WATER SUPPLY LINE

TO SERVE

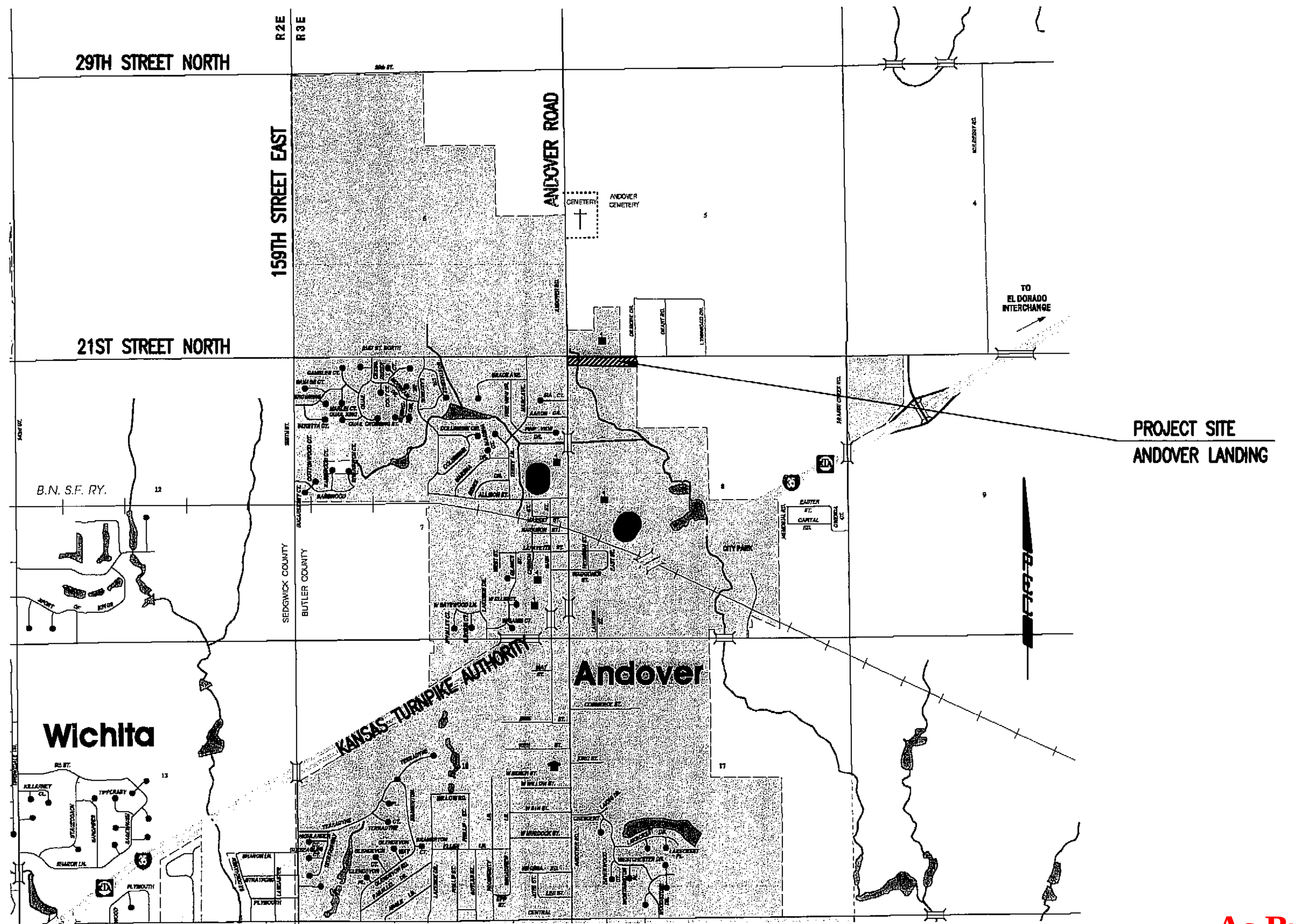
ANDOVER LANDING

CITY OF ANDOVER, BUTLER COUNTY, KANSAS

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)

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

INDEX OF SHEETS



LOCATION MAP

CONSTRUCTION SCHEDULE/SEQUENCE

THE CONTRACTOR FOR THE FOLLOWING PROJECTS SHALL COORDINATE THEIR EFFORTS IN THIS AREA SUCH THAT ANY NECESSARY SIMULTANEOUS CONSTRUCTION CAN PROCEED CONCURRENTLY WITHOUT CAUSING UNDUE DELAYS. THE CONSTRUCTION TIME FRAME IS OUTLINED BELOW. EROSION PROTECTION ITEMS AS SHOWN ON THE EROSION CONTROL PLAN SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED THROUGHOUT THE PROJECT.

