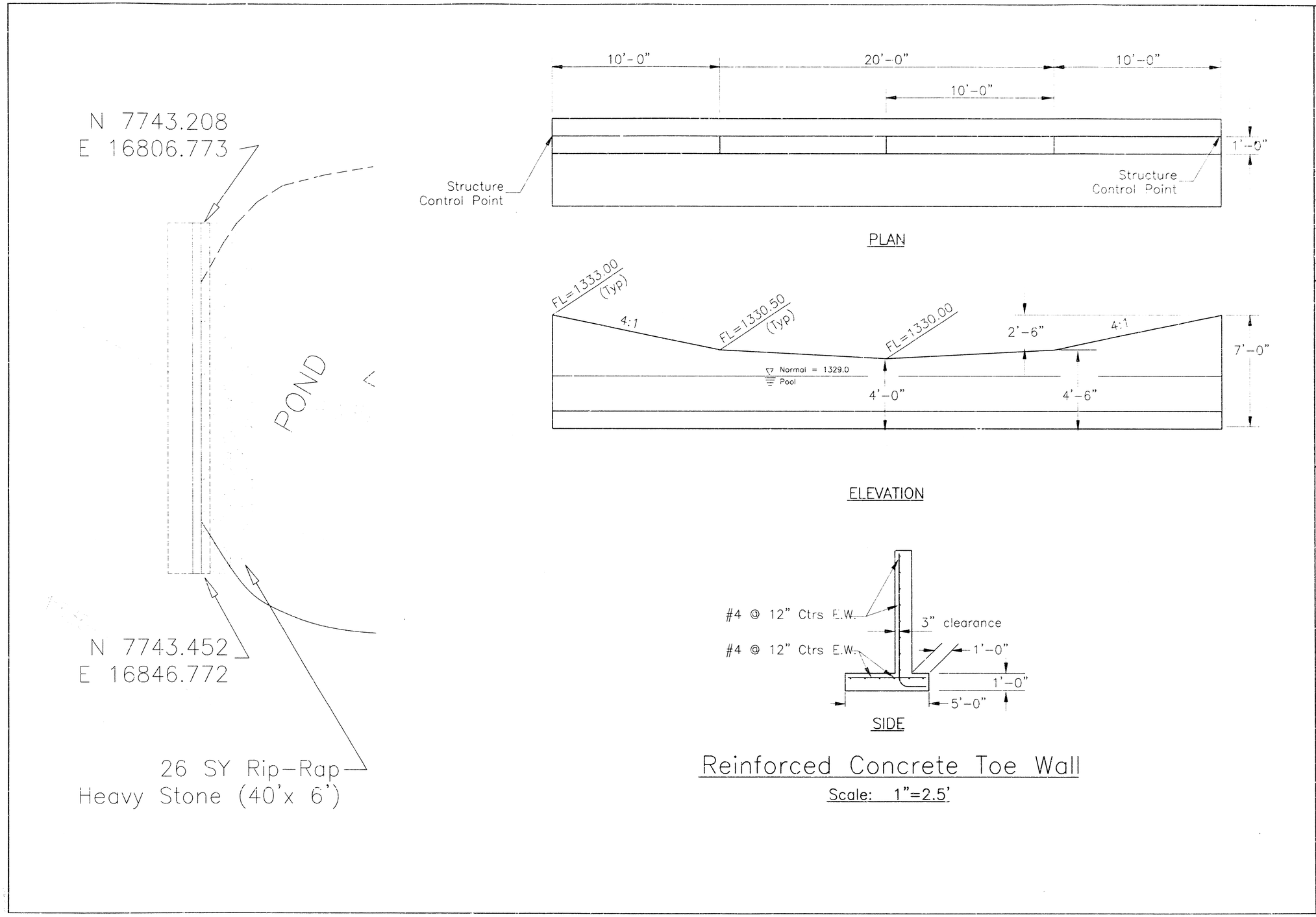
JAMES M. UBERT LICENSED 14698 1-25-08 KANSAS PROFESSIONAL ENGINEER



Reinforced Concrete Toe Wall

Scale: 1"=2.5'

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
REINFORCED CONCRETE INLET STRUCTURE
CITY OF WICHITA, KANSAS
JAMES L. ARMOUR, P.E. - CITY ENGINEER
C.O.W. Project # 468-83310 O.C.A. # 754410

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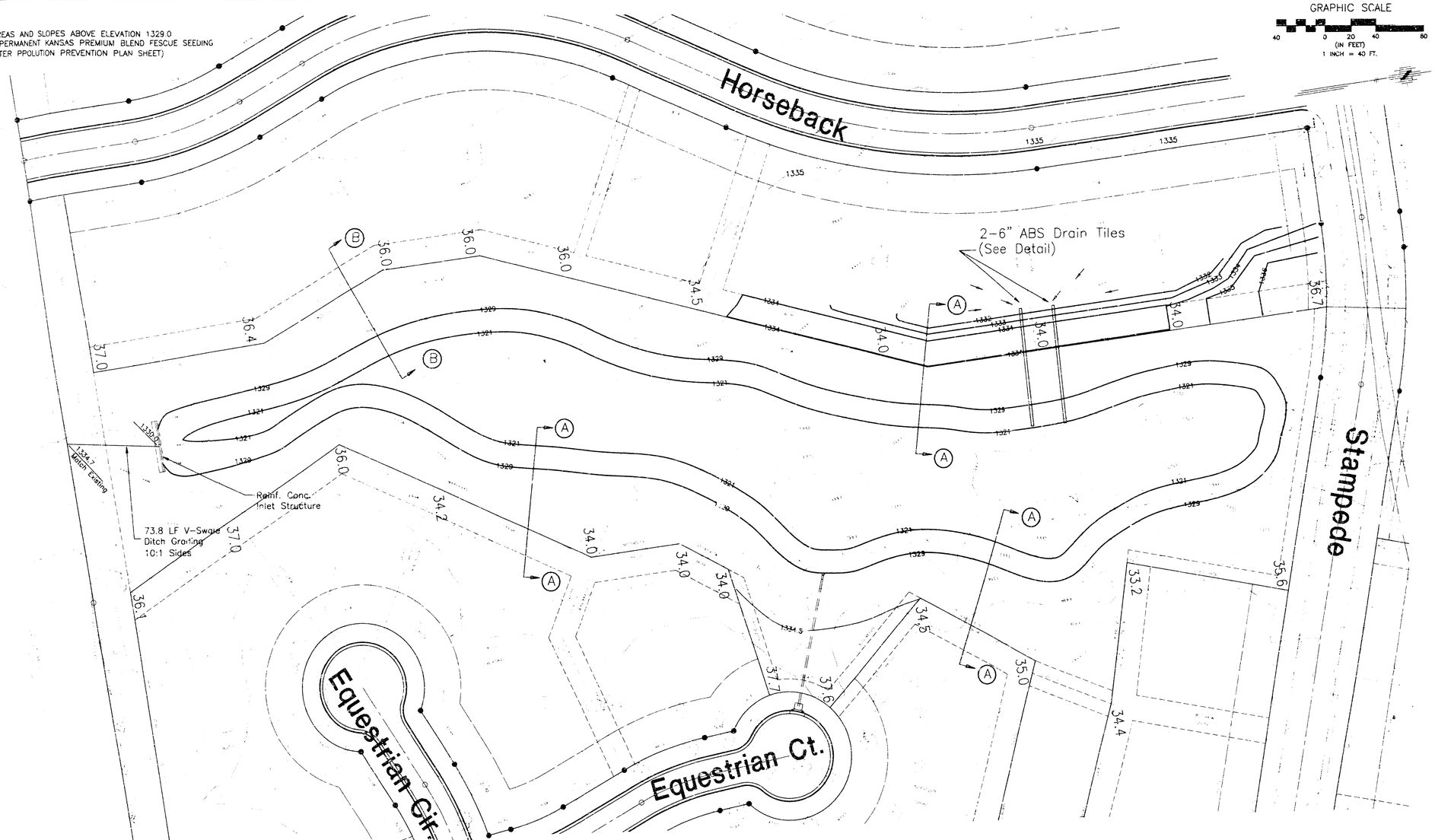
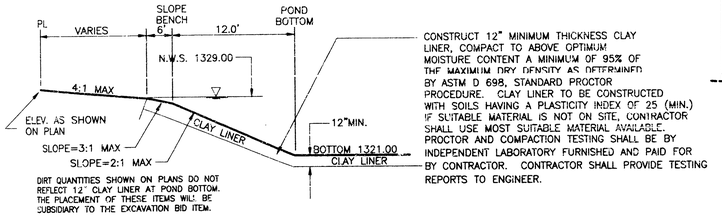
FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 1694J
Date: January 2006

Sheet
2 of 11

NOTE:
ALL RESERVE AREAS AND SLOPES ABOVE ELEVATION 1329.0
SHALL RECEIVE PERMANENT KANSAS PREMIUM BLEND FESCUE SEEDING
(SEE STORM WATER PPOLUTION PREVENTION PLAN SHEET)

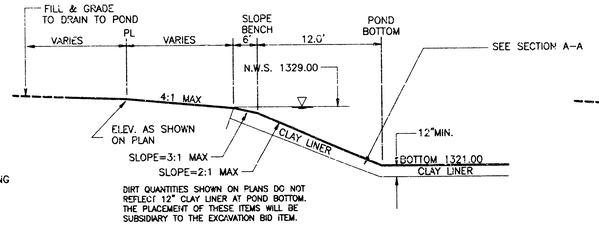




DIRT QUANTITIES SHOWN ON PLANS DO NOT REFLECT 12" CLAY LINER AT POND BOTTOM. THE PLACEMENT OF THESE ITEMS WILL BE SUBSIDIARY TO THE EXCAVATION BID ITEM.