THE SEQUENCE AS SHOWN BELOW IS INTENDED AS A GUIDE FOR MAJOR ITEMS ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL MAJOR AND MINOR ITEMS. VARIATIONS TO THE SEQUENCING SHOWN MAY BE USED AS APPROVED BY THE ENGINEER.

1. THE CONTRACTOR SHALL INSTALL ALL SILT FENCE BARRIER AROUND THE PERIMETER OF PROJECT AND THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL THEN PROCEED WITH CONSTRUCTION OF WATER SUPPLY LINE (35-10242-003-0161) AND CONCURRENTLY PROCEED WITH CONSTRUCTION OF THE SANITARY SEWER (35-10242-001-0161).
3. THE CONTRACTOR SHALL THEN PROCEED WITH THE CONSTRUCTION OF THE WATER DISTRIBUTION PORTION (35-10242-002-0161).
4. THE CONTRACTOR SHALL THEN PROCEED WITH THE GRADING PORTION OF THE PROJECT AND CONCURRENTLY INSTALL ALL OF THE STORM SEWER PIPE AND STRUCTURES. THE CONTRACTOR SHALL THEN PROCEED WITH THE REMAINDER OF THE PROJECT WORK INCLUDING SETTING STORM SEWER STRUCTURE TOPS, PAVING AND SIDEWALK IMPROVEMENTS, FINAL GRADING AND SEEDING (35-10242-000-0161).

THE CONTRACTOR SHALL COMPLETE ALL ITEMS OF WORK FOR ANDOVER LANDING BY DECEMBER 31, 2010.

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER UTILITIES

Water Mains (Public Works) ____ 8/19/10

Water Mains (Water Utilities) ____ 08/20/2010

NOTE TO CONTRACTORS

PUBLIC PROPERTY:
Inspection and testing for the waterline 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 licensed in the State of Kansas. 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).

As Built Plans
Contractor: WB Carter Construction Co.
Inspector: Dick Messerli, Poe & Associates, Inc.
.pdf by: MLT, 7/13/2011

AUGUST 2010

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

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Plot Scale 1:1 08-19-2010 9:01:25 AM by JAN
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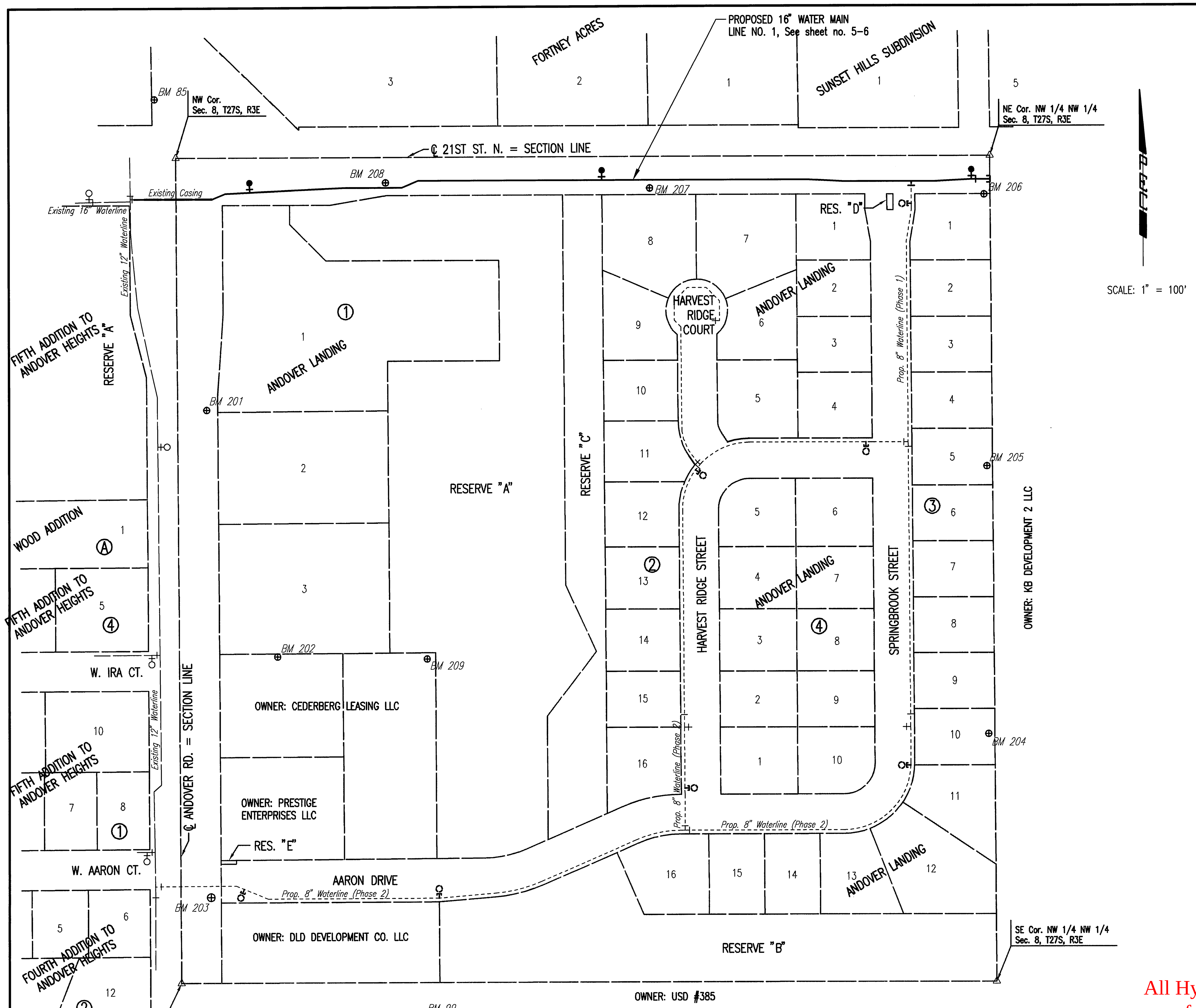

BENCHMARK LIST (NGVD29)

BM 85 – CHISELED "◘" ON THE CENTER OF THE CURB INLET ON THE W SIDE OF ANDOVER ROAD, ±150' N OF 21ST STREET N.
ELEV. = 1340.52

BM 201 – CHISELED "◘" ON THE CENTER OF THE CURB INLET ON THE E SIDE OF ANDOVER ROAD, ±400' S OF 21 STREET N.
ELEV. = 1339.58

BM 202 – CHISELED "◘" ON THE CONCRETE BASE FOR THE 2ND LIGHT POLE E OF ANDOVER ROAD ON THE S SIDE OF THE PET RESORT DRIVE.
ELEV. = 1342.86

BM 203 – RAILROAD SPIKE IN THE E FACE OF THE POWER POLE ON THE E SIDE OF ANDOVER ROAD NEAR THE NW CORNER OF THE CHURCH PROPERTY.
ELEV. = 1341.07

BM 204 – CHISELED "X" ON THE N RIM OF THE SANITARY SEWER MANHOLE. APPROXIMATELY 925 FEET SOUTH OF THE CENTERLINE OF 21ST ST. NORTH.
ELEV. = 1337.17

BM 205 – CHISELED "X" ON THE N RIM OF THE SANITARY SEWER MANHOLE. APPROXIMATELY 494 FEET SOUTH OF THE CENTERLINE OF 21ST ST. NORTH.
ELEV. = 1343.13

BM 206 – CHISELED "X" ON THE N RIM OF THE SANITARY SEWER MANHOLE IN THE NE CORNER OF THE FIELD, ON THE S SIDE OF 21ST STREET N, APPROXIMATELY ¼ MILE EAST OF ANDOVER ROAD.
ELEV. = 1350.60

BM 207 – RAILROAD SPIKE IN THE S FACE OF THE POWER POLE, ON THE S SIDE OF 21ST STREET N. APPROXIMATELY 766 FEET EAST OF ANDOVER ROAD.
ELEV. – 1343.15

BM 208 – CHISELED "◘" ON THE E WING WALL OF THE RCBC, ON THE S SIDE OF 21ST STREET N. APPROXIMATELY 339 FEET EAST OF ANDOVER ROAD.
ELEV. – 1340.20

BM 209 – CHISELED "◘" ON THE TOP OF THE E SIDE OF THE LIGHT POLE BASE ON THE E SIDE OF THE TRASH BIN AT THE E CURB OF THE PARKING LOT FOR THE "PET RESORT". APPROXIMATELY 400 FEET EAST OF ANDOVER ROAD.
ELEV. – 1338.50

LEGEND

EXISTING WATER MAIN
PROPOSED WATER MAIN
EXISTING WATER VALVE
PROPOSED WATER VALVE
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
EXISTING BLOW OFF
PROPOSED BLOW OFF
PROPOSED HYDRANT TEE w/FUTURE FIRE HYDRANT

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE NGVD29 DATUM.

2. AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT 1 (800) 344-7233 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.

3. THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION TO ADVISE THEM OF THE INTENDED WORK AND OF HIS PROPOSED SCHEDULE:

   CITY OF ANDOVER
   LES MANGUS, PUBLIC WORKS
   (316)733-1303, EXT. 223

4. THE BURIED UTILITIES AS LOCATED ON THE PLANS ARE APPROXIMATE LOCATIONS ONLY. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL HAVE ALL BURIED LINES LOCATED AND FLAGGED IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REVIEW ALL BURIED LINES LOCATED TO DETERMINE IF CONFLICTS EXIST. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

5. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

6. ALL TRENCHING AND BACKFILLING SHALL BE TYPE I OR III UNLESS NOTED OTHERWISE ON THE PLANS.

7. THE CONTRACTOR SHALL NOT BURY VALVE BOXES OR FIRE HYDRANTS THAT HAVE ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND. THE GROUND AROUND SUCH VALVE BOXES OR FIRE HYDRANTS AND ALONG THE WATERLINE ALIGNMENT SHALL BE BACKFILLED TO THE APPROXIMATE ELEVATION OF THE PROPOSED TOP OF CURB ELEVATION SHOWN ON THE PLAN/PROFILE SHEETS. THE CONTRACTOR SHALL PROVIDE DRAINAGE AWAY FROM THESE VALVE BOXES, FIRE HYDRANTS AND WATERLINES BY CONSTRUCTION OF TEMPORARY DITCHES OR SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLED BID PRICE FOR VALVES, FIRE HYDRANTS, OR PIPE.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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. PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL FLAG AND REFERENCE ALL PROPERTY CORNERS THAT MAY BE DISTURBED BY CONSTRUCTION OPERATIONS, AND VERIFY THESE IN THE FIELD IN THE PRESENCE OF THE ENGINEER AND THE CONTRACTOR'S SURVEYOR. AFTER CONSTRUCTION AND BEFORE THE FINAL INSPECTION, A LETTER SIGNED AND SEALED BY THE LICENSED LAND SURVEYOR CERTIFYING REPLACEMENT OF ALL DISTURBED PROPERTY CORNERS SHALL BE SUBMITTED TO THE ENGINEER.

9. EASEMENTS AND RIGHT-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ANY ADDITIONAL TEMPORARY EASEMENTS OR RIGHT-OF-WAY THAT HE DESIRES TO USE IN COMPLETING THE WORK.

10. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTION OF PIPE, AND COUPLERS SHALL BE SUBSIDIARY TO THE PRICE BID FOR PIPE IN PLACE.

11. THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING WATER MAINS WITH THE CITY SUCH THAT THERE IS A MINIMUM OF DISRUPTION TO THE CITY.

12. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO 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 WILL 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 MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.

13. ALL APPROVED EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE STOCKPILED WITHIN ANDOVER LANDING AT NO ADDITIONAL COST TO THE OWNER, EXCESS EXCAVATION SHALL NOT BE WASTED IN STREET RIGHT OF WAY, EASEMENTS, OR FLOODPLAIN. STOCKPILE LOCATIONS SHALL BE AS DIRECTED BY THE DEVELOPER AND IN ACCORDANCE WITH GENERAL NOTE 12 ABOVE.

14. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE PLANS. THE REPLACEMENT OF ALL THE AFOREMENTIONED ITEMS, INCLUDING SEEDING, FERTILIZER, AND MULCHING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".

15. THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER. COSTS FOR TREE/SHRUB REMOVAL AND TRIMMING REGARDLESS OF SIZE SHALL BE CONSIDERED SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE CLEARING AND RESTORATION".

16. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLANTED WITH GRASS AND FERTILIZED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. EXISTING GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED WITH THE SAME TYPE OF GRASS AS WAS REMOVED. PASTURES AND NATIVE GRASSED AREAS SHALL BE RESEEDED IN ACCORDANCE WITH THE CRITERIA SHOWN BELOW:

    NATIVE GRASS MIX:
    BIG BLUESTEM – 8 LBS/ACRE
    BROME GRASS – 8 LBS/ACRE
    SWITCH GRASS – 3 LBS/ACRE
    WESTERN WHEATGRASS – 8 LBS/ACRE
    INDIAN GRASS – 8 LBS/ACRE
    LITTLE BLUESTEM – 5 LBS/ACRE
    SIDE OATS GRAMA – 5 LBS/ACRE
    TOTAL = 45 LBS/ACRE
    SEED APPLICATION = 1 LB/1,000 SQ. FT.
    FERTILIZER APPLICATION (N-P-K) = 12-24-12
    MULCH = PRAIRIE HAY
    MULCH APPLICATION = 90 LBS/1,000 SQ. FT.

    ALL COSTS FOR SEEDING AND FERTILIZING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".

17. THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 16 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED. ALL COSTS FOR TEMPORARY RYE GRASS SEEDING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".

18. WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 42 INCHES, UNLESS SHOWN OTHERWISE.

19. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL VALVE BOX COVERS.

20. THE CONTRACTOR SHALL TAKE CARE TO PREVENT SILT AND DEBRIS FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION. PIPES OR STRUCTURES WHICH CONTAIN MATERIALS FROM THE CONTRACTORS ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT HIS OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.

21. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED AND APPROVED BY THE ENGINEER. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTIONS OF PIPE, AND COUPLERS SHALL BE SUBSIDIARY TO OTHER PAY ITEMS OF WORK.

22. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TO ENSURE SAFETY AS DIRECTED IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

23. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.

24. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO THE START OF CONSTRUCTION.

25. FIRE HYDRANT BURY DEPTHS ARE BASED ON THE TOP ELEVATION OF THE PROPOSED WATER MAIN AND THE APPROXIMATE PROPOSED GROUND ELEVATION AT THE LOCATION OF THE FIRE HYDRANT. THE CONTRACTOR SHALL VERIFY THESE ELEVATIONS PRIOR TO INSTALLING FIRE HYDRANTS. ANY MODIFICATIONS REQUIRED TO THE FIRE HYDRANT BURY DEPTH DUE TO THE CONTRACTOR'S FIELD ADJUSTMENTS TO THE WATER MAIN PROFILE SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. PROPOSED ADJUSTMENTS MUST BE APPROVED BY THE RESIDENT INSPECTOR PRIOR TO CONSTRUCTION.

26. EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.

27. THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS DETAILED. THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED ON THE EROSION CONTROL PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL SHOWN THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION.

28. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL RE-ESTABLISH CONTROL POINTS AND BENCH MARKS AND VERIFY THEIR ACCURACY.

All Hydrants and Valves
are of the CLOW variety.

As-Built Record
by MLT, 7/13/2011

SEE SHEETS NO. 3–4
FOR PLAT COORDINATES

NOTE: WATERLINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER DEPARTMENT REPRESENTATIVE IS ON SITE.

MICHAEL D. KELSEY
LICENSED
13944
8/19/10
KANSAS
PROFESSIONAL ENGINEER

No.	Revision	By	Date

ANDOVER LANDING
WATER SUPPLY LINE

KEY MAP AND GENERAL NOTES

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by	MDK	Job No.	35-10242-03-161	Sht. 2 of 11
Drawn by	JAN	Date	MAY 2010	

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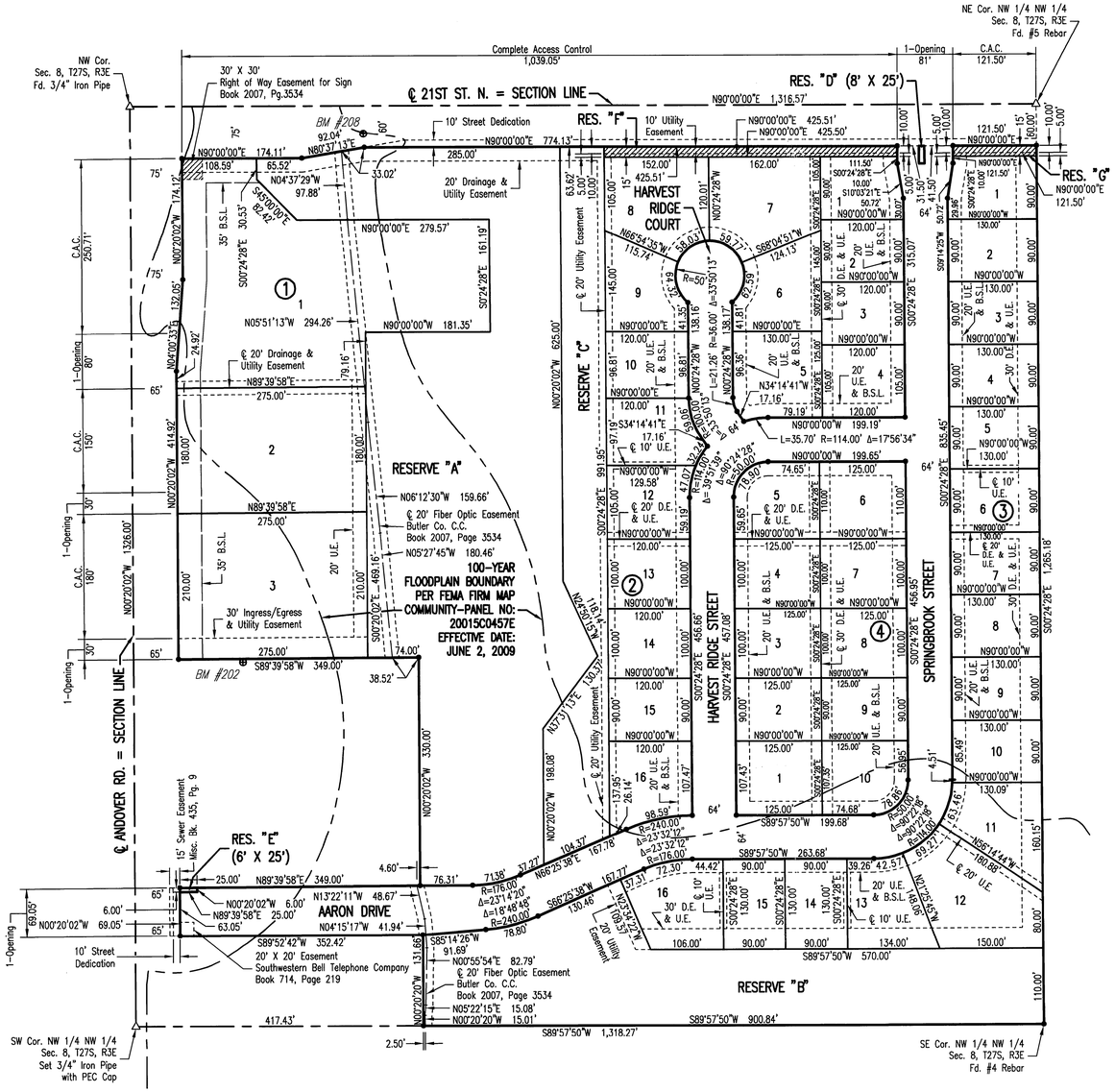
FINAL PLAT