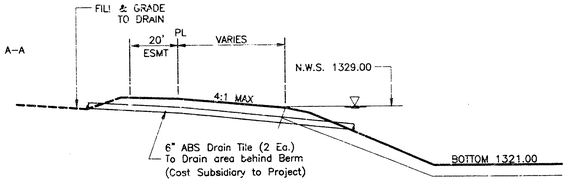
CONSTRUCT 12" MINIMUM THICKNESS CLAY LINER, COMPACT TO ABOVE OPTIMUM MOISTURE CONTENT A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698, STANDARD PROCTOR PROCEDURE. CLAY LINER TO BE CONSTRUCTED WITH SOILS HAVING A PLASTICITY INDEX OF 25 (MIN.) IF SUITABLE MATERIAL IS NOT ON SITE, CONTRACTOR SHALL USE MOST SUITABLE MATERIAL AVAILABLE. PROCTOR AND COMPACTION TESTING SHALL BE BY INDEPENDENT LABORATORY FURNISHED AND PAID FOR BY CONTRACTOR. CONTRACTOR SHALL PROVIDE TESTING REPORTS TO ENGINEER.

SECTION 'A' - 'A'



DIRT QUANTITIES SHOWN ON PLANS DO NOT REFLECT 12" CLAY LINER AT POND BOTTOM. THE PLACEMENT OF THESE ITEMS WILL BE SUBSIDIARY TO THE EXCAVATION BID ITEM.

SECTION 'B' - 'B'



DRAIN TILE DETAIL

No.	Date	By	Approved	Revision

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
POND GRADING PLAN
CITY OF WICHITA, KANSAS
JAMES L. ARMOUR, P.E. - CITY ENGINEER
C.O.W. Project # 468-63339 O.C.A. # 75410

POE & ASSOCIATES, INC.
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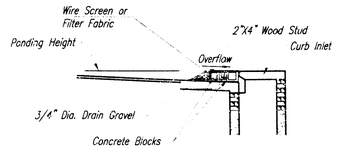
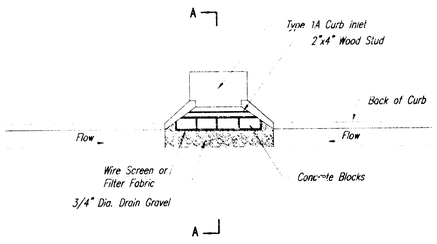
FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 1694J
Date: January 2006



SECTION A-A



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.

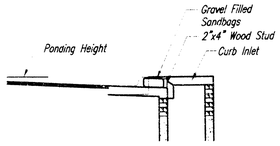
Instructions for Installing:

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.

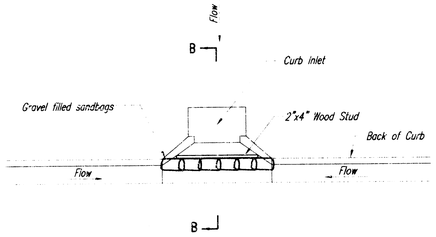
Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

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.

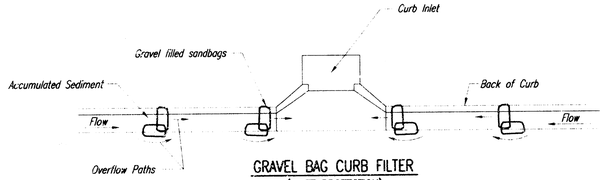


SECTION B-B



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.

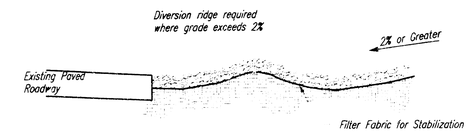
Spacing:

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

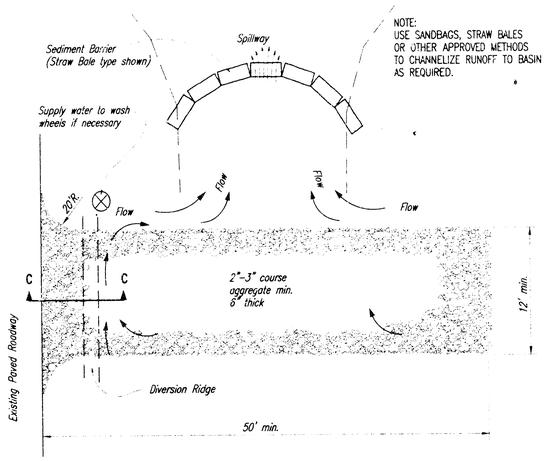
GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

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.

No.	Date	By	Revisions

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
SOIL EROSION BMPS
CITY OF WICHITA, KANSAS
JAMES L. ARNOLD, P.E. - CITY ENGINEER
C.O.W. Project # 468-83319 O.C.A. # 751410

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FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 1694J
Date: January 2006

CITY OF WICHITA

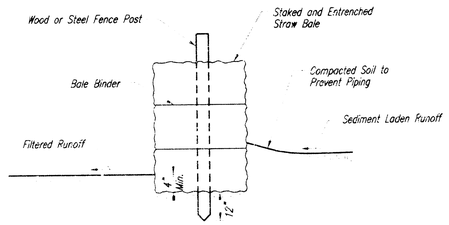
SOIL EROSION BMPs

CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

SCOTT LINDEBAK, P.E.
STORM WATER ENGINEER

PROJECT NUMBER	O.C.A. NO.
468-83319	751410
DATE: SEPT. 2003	SHEET 4 OF 11

Sheet 4 of 11



STRAW BALE BARRIERS

Material Specification:

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, bale slope barriers should be placed along contours to avoid a concentration of flow.
Bale slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 4" deep and a bale's width wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

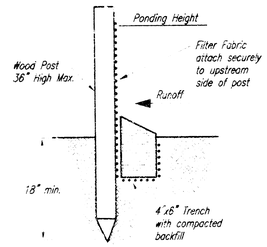
List of common placement/installation mistakes to avoid:

When practical, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails.
Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out.
Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

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

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the slope barrier?



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?

CITY OF WICHITA

SOIL EROSION BMPS

BARRIER DETAILS

SCOTT LINDEBAK, P.E.
STORM WATER ENGINEER

PROJECT NUMBER	DCA NO.
468-83319	751410
DATE: SEPT. 2003	SHEET 5 OF 11

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
SOIL EROSION BMPS
CITY OF WICHITA, KANSAS
CITY Project # 468-83319 - DCA # 751410