A PORTION OF THE NORTHWEST QUARTER, SECTION 8, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE 6TH PRINCIPAL MERIDIAN

ANDOVER LANDING

AN ADDITION TO ANDOVER, BUTLER COUNTY, KANSAS



SCALE: 1" = 100'

LEGEND

•	Set 1/2" Rebar w/PEC Cap Unless Otherwise Noted
△	Section Corner
C.A.C.	Complete Access Control
B.S.L.	Building Setback Line
U.E.	Utility Easement
D.E.	Drainage Easement
D.E. & U.E.	Drainage & Utility Easement

As-Built Record
by MLT, 7/13/2011

No.	Revision	By	Date

ANDOVER LANDING
WATER SUPPLY LINE

PLAT

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

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Designed by	MDK	Job No.	35-10242-03-161
Drawn by	JAN	Date	MAY 2010

Sht. 3 of 11

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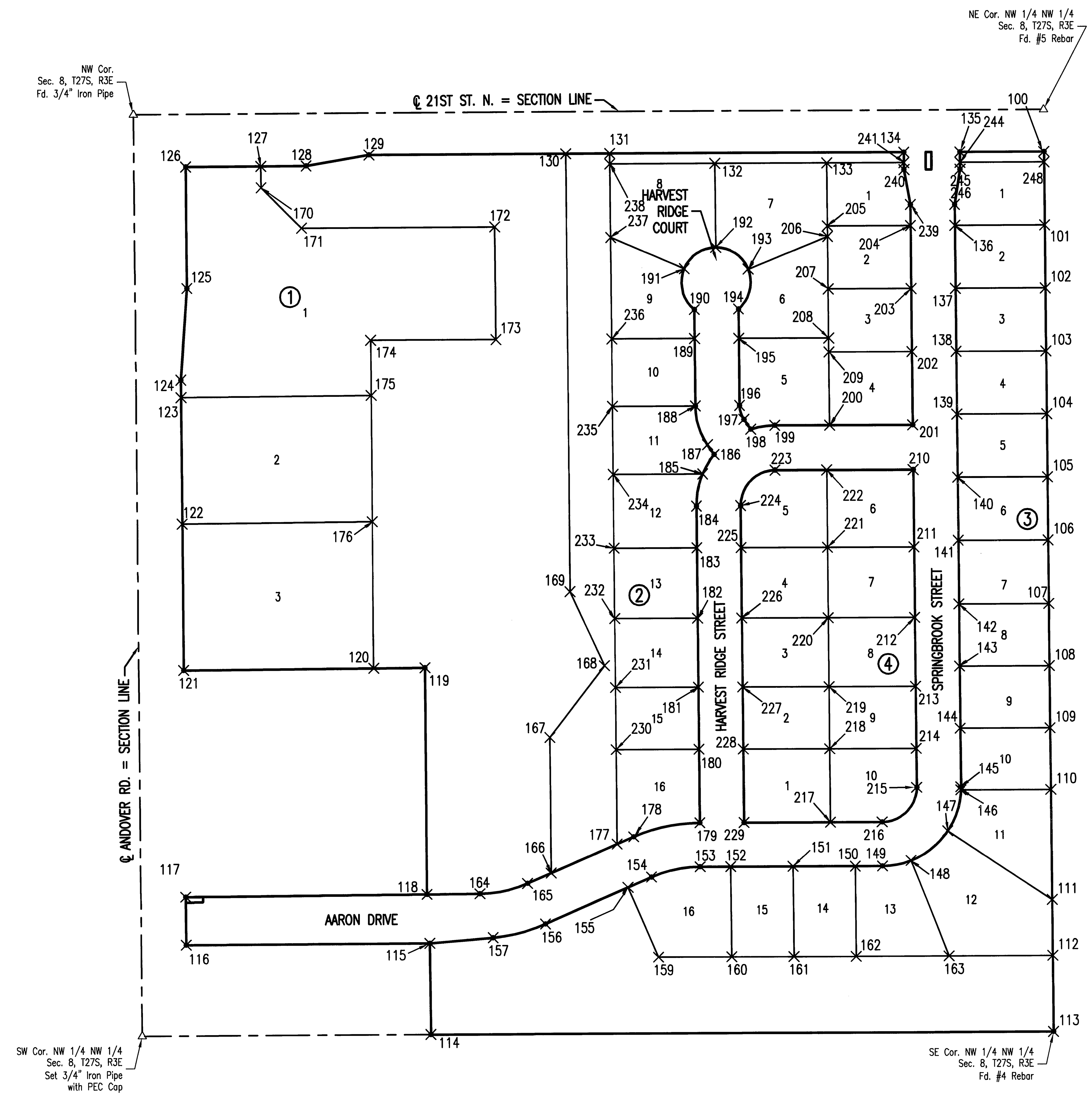
A PORTION OF THE NORTHWEST QUARTER, SECTION 8, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE 6TH PRINCIPAL MERIDIAN

ANDOVER LANDING

AN ADDITION TO ANDOVER, BUTLER COUNTY, KANSAS



SCALE: 1" = 100'

LEGEND

- • Set 1/2" Rebar w/PEC Cap Unless Otherwise Noted
- △ Section Corner

COORDINATE LIST

Point #	Northing	Easting
100	4940.0000	6316.9970
101	4835.0000	6317.7443
102	4745.0000	6318.3849
103	4655.0000	6319.0254
104	4565.0000	6319.6660
105	4475.0000	6320.3065
106	4385.0000	6320.9471
107	4295.0000	6321.5876
108	4205.0000	6322.2282
109	4115.0000	6322.8687
110	4025.0000	6323.5092
111	3864.8511	6324.6491
112	3784.8531	6325.2184
113	3674.8536	6326.0013
114	3674.2857	5425.1615
115	3805.9434	5424.3826
116	3805.1955	5071.9639
117	3874.2479	5071.5615
118	3876.2817	5420.5556
119	4206.2761	5418.6325
120	4205.8448	5344.6338
121	4204.2423	5069.6384
122	4414.2387	5068.4147
123	4594.2357	5067.3657
124	4619.1552	5067.2205
125	4750.8813	5076.4530
126	4925.0000	5075.4383
127	4925.0000	5184.0294
128	4925.0000	5249.5483
129	4940.0000	5340.3554
130	4940.0000	5625.3603
131	4940.0000	5688.9811
132	4925.0000	5841.0917
133	4925.0000	6003.0958
134	4940.0000	6114.4919
135	4940.0000	6195.4940
136	4835.0000	6187.7410
137	4745.0000	6188.3816
138	4655.0000	6189.0221
139	4565.0000	6189.6627
140	4475.0000	6190.3032
141	4385.0000	6190.9438
142	4295.0000	6191.5843
143	4205.0000	6192.2249
144	4115.0000	6192.8654
145	4029.5096	6193.4739
146	4025.0000	6193.4167
147	3965.3557	6174.2592
148	3922.5790	6121.1265
149	3914.6983	6079.5486

COORDINATE LIST

Point #	Northing	Easting
150	3914.6735	6040.2932
151	3914.6168	5950.2914
152	3914.5600	5860.2895
153	3914.5320	5815.8674
154	3899.8455	5745.5938
155	3884.9237	5711.3949
156	3832.7506	5591.8200
157	3813.5509	5515.7544
159	3784.4938	5755.2147
160	3784.5606	5861.2147
161	3784.6173	5951.2166
162	3784.6741	6041.2185
163	3784.7586	6175.2184
164	3876.7264	5496.8667
165	3891.4100	5566.2256
166	3906.3139	5600.3836
167	4104.3921	5599.2293
168	4207.7908	5678.6281
169	4315.0061	5629.0024
170	4894.4686	5184.2467
171	4836.1868	5242.5286
172	4836.1868	5522.0986
173	4675.0000	5523.2458
174	4675.0000	5341.8997
175	4595.8382	5342.3610
176	4415.8413	5343.4100
177	3948.0513	5696.0410
178	3958.5049	5719.9994
179	3978.5320	5815.8271
180	4086.0000	5815.0622
181	4176.0000	5814.4217
182	4276.0000	5813.7100
183	4376.0000	5812.9983
184	4435.1887	5812.5770
185	4481.0000	5821.8316
186	4508.4409	5838.5496
187	4522.6267	5828.8926
188	4578.1880	5811.5592
189	4675.0000	5810.8702
190	4716.3525	5810.5759
191	4774.6071	5796.3073
192	4804.9967	5841.9458
193	4773.6629	5888.6872
194	4716.8079	5874.5743
195	4675.0000	5874.8718
196	4578.6435	5875.5576
197	4558.6414	5881.7976
198	4544.4556	5891.4546
199	4550.0000	5926.5741
200	4550.0000	6005.7648