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Drawn By: JMU/JPD
Poe Job No.: 1694J
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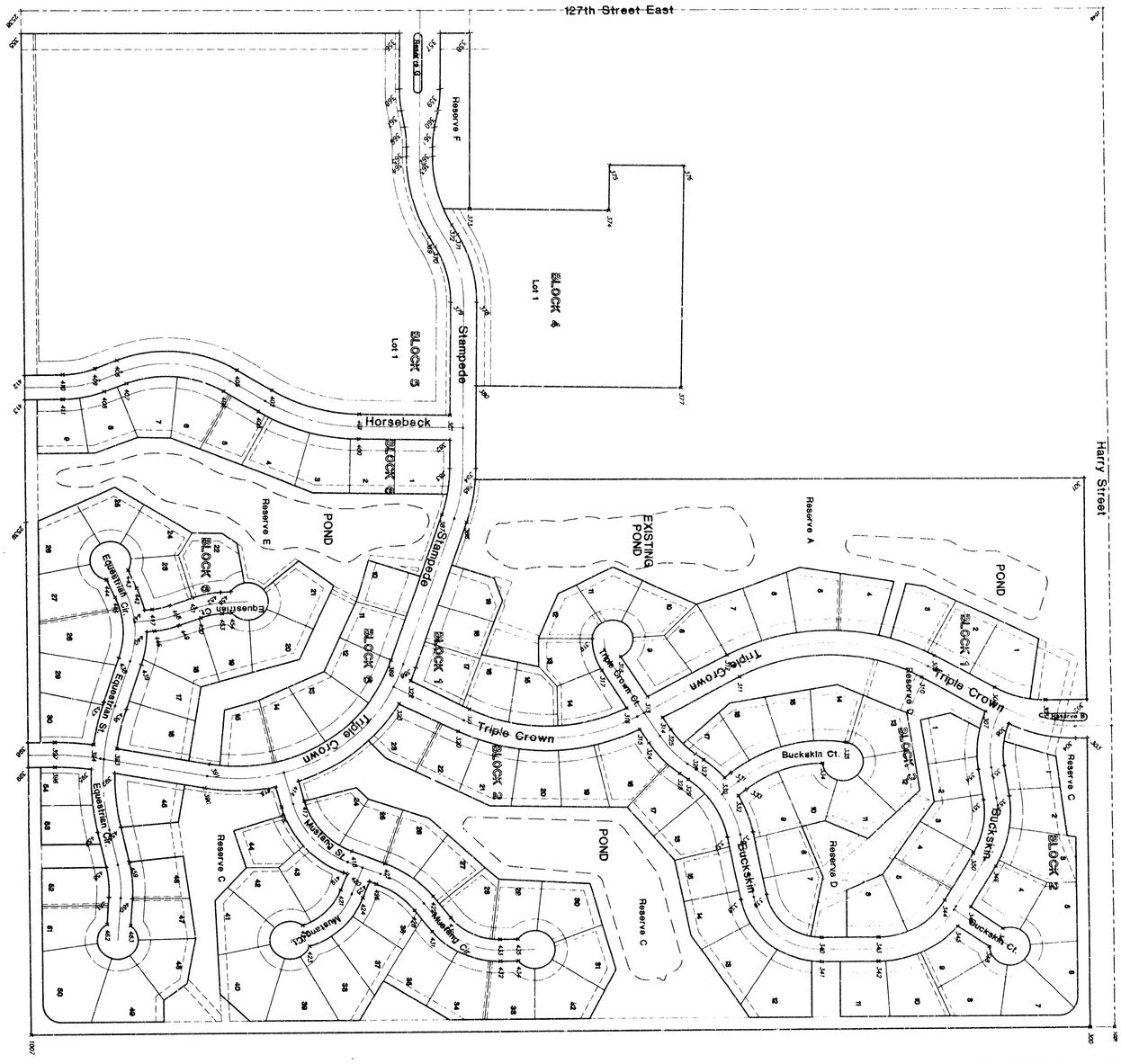
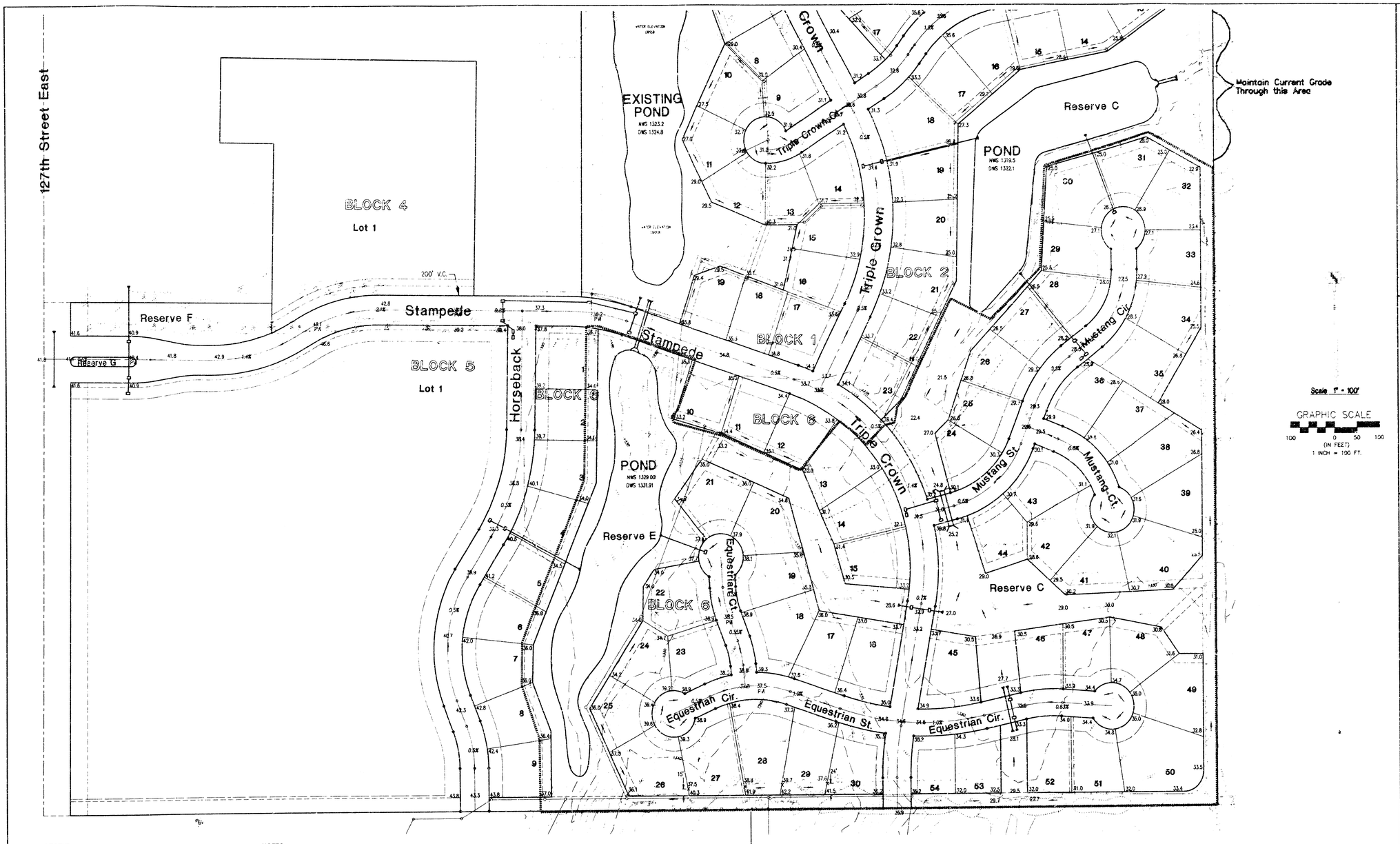
Sheet 5 of 11



POINT #	NORTHING	EASTING
2,536	7,662,478	1,615,996
2,536	7,670,644	1,619,332
1,601	7,670,243	1,619,644
1,601	1,536,235	1,619,974
2,246	1,537,733	1,618,819
1,551	1,539,222	1,618,519
552	1,539,222	1,618,363
552	1,537,629	1,617,924
553	1,537,672	1,617,962
554	1,537,602	1,617,919
555	1,538,946	1,617,657
556	1,539,463	1,617,619
557	1,539,235	1,617,598
558	1,539,509	1,617,559
559	1,539,538	1,617,548
560	1,539,545	1,617,547
561	1,539,554	1,617,545
562	1,539,563	1,617,543
563	1,539,572	1,617,541
564	1,539,581	1,617,539
565	1,539,590	1,617,537
566	1,539,599	1,617,535
567	1,539,608	1,617,533
568	1,539,617	1,617,531
569	1,539,626	1,617,529
570	1,539,635	1,617,527
571	1,539,644	1,617,525
572	1,539,653	1,617,523
573	1,539,662	1,617,521
574	1,539,671	1,617,519
575	1,539,680	1,617,517
576	1,539,689	1,617,515
577	1,539,698	1,617,513
578	1,539,707	1,617,511
579	1,539,716	1,617,509
580	1,539,725	1,617,507
581	1,539,734	1,617,505
582	1,539,743	1,617,503
583	1,539,752	1,617,501
584	1,539,761	1,617,499
585	1,539,770	1,617,497
586	1,539,779	1,617,495
587	1,539,788	1,617,493
588	1,539,797	1,617,491
589	1,539,806	1,617,489
590	1,539,815	1,617,487
591	1,539,824	1,617,485
592	1,539,833	1,617,483
593	1,539,842	1,617,481
594	1,539,851	1,617,479
595	1,539,860	1,617,477
596	1,539,869	1,617,475
597	1,539,878	1,617,473
598	1,539,887	1,617,471
599	1,539,896	1,617,469
600	1,539,905	1,617,467
601	1,539,914	1,617,465
602	1,539,923	1,617,463
603	1,539,932	1,617,461
604	1,539,941	1,617,459
605	1,539,950	1,617,457
606	1,539,959	1,617,455
607	1,539,968	1,617,453
608	1,539,977	1,617,451
609	1,539,986	1,617,449
610	1,539,995	1,617,447
611	1,540,004	1,617,445
612	1,540,013	1,617,443
613	1,540,022	1,617,441
614	1,540,031	1,617,439
615	1,540,040	1,617,437
616	1,540,049	1,617,435
617	1,540,058	1,617,433
618	1,540,067	1,617,431
619	1,540,076	1,617,429
620	1,540,085	1,617,427
621	1,540,094	1,617,425
622	1,540,103	1,617,423
623	1,540,112	1,617,421
624	1,540,121	1,617,419
625	1,540,130	1,617,417
626	1,540,139	1,617,415
627	1,540,148	1,617,413
628	1,540,157	1,617,411
629	1,540,166	1,617,409
630	1,540,175	1,617,407
631	1,540,184	1,617,405
632	1,540,193	1,617,403
633	1,540,202	1,617,401
634	1,540,211	1,617,399
635	1,540,220	1,617,397
636	1,540,229	1,617,395
637	1,540,238	1,617,393
638	1,540,247	1,617,391
639	1,540,256	1,617,389
640	1,540,265	1,617,387
641	1,540,274	1,617,385
642	1,540,283	1,617,383
643	1,540,292	1,617,381
644	1,540,301	1,617,379
645	1,540,310	1,617,377
646	1,540,319	1,617,375
647	1,540,328	1,617,373
648	1,540,337	1,617,371
649	1,540,346	1,617,369
650	1,540,355	1,617,367
651	1,540,364	1,617,365
652	1,540,373	1,617,363
653	1,540,382	1,617,361
654	1,540,391	1,617,359
655	1,540,400	1,617,357
656	1,540,409	1,617,355
657	1,540,418	1,617,353
658	1,540,427	1,617,351
659	1,540,436	1,617,349
660	1,540,445	1,617,347
661	1,540,454	1,617,345
662	1,540,463	1,617,343
663	1,540,472	1,617,341
664	1,540,481	1,617,339
665	1,540,490	1,617,337
666	1,540,499	1,617,335
667	1,540,508	1,617,333
668	1,540,517	1,617,331
669	1,540,526	1,617,329
670	1,540,535	1,617,327
671	1,540,544	1,617,325
672	1,540,553	1,617,323
673	1,540,562	1,617,321
674	1,540,571	1,617,319
675	1,540,580	1,617,317
676	1,540,589	1,617,315
677	1,540,598	1,617,313
678	1,540,607	1,617,311
679	1,540,616	1,617,309
680	1,540,625	1,617,307
681	1,540,634	1,617,305
682	1,540,643	1,617,303
683	1,540,652	1,617,301
684	1,540,661	1,617,299
685	1,540,670	1,617,297
686	1,540,679	1,617,295
687	1,540,688	1,617,293
688	1,540,697	1,617,291
689	1,540,706	1,617,289
690	1,540,715	1,617,287
691	1,540,724	1,617,285
692	1,540,733	1,617,283
693	1,540,742	1,617,281
694	1,540,751	1,617,279
695	1,540,760	1,617,277
696	1,540,769	1,617,275
697	1,540,778	1,617,273
698	1,540,787	1,617,271
699	1,540,796	1,617,269
700	1,540,805	1,617,267
701	1,540,814	1,617,265
702	1,540,823	1,617,263
703	1,540,832	1,617,261
704	1,540,841	1,617,259
705	1,540,850	1,617,257
706	1,540,859	1,617,255
707	1,540,868	1,617,253
708	1,540,877	1,617,251
709	1,540,886	1,617,249
710	1,540,895	1,617,247
711	1,540,904	1,617,245
712	1,540,913	1,617,243
713	1,540,922	1,617,241
714	1,540,931	1,617,239
715	1,540,940	1,617,237
716	1,540,949	1,617,235
717	1,540,958	1,617,233
718	1,540,967	1,617,231
719	1,540,976	1,617,229
720	1,540,985	1,617,227
721	1,540,994	1,617,225
722	1,541,003	1,617,223
723	1,541,012	1,617,221
724	1,541,021	1,617,219
725	1,541,030	1,617,217
726	1,541,039	1,617,215
727	1,541,048	1,617,213
728	1,541,057	1,617,211
729	1,541,066	1,617,209
730	1,541,075	1,617,207
731	1,541,084	1,617,205
732	1,541,093	1,617,203
733	1,541,102	1,617,201
734	1,541,111	1,617,199
735	1,541,120	1,617,197
736	1,541,129	1,617,195
737	1,541,138	1,617,193
738	1,541,147	1,617,191
739	1,541,156	1,617,189
740	1,541,165	1,617,187
741	1,541,174	1,617,185
742	1,541,183	1,617,183
743	1,541,192	1,617,181
744	1,541,201	1,617,179
745	1,541,210	1,617,177
746	1,541,219	1,617,175
747	1,541,228	1,617,173
748	1,541,237	1,617,171
749	1,541,246	1,617,169
750	1,541,255	1,617,167
751	1,541,264	1,617,165
752	1,541,273	1,617,163
753	1,541,282	1,617,161
754	1,541,291	1,617,159
755	1,541,300	1,617,157
756	1,541,309	1,617,155
757	1,541,318	1,617,153
758	1,541,327	1,617,151
759	1,541,336	1,617,149
760	1,541,345	1,617,147
761	1,541,354	1,617,145
762	1,541,363	1,617,143
763	1,541,372	1,617,141
764	1,541,381	1,617,139
765	1,541,390	1,617,137
766	1,541,399	1,617,135
767	1,541,408	1,617,133
768	1,541,417	1,617,131
769	1,541,426	1,617,129
770	1,541,435	1,617,127
771	1,541,444	1,617,125
772	1,541,453	1,617,123
773	1,541,462	1,617,121
774	1,541,471	1,617,119
775	1,541,480	1,617,117
776	1,541,489	1,617,115
777	1,541,498	1,617,113
778	1,541,507	1,617,111
779	1,541,516	1,617,109
780	1,541,525	1,617,107
781	1,541,534	1,617,105
782	1,541,543	1,617,103
783	1,541,552	1,617,101
784	1,541,561	1,617,099
785	1,541,570	1,617,097
786	1,541,579	1,617,095
787	1,541,588	1,617,093
788	1,541,597	1,617,091
789	1,541,606	1,617,089
790	1,541,615	1,617,087
791	1,541,624	1,617,085
792	1,541,633	1,617,083
793	1,541,642	1,617,081
794	1,541,651	1,617,079
795	1,541,660	1,617,077
796	1,541,669	1,617,075
797	1,541,678	1,617,073
798	1,541,687	1,617,071
799	1,541,696	1,617,069
800	1,541,705	1,617,067
801	1,541,714	1,617,065
802	1,541,723	1,617,063
803	1,541,732	1,617,061
804	1,541,741	1,617,059
805	1,541,750	1,617,057
806	1,541,759	1,617,055
807	1,541,768	1,617,053
808	1,541,777	1,617,051
809	1,541,786	1,617,049
810	1,541,795	1,617,047
811	1,541,804	1,617,045
812	1,541,813	1,617,043
813	1,541,822	1,617,041
814	1,541,831	1,617,039
815	1,541,840	1,617,037
816	1,541,849	1,617,035
817	1,541,858	1,617,033
818	1,541,867	1,617,031
819	1,541,876	1,617,029
820	1,541,885	1,617,027
821	1,541,894	1,617,025
822	1,541,903	1,617,023
823	1,541,912	1,617,021
824	1,541,921	1,617,019
825	1,541,930	1,617,017
826	1,541,939	1,617,015
827	1,541,948	1,617,013
828	1,541,957	1,617,011
829	1,541,966	1,617,009
830	1,541,975	1,617,007
831	1,541,984	1,617,005
832	1,541,993	1,617,003
833	1,542,002	1,617,001
834	1,542,011	1,616,999
835	1,542,020	1,616,997
836	1,542,029	1,616,995
837	1,542,038	1,616,993
838	1,542,047	1,616,991
839	1,542,056	1,616,989
840	1,542,065	1,616,987
841	1,542,074	1,616,985
842	1,542,083	1,616,983
843	1,542,092	1,616,981
844	1,542,101	1,616,979
845	1,542,110	1,616,977
846	1,542,119	1,616,975
847	1,542,128	1,616,973
848	1,542,137	1,616,971
849	1,542,146	1,616,969
850	1,542,155	1,616,967
851	1,542,164	1,616,965
852	1,542,173	1,616,963
853	1,542,182	1,616,961
854	1,542,191	1,616,959
855	1,542,200	1,616,957
856	1,542,209	1,616,955
857	1,542,218	1,616,953
858	1,542,227	1,616,951
859	1,542,236	1,616,949
860	1,542,245	1,616,947
861	1,542,254	1,616,945
862	1,542,263	1,616,943
863	1,542,272	1,616,941
864	1,542,281	1,616,939
865	1,542,290	1,616,937
866	1,542,299	1,616,935
867	1,542,308	1,616,933
868	1,542,317	1,616,931
869	1,542,326	1,616,929
870	1,542,335	1,616,927
871	1,542,344	1,616,925
872	1,542,353	1,616,923
873	1,542,362	1,616,921
874	1,542,371	1,616,919
875	1,542,380	1,616,917
876	1,542,389	1,616,915
877	1,542,398	1,616,913
878	1,542,407	1,616,911
879	1,542,416	1,616,909
880	1,542,425	1,616,907
881	1,542,434	1,616,905
882	1,542,443	1,616,903
883	1,542,452	1,616,901
884	1,542,461	1,616,899
885	1,542,470	1,616,897
886	1,542,479	1,616,895
887	1,542,488	1,616,893
888	1,542,497	1,616,891
889	1,542,506	1,616,889
890	1,542,515	1,616,887
891	1,542,524	1,616,885
892	1,542,533	1,616,883
893	1,542,542	1,616,881
894	1,542,551	1,616,879
895	1,542,560	1,616,877
896	1,542,569	1,616,875
897	1,542,578	1,616,873
898	1,542,587	1,616,871
899	1,542,596	1,616,869
900	1,542,605	1,616,867
901	1,542,614	1,616,865
902	1,542,623	1,616,863
903	1,542,632	1,616,861
904	1,542,641	1,616,859
905	1,542,650	1,616,857
906	1,542,659	1,616,855
907	1,542,668	1,616,853
908	1,542,677	1,616,851
909	1,542,686	1,616,849
910	1,542,695	1,616,847
911	1,542,704	1,616,845
912	1,542,713	1,616,843
913	1,542,722	1,616,841
914	1,542,731	1,616,839
915	1,542,740	1,616,837
916	1,542,749	1,616,835
917	1,542,758	1,616,833
918	1,542,767	1,616,831
919	1,542,776	1,616,829
920	1,542,785	1,616,827
921	1,542,794	1,616,825
922	1,542,803	1,616,823
923	1,542,812	1,616,821
924	1,542,821	1,616,819
925	1,542,830	1,616,817
926	1,542,839	1,616,815
927	1,542,848	1,616,813
928	1,542,857	1,616,811
929	1,542,866	1,616,809
930	1,542,875	1,616,807
931	1,542,884	1,616,805
932	1,542,893	1,616,803
933	1,542,902	1,616,801
934	1,542,911	1,616,799
935	1,542,920	1,616,797
936	1,542,929	1,616,795
937	1,542,938	1,616,793
938	1,542,947	1,616,791
939	1,542,956	1,616,789
940	1,542,965	1,616,787
941	1,542,974	1,616,785
942	1,542,983	1,616,783
943	1,542,992	1,616,781
944	1,543,001	1,616,779
945	1,543,010	1,616,777
946	1,543,019	1,616,775
947	1,543,028	1,616,773
948	1,543,037	1,616,771
949	1,543,046	1,616,769
950	1,543,055	1,616,767
951	1,543,064	1,616,765
952	1,543,073	1,616,763
953	1,543,082	1,616,761
954	1,543,091	1,616,759
955	1,543,100	1,616,757
956	1,543,109	1,616,755
957	1,543,118	1,616,753
958	1,543,127	1,616,751
959	1,543,136	1,616,749
960	1,543,145	1,616,747
961	1,543,154	1,616,745
962	1,543,163	1,616,743
963	1,543,172	1,616,741
964	1,543,181	1,616,739
965	1,543,190	1,616,737
966	1,543,199	1,616,735
967	1,543,208	1,616,733
968	1,543,217	1,616,731
969	1,543,226	1,616,729
970	1,543,235	1,616,727
971	1,543,244	1,616,725
972	1,543,253	1,616,723
973	1,543,262	1,616,721
974	1,543,271	1,616,719
975	1,543,280	1,616,717
976	1,543,289	1,616,715
977	1,543,298	1,616,713
978	1,543,307	1,616,711
979	1,543,316	1,616,709
980	1,543,325	1,616,707
981	1,543,334	1,616,705
982	1,543,343	1,616,703
983	1,543,352	1,616,701
984	1,543,361	1,616,699
985	1,543,370	1,616,697
986	1,543,379	1,616,695
987	1,543,388	1,616,693
988	1,543,397	1,616,691
989	1,543,406	1,616,689
990	1,543,415	1,616,687
991	1,543,424	1,616,685
992	1,543,433	1,616,683
993	1,543,442	1,616,681
994	1,543,451	1,616,679
995	1,543,460	1,616,677
996	1,543,469	1,616,675
997	1,543,478	1,616,673
998	1,543,487	1,616,671
999	1,543,496	1,616,669
1000	1,543,505	1,616,667
1001	1,543,514	1,616,665
1002	1,543,523	1,616,663
1003	1,543,532	1,616,661
1004	1,543,541	1,616,659
1005	1,543,550	1,616,657
1006	1,543,559	1,616,655
1007	1,543,568	1,616,653
1008	1,543,577	1,616,651
1009	1,543,586	1,616,649
1010	1,543,595	1,616,647
1011	1,543,604	1,616,645
1012	1,543,613	1,616,643
1013	1,543,622	1,616,641
1014	1,543,631	1,616,639
1015	1,543,640	1,616,637
1016	1,543,649	1,616,635
1017	1,543,658	1,616,633
1018	1,543,667	1,616,631
1019	1,543,676	1,616,629
1020	1,543,685	1,616,627
1021	1,543,694	1,616,625
1022	1,543,703	1,616,623
1023	1,543,712	1,616,621
1024	1,543,721	1,616,619
1025	1,543,730	1,616,617
1026	1,543,739	1,616,615
1027	1,543,748	1,616,613
1028	1,543,757	1,616,611
1029	1,543,766	1,616,609
1030	1,543,775	1,616,607
1031	1,543,784	1,616,605
1032	1,543,793	1,616,603
1033	1,543,802	1,616,601
1034	1,543,811	1,616,599
1035	1,543,820	1,616,597
1036	1,543,829	1,616,595
1037	1,543,838	1,616,593
1038	1,543,847	1,616,591
1039	1,543,856	1,616,589
1040	1,543,865	1,616,587
1041	1,543,874	1,616,585
1042	1,543,883	1,616,583
1043	1,543,892	1,616,581
1044	1,543,901	1,616,579
1045	1,543,910	1,616,577
1046	1,543,919	1,616,575
1047	1,543,928	1,616,573
1048	1,543,937	1,616,571
1049	1,543,946	1,616,569
1050	1,543,955	1,616,567
1051	1,543,964	1,616,565
1052	1,543,973	1,616,563
1053	1,543,982	1,616,561
1054	1,543,991	1,616,559
1055	1,544,000	1,616,557
1056	1,544,009	1,616,555
1057	1,544,018	1,616,553
1058	1,544,027	1,616,551
1059	1,544,036	1,616,549
1060	1,544,045	1,616,547
1061	1,544,054	1,616,545
1062	1,544,063	1,616,543
1063	1,544,072	1,616,541
1064	1,544,081	1,616,539
1065	1,544,090	1,616,537
1066	1,544,099	1,616,535
1067	1,544,108	1,616,533
1068	1,544,117	1,616,531
1069	1,544,126	1,616,529
1070	1,544,135	1,616,527
1071	1,544,144	1,616,525
1072	1,544,153	1,616,523
1073	1,544,162	1,616,521
1074	1,544,171	1,616,519
1075	1,544,180	1,616,517
1076	1,544,189	1,616,515
1077	1,544,198	1,616,513
1078	1,544,207	1,616,511
1079	1,544,216	1,616,509
1080	1,544,225	1,616,507
1081	1,544,234	1,616,505
1082	1,544,243	1,616,503
1083	1,544,252	1,616,501
1084	1,544,261	1,616,499
1085	1,544,270	1,616,497
1086	1,544,279	1,616,495
1087	1,544,288	1,616,493
1088	1,544,297	1,616,491
1089	1,544,306	1,616,489
1090	1,544,315	1,616,487
1091	1,544,324	1,616,485
1092	1,544,333	1,616,483
1093	1,544,342	1,616,481
1094	1,544,351	1,616,479
1095	1,544,360	1,616,477
1096	1,544,369	1,616,475
1097	1,544,378	1,616,473
1098	1,544,387	1,616,471
1099	1,544,396	1,616,469
1100	1,544,405	1,616,467
1101	1,544,414	1,616,465
1102	1,544,423	1,616,463
1103	1,544,432	1,616,461
1104	1,544,441	1,616,459
1105	1,544,450	1,616,457
1106	1,544,459	1,616,455
1107	1,544,468	1,616,453
1108	1,544,477	1,616,451
1109	1,544,486	1,616,449
1110	1,544,495	1,616,447
1111	1,544,504	1,616,445
1112	1,544,513	1,616,443
1113	1,544,522	1,616,441
1114	1,544,531	1,616,439
1115	1,544,540	1,616,437
1116	1,544,549	1,616,435
1117	1,544,558	1,616,433
1118	1,544,567	1,616,431
1119	1,544,576	1,616,429
1120	1,544,585	1,616,427
1121	1,544,594	1,616,425
1122	1,544,603	1,616,423
1123	1,544,612	1,616,421
1124	1,544,621	1,616,419
1125	1,544,630	1,616,417
1126	1,544,639	1,616,415
1127	1,544,648	1,616,413
1128	1,544,657	1,616,411
1129	1,544,666	1,616,409
1130	1,544,675	1,616,407
1131	1,544,684	1,616,405
1132	1,544,693	1,616,403
1133	1,544,702	1,616,401
1134	1,544,711	1,616,399
1135	1,544,720	1,616,397
1136	1,544,729	1,616,395
1137	1,544,738	1,616,393
1138	1,544,747	1,616,391
1139	1,544,756	1,616,389
1140	1,544,765	1,616,387
1141	1,544,774	1,616,385
1142	1,544,783	1,616,383
1143	1,544,792	1,616,381
1144	1,544,801	1,616,379
1145	1,544,810	1,616,377
1146	1,544,819	1,616,375
1147	1,544,828	1,616,373
1148	1,544,837	1,616,371
1149	1,544,846	1,616,369
1150	1,544,855	1,616,367
1151	1,544,864	1,616,365
1152	1,544,873	1,616,363
1153	1,544,882	1,616,361
1154	1,544,891	1,616,359
1155	1,544,900	1,616,357
1156	1,544,909	1,616,355
1157	1,544,918	1,616,353
1158	1,544,927	1,616,351
1159	1,544,936	1,616,349
1160	1,544,945	1,616,347
1161	1,544,954	1,616,345
1162	1,544,963	1,616,343
1163	1,544,972	1,616,341
1164	1,544,981	1,616,339
1165	1,544,990	1,616,337
1166	1,544,999	1,616,335
1167	1,545,008	1,616,333
1168	1,545,017	1,616,331
1169	1,545,026	1,616,329
1170	1,545,035	1,616,327
1171	1,545,044	1,616,325
1172	1,545,053	1,616,323
1173	1,545,062	1,616,321
1174	1,545,071	1,616,319
1175	1,545,080	1,616,317
1176	1,545,089	1,616,315
1177	1,545,098	1,616,313
1178	1,545,107	1,616,311
1179	1,545,116	1,616,309
1180	1,545,125	1,616,307
1181	1,545,134	1,616,305
1182	1,545,143	1,616,303
1183	1,545,152	1,616,301
1184	1,545,161	1,616,299
1185	1,545,170	1,616,297
1186	1,545,179	1,616,295
1187	1,545,188	1,616,293
1188	1,545,197	1,616,291
1189	1,545,206	1,616,289
1190	1,545,215	1,616,287
1191	1,545,224	1,616,285
1192	1,545,233	1,616,283
1193	1,545,242	1,616,281
1194	1,545,251	1,616,279
1195	1,545,260	1,616,277
1196	1,545,269	1,616,275
1197	1,545,278	1,616,273
1198	1,545,287	1,616,271
1199	1,545,296	1,616,269
1200	1,545,305	1,616,267
1201	1,545,314	1,616,265
1202	1,545,323	1,616,263
1203	1,545,332	1,616,261
1204	1,545,341	1,616,259
1205	1,545,350	1,616,257
1206	1,545,359	1,616,255
1207	1,545,368	1,616,253
1208	1,545,377	1,616,251
1209	1,545,386	1,616,249
1210	1,545,395	1,616,247
1211	1,545,404	1,616,245
1212	1,545,413	1,616,243
1213	1,545,422	1,616,241
1214	1,545,431	1,616,239
1215	1,545,440	1,616,237
1216	1,545,449	1,616,235
1217	1,545,458	1,616,233
1218	1,545,467	1,616,231
1219	1,545,476	1,616,229
1220	1,545,485	1,616,227
1221	1,545,494	1,616,225
1222	1,545,503	1,616,223
1223	1,545,512	1,616,221
1224	1,545,521	1,616,219
1225	1,545,530	1,616,217
1226	1,545,539	1,616,215
1227	1,545,548	1,616,213
1228	1,545,557	1,616,211
1229	1,545,566	1,616,209
1230	1,545,575	1,616,207
1231	1,545,584	1,616,205
1232	1,545,593	1,616,203
1233	1,545,602	1,616,201
1234	1,545,611	1,616,199
1235	1,545,620	1,616,197
1236	1,545,629	1,616,195
1237	1,545,638	1,616,193
1238	1,545,647	1,616,191
1239	1,545,656	1,616,189
1240	1,545,665	1,616,187
1241	1,545,674	1,616,185
1242	1,545,683	1,616,183
1243	1,545,692	1,616,181
1244	1,545,701	1,616,179
1245



LEGEND

20.9 = Proposed Elevation at Lot Corner

X 28.8 = Proposed Finished Elevation at 'X'

→ = Direction of Flow

NOTES:

1. Contractor shall grade all right-of-way areas according to elevations shown. (Cost subsidiary to Site Clearing/Restoration.)
2. Contractor shall waste earthwork evenly across low lying lots. (Cost subsidiary to Site Clearing/Restoration.)

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
LOT GRADING PLAN
CITY OF WICHITA, KANSAS
JAMES L. ARNOLD, P.E. - CITY ENGINEER
C.O.W. Project # 408 83319 O.C.A. # 751410

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
9940 E. Central Suite 200 ■ Wichita, KS 67206-4242
Phone (316) 685-4114 ■ FAX (316) 685-4444

FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 1694J
Date: January 2006

Sheet
7 of 11



LEGEND

- = Direction of Flow
- = Temporary Seeding Area (200 lbs/acre Rye Grass)
- = Permanent Seeding Area (350 lbs/acre KS Premium Blend Fescue) Area = 4.9 Ac
- = Back of Curb Protection (w/Seeding)
- = TRM Erosion Matting (Permanent, See Sheet 8a)
- = Sediment Barrier (Ditch Check) (Silt fence or hay bale)
- = Silt Fence Sediment Barrier (Total Length=2086 L.F.)

Storm Water Pollution Prevention Plan - Phase 2

EQUESTRIAN ESTATES

An Addition to Wichita - Sedgwick County, Kansas

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
STORM WATER POLLUTION PREVENTION PLAN
CITY OF WICHITA, KANSAS
JAMES L. ARMOUR, P.E. - CITY ENGINEER
C.O.W. Project # 468-83319 O.C.A. # 751410

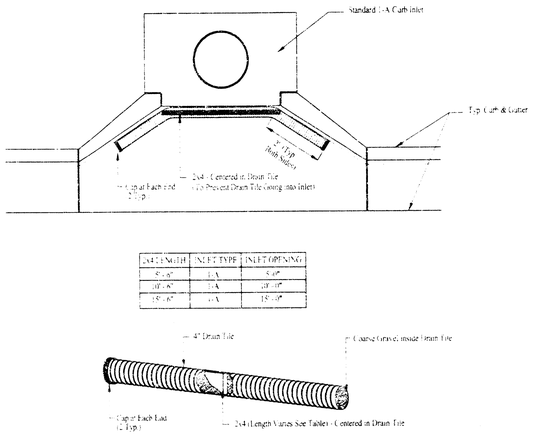
POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
Phone 316 685-4114 FAX 316 685-4444

FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 1694J
Date: January 2006

Sheet 8 of 11

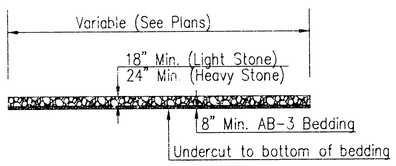
EROSION CONTROL
ADDITIONAL DETAILS



GRATE WIDTH	INLET TYPE	INLET OPENING
5'-0"	I-A	6'-0"
10'-0"	I-A	10'-0"
15'-0"	I-A	15'-0"

Curb Inlet Sediment Barrier Detail

(No Scale)



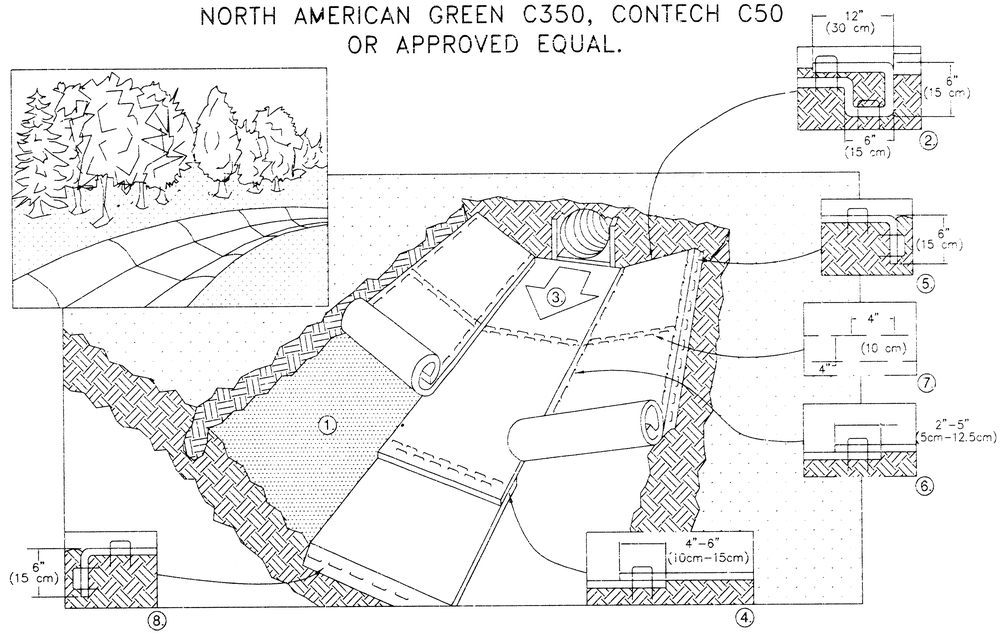
Light Stone Rip Rap shall be used
(Bedding shall be subsidiary to rip rap cost)

RIP RAP DETAIL

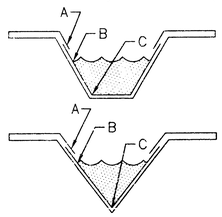
(No Scale)

EROSION CONTROL
(PERMANENT) TURF REINFORCEMENT MAT (TRM)
CHANNEL INSTALLATION

NORTH AMERICAN GREEN C350, CONTECH C50 OR APPROVED EQUAL.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

*** USE NORTH AMERICAN GREEN SC150, LANDLOK CS2, CONTECH SCFB2, OR APPROVED EQUAL.

EQUESTRIAN ESTATES ADDITION - PHASE 2
STORM WATER DRAIN NO. 179
SOIL EROSION Bmp'S
CITY OF WICHITA, KANSAS

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS

FINAL

Designed By: JMU/JPD
Drawn By: JMU/JPD
Poe Job No.: 16942
Date: January 2006

Sheet
8A of 11

EARTHWORK SUMMARY

STREET	CUT CU. YDS.	LOOSE FILL CU. YDS.	COMPACTED FILL CU. YDS.
** TRIPLE CROWN	130	1075	4422
** MUSTANG ST./CIR.	515	757	1433
** MUSTANG CT.	13	712	181
** EQUESTRIAN CIR.	0	731	2850
** EQUESTRIAN ST./CIR.	2317	217	283
** EQUESTRIAN CT.	206	323	192
	3181	3724	9361
15% SHRINKAGE		559	1404
STREETS TOTAL	*3181*	*4283*	*10765*
SITE			
** RESERVE C	1581	3855	0
** RESERVE E	3312	195	0
RESERVE E	39520	1368	0
** BLOCK 2	917	25401	0
** BLOCK 6	10106	7230	0
	55436	38049	0
8% SHRINKAGE		3044	0
SITE TOTAL	*55436*	*41093*	*0*
PROJECT TOTALS	**58617**	**45376 ***	**10765 ***

* LOOSE FILL AND COMPACTED FILL SHALL NOT EXCEED EXCAVATION (2,476 CY WILL BE WASTED ON SITE - SEE LOT GRADING PLAN)

** FROM COMPANION STREET PROJECT

EQUESTRIAN ESTATES ADDITION – PHASE 2
STORM WATER DRAIN NO. 179
EARTHWORK SUMMARY
CITY OF WICHITA, KANSAS

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS

FINAL

Designed By: JMJ/JPD
Drawn By: JMJ/JPD
Poe Job No.: 1614.2
Date: January 2006

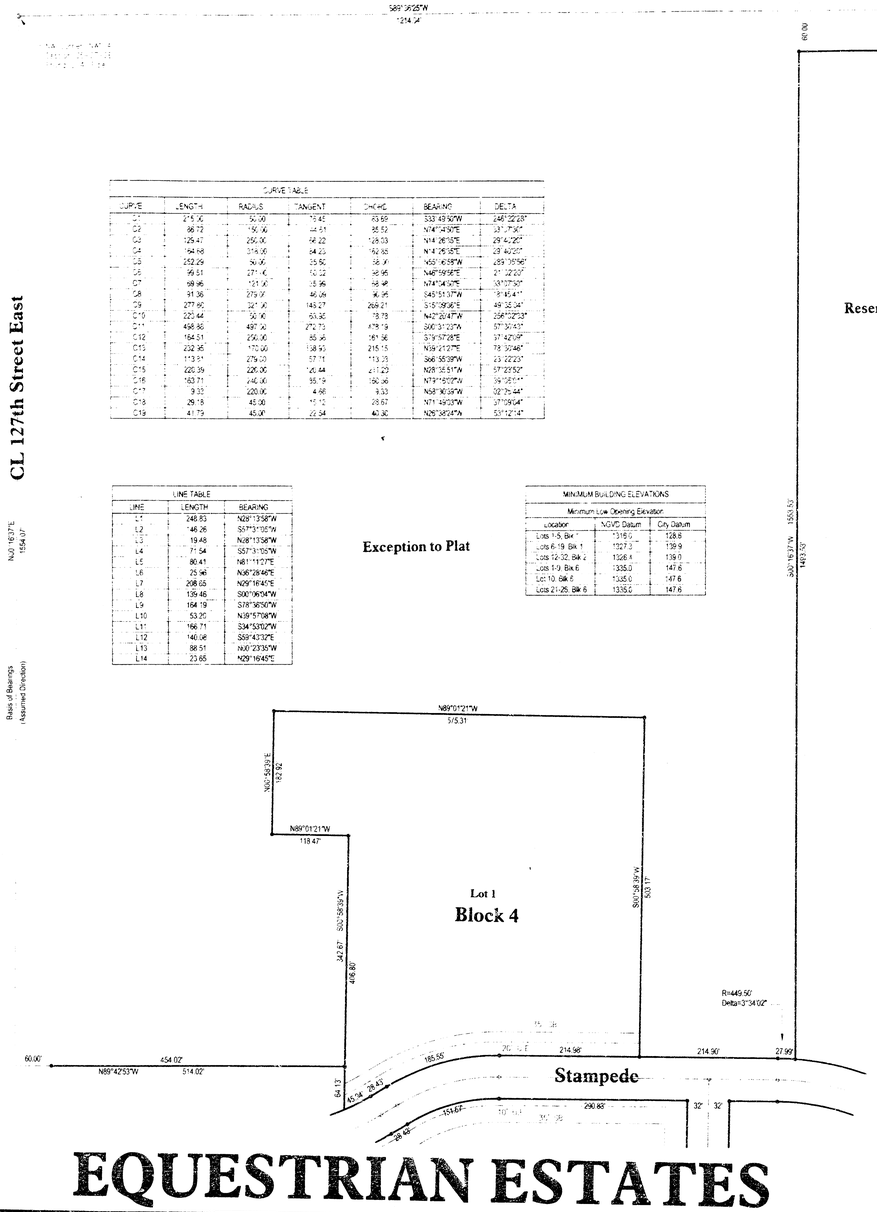
Sheet 9 of 11

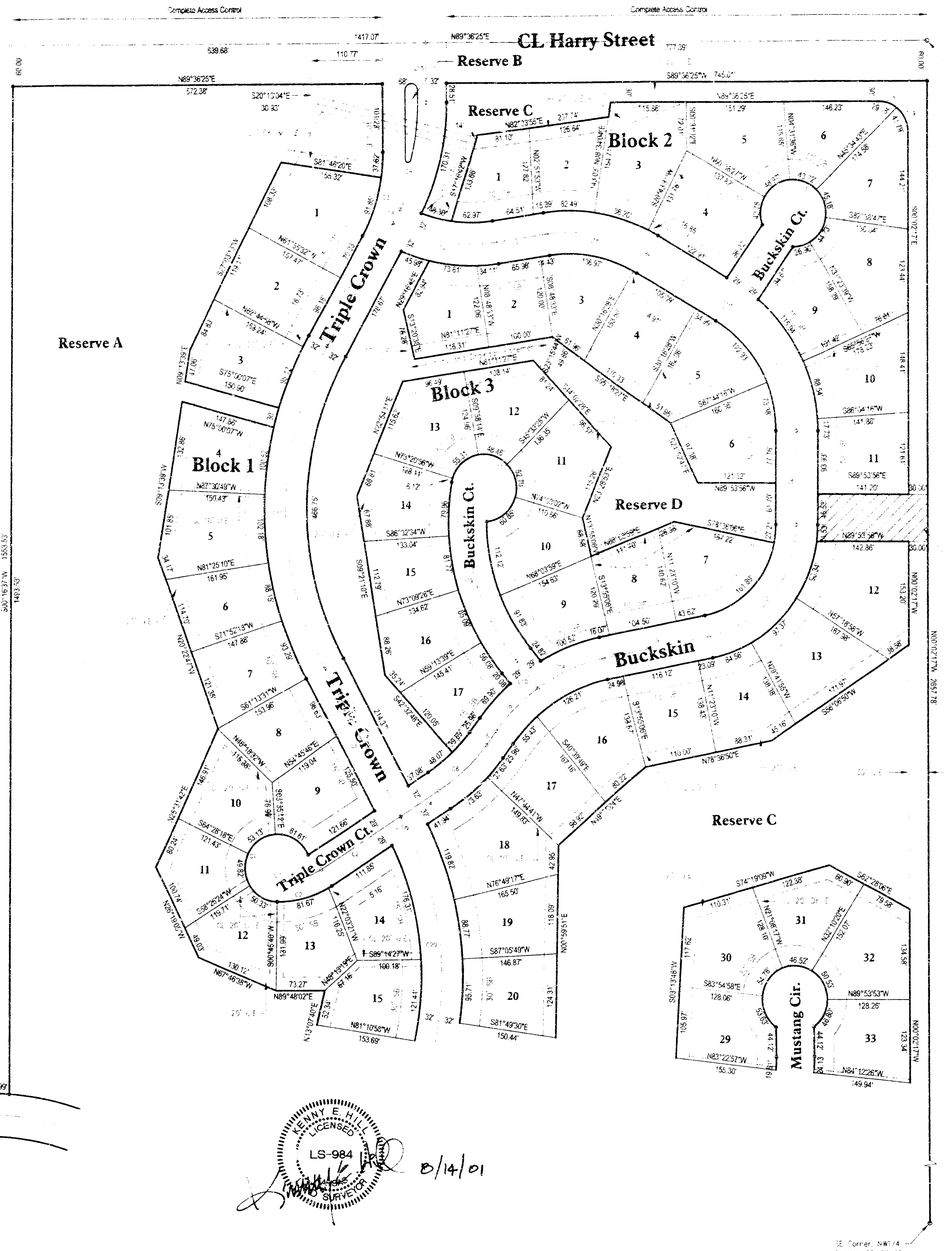
CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	215.92	50.00	76.45	83.69	S33°49'52"W	248°22'28"
C2	86.72	150.00	44.51	85.53	N74°14'50"E	33°7'34"
C3	125.47	250.00	64.22	124.03	N14°26'18"E	29°4'22"
C4	164.88	314.00	84.23	162.65	N14°26'38"E	29°4'22"
C5	252.09	50.00	55.50	58.34	N59°16'58"W	289°3'56"
C6	99.51	271.00	50.22	98.96	N48°19'58"E	21°2'23"
C7	99.96	121.00	53.96	96.49	N74°34'50"E	47°19'30"
C8	91.36	279.00	46.06	90.95	S45°51'37"W	18°45'41"
C9	277.60	321.00	146.27	269.21	S15°39'56"E	49°32'34"
C10	220.44	50.00	63.82	78.78	N42°20'47"W	252°32'53"
C11	498.86	497.00	272.73	478.19	S00°31'23"W	57°30'43"
C12	164.51	250.00	85.36	161.56	S79°57'28"E	37°42'09"
C13	232.95	170.00	138.93	215.15	N39°21'27"E	78°30'46"
C14	113.91	279.00	57.71	113.15	S66°58'39"W	23°23'23"
C15	225.39	226.00	121.64	217.23	N08°35'51"W	57°7'52"
C16	163.71	440.00	85.19	160.06	N79°15'02"W	21°18'51"
C17	9.33	220.00	4.66	9.33	N58°36'39"W	02°25'44"
C18	29.18	45.00	15.12	28.67	N71°49'53"W	37°09'04"
C19	41.75	45.00	22.54	40.36	N25°36'54"W	53°12'14"

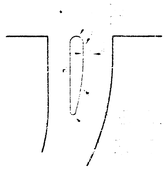
LINE TABLE		
LINE	LENGTH	BEARING
L1	248.83	N25°13'58"W
L2	146.26	S57°31'05"W
L3	19.48	N08°13'58"W
L4	71.54	S57°31'05"W
L5	80.41	N81°11'27"E
L6	25.96	N06°28'46"E
L7	208.65	N29°16'45"E
L8	139.46	S00°06'04"W
L9	164.19	S78°56'50"W
L10	53.20	N39°57'08"W
L11	166.71	S34°53'02"W
L12	140.06	S59°43'32"E
L13	88.51	N00°23'35"W
L14	23.65	N29°16'45"E

MINIMUM BUILDING ELEVATIONS		
Minimum Low Opening Elevation		
Location	NGVD Datum	City Datum
Lots 1-5, Blk 1	1316.0	128.8
Lots 6-19, Blk 1	1327.3	139.9
Lots 12-32, Blk 2	1326.1	139.0
Lots 1-9, Blk 6	1335.0	147.6
Lot 10, Blk 6	1335.0	147.6
Lots 21-25, Blk 6	1335.0	147.6

Exception to Plat







N

0 50 100 200
SCALE IN FEET 1" = 100

LEGEND

- Utility Easement
- Drainage Easement
- Iron Set
- Building Setback
- Curve Label
- Line Label
- Center Line
- Monument Found

NOTE:

This Addition is subject to the conditions of the Planned Unit Development PUD 2000-00001

BENCHMARKS:

NGVD Datum

1. Railroad spike in power pole, approximately 20' south and 30' east of W 1/4 Corner, Section 35-27-2E
   Elevation: 1349.65
2. Square on south hub guard of RCBC just west of NW Corner of Section 35-27-2E
   Elevation: 1311.90

DENNY E. HILL LICENSED LS-984 REGISTERED SURVEYOR
8/14/01

EQUESTRIAN ESTATES

An Addition to Wichita - Sedgwick County, Kansas

(Associated Zone Case PUD 2000-0001)

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C20	442.12	463.00	239.54	425.61	S60°52'57"E	54°42'42"
C21	130.56	417.90	65.81	130.02	N69°29'42"W	17°54'01"
C22	242.62	453.00	124.30	239.73	N16°29'01"E	30°41'15"
C23	92.36	253.00	46.70	91.84	N10°43'54"W	20°54'58"
C24	278.77	336.00	144.12	267.36	N35°15'15"W	47°31'58"
C25	282.28	50.00	35.62	56.22	N73°12'54"E	290°00'42"
C26	358.23	427.00	190.42	347.82	N39°25'47"W	48°04'07"
C27	206.70	225.00	111.69	199.18	N48°22'01"E	53°49'56"
C28	188.51	427.00	96.04	187.06	N29°27'08"W	25°18'04"
C29	185.42	900.00	93.46	184.99	N85°40'51"E	11°47'47"
C30	164.25	250.00	84.89	161.47	N83°38'01"W	37°38'05"
C31	252.29	50.00	35.60	58.00	S84°29'02"E	289°05'58"
C32	81.96	250.00	41.36	81.61	S15°00'04"W	18°47'16"
C33	111.97	903.00	56.15	111.89	S05°38'44"W	7°06'22"
C34	141.03	800.00	70.64	140.85	S13°47'11"E	10°06'11"
C35	62.10	205.00	31.29	61.86	S11°33'53"E	17°21'22"
C36	53.66	205.00	26.93	53.50	N12°15'14"W	14°59'51"
C37	282.26	50.00	35.62	56.22	S86°47'11"W	323°30'42"
C38	38.83	800.00	44.64	56.37	N85°33'26"W	13°56'47"
C39	77.45	45.00	44.77	43.47	N44°48'48"E	49°40'48"
C40	282.26	50.00	35.90	56.00	N04°31'15"E	289°54'52"
C41	82.74	427.00	41.42	82.63	N67°19'47"W	11°23'57"
C42	164.93	190.00	89.08	159.96	N43°42'57"W	52°24'45"
C43	133.37	350.00	68.11	131.79	S58°43'21"W	21°49'37"
C44	84.96	190.00	54.78	154.24	N25°25'44"E	25°37'47"
C45	282.26	50.00	35.90	56.00	S86°47'11"W	323°30'42"
C46	198.96	217.50	96.10	192.02	N77°22'11"E	52°24'45"
C47	202.73	382.50	103.81	200.36	N76°11'34"E	30°22'02"

Exception to Plat

Reserve F

Reserve G

Lot 1
Block 4

Lot 1
Block 5

Reserve A

Reserve E

Reserve C

Block 1

Block 2

Block 6

Stampede

Triple Crown

Triple Crown Ct.

Horseback

Mustang St.

Mustang Cir.

Equestrian Ct.

Equestrian Cir.

Equestrian St.

CL 127th Street East

Common Area Line

Common Access Corridor

Bearing Basis (Assumed Direction)

Common Pole Line Drainage Easement
Film 1086, Page 177
A 50 foot building setback from the easement is required

Reserve G Details

0 50 100 200
SCALE IN FEET 1" = 100

LEGEND

Utility Easement
Drainage Easement
Iron Set
Building Setback
Curve Label
Line Label
Center Line
Monument Found

NOTE:

This Addition is subject to the conditions of the Planned Unit Development PUD 2000-0001

BENCHMARKS:

NGVD Datum

1. Railroad spike in power pole, approximately 25 south and 5' west of W 1/4 Corner Section 35-27-2E Elevation 1344.65
2. Square on south nut guard of PG&E unit west in NW corner of Section 35-27-2E Elevation 1311.96

LINE TABLE		
LINE	LENGTH	BEARING
L14	38.66	S31°15'30"E
L15	92.74	S00°15'37"E
L16	132.71	S31°41'04"W
L17	255.26	N00°39'51"E
L18	106.80	N89°27'13"W
L19	85.64	S74°56'59"W
L20	46.22	N45°36'15"W
L21	257.23	S10°22'45"W
L22	90.71	N63°36'28"E
L23	64.91	N00°15'37"W
L24	117.82	S71°12'46"E
L25	57.73	N20°34'12"W
L26	65.45	N03°12'49"W
L27	108.75	S85°58'41"E
L28	89.87	N77°05'47"E
L29	192.07	N26°28'44"E
L30	399.67	S71°32'12"E
L31	69.13	N51°41'10"E
L32	39.62	S21°07'03"W
L33	74.82	N63°52'57"W
L34	46.99	S21°07'03"W
L35	35.99	N16°28'48"W
L36	81.85	S00°49'24"E
L37	9.74	S10°22'45"W
L38	323.08	N89°27'13"W
L39	28.43	S60°07'42"W
L40	376.85	N89°30'16"W

MINIMUM BUILDING ELEVATIONS		
Minimum Low Opening Elevation		
Location	NGVD Datum	City Datum
Lots 1-5, Blk 1	1336.0	128.6
Lots 6-19, Blk 1	1327.3	139.9
Lots 12-32, Blk 2	1326.4	139.0
Lots 1-9, Blk 6	1335.0	147.6
Lot 10, Blk 6	1335.0	147.6
Lots 21-26, Blk 6	1338.0	147.6

KENNETH E. HILL LICENSED LS-984 KANSAS LAND SURVEYOR
8/23/01

EQUESTRIAN ESTATES

An Addition to Wichita - Sedgwick County, Kansas

(Associated Zone Case PUD 2000-0001)