COORDINATE LIST

Point #	Northing	Easting
201	4550.0000	6125.7678
202	4655.0000	6125.0205
203	4745.0000	6124.3800
204	4835.0000	6123.7394
205	4835.0000	6003.7364
206	4820.0000	6003.8431
207	4745.0000	6004.3769
208	4675.0000	6004.8751
209	4655.0000	6005.0175
210	4486.0000	6126.2233
211	4376.0000	6127.0062
212	4276.0000	6127.7179
213	4176.0000	6128.4296
214	4086.0000	6129.0702
215	4029.0541	6129.4755
216	3978.6983	6079.5083
217	3978.6512	6004.8310
218	4086.0000	6004.0670
219	4176.0000	6003.4265
220	4276.0000	6002.7148
221	4376.0000	6002.0030
222	4486.0000	6001.2201
223	4486.0000	5926.5741
224	4435.6442	5876.5754
225	4376.0000	5876.9999
226	4276.0000	5877.7116
227	4176.0000	5878.4233
228	4086.0000	5879.0639
229	3978.5724	5879.8284
230	4086.0000	5695.0592
231	4176.0000	5694.4186
232	4276.0000	5693.7069
233	4376.0000	5692.9952
234	4481.0000	5692.2479
235	4578.1880	5691.5562
236	4675.0000	5690.8672
237	4820.0000	5689.8352
238	4925.0000	5689.0879
239	4865.0624	6123.5255
240	4915.0006	6114.6698
241	4925.0000	6114.5987
244	4925.0000	6195.6007
245	4915.0006	6195.6719
246	4864.9414	6187.5279
248	4925.0000	6317.1038

As-Built Record
by MLT, 7/13/2011

No.	Revision	By	Date

ANDOVER LANDING
WATER SUPPLY LINE

PLAT COORDINATES

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by	MDK	Job No.	35-10242-03-161
Drawn by	JAN	Date	MAY 2010

Sht. 4 of 11

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Plot Scale 1:100 08-18-2010 4:26:05 PM by JAN
Q:\2010\10242\003\10242-003-C-BUBBLE MAP


CAUTION!!!
Buried Phone Line **
Buried Line shall be lowered by AT&T. Coordinate relocation with AT&T, Mr. Jason Edwards at 268-2008. (Provide at least 2 weeks notice) Relocation costs if any to be borne by AT&T.
N: 4,943.3233, E: 5,080.4791
WL 1, Sta. 11+50.04
1- 16" 22 1/2" Bend
Defl.= 19°20'49"
CAUTION !!!
Buried Telephone **
& Fiber Optic (AT&T)
CAUTION!!!
3- Deadman
Deadman to be removed and reset by Westar Energy. Coordinate with Westar Energy, Mr. Randy Truitt at 261-6512.
(Provide at least 2 weeks notice)
Removal & resetting costs if any to be subsidiary to "Site Clearing and Restoration".
CAUTION!!!
Power Pole (Westar Energy)
Contractor to restrain pole in place thru construction. At least 72 hours prior to start of construction, coordinate restraint with Westar Energy, Mr. Randy Truitt at 261-6512.
N: 4,952.1941, E: 5,271.6407
WL 1, Sta. 13+41.41
Horizontal Deflection
Defl.= 2°44'28"
N: 4,952.0562, E: 5,365.6050
WL 1, Sta. 14+35.37
1- 16" 22 1/2" Bend
Defl.= 22°30'00"
N: 4,963.0000, E: 5,392.1358
WL 1, Sta. 14+64.07
1- 16" 22 1/2" Bend
Defl.= 22°24'57"
Hydt. Valve
19" South of Hydt.
N: 4,963.0000, E: 5,688.8174
WL 1, Sta. 17+60.75
1- Fire Hydrant Assembly
L= 4'
Top Valve Box El.= 1341.7
FH Bury Line El.= 1342.2
SCALE:
PLAN: LAT. & LONG.
PROFILE: HORIZ. SAME AS ABOVE
VERT.
N: 4,934.6831, E: 5,059.0978
WL 1, Sta. 11+26.98
1- 16" 22 1/2" Bend
Defl.= 22°00'14"
N: 4,945.1450, E: 5,119.7345
WL 1, Sta. 11+89.34
1- Fire Hydrant Assembly
L= 17.5'
Top Valve Box El.= 1340.4
FH Bury Line El.= 1340.8
Hydt. Valve
14' South of Hydt.
CAUTION !!!
Prop. 3-8'x3' RCB
Storm Water Sewer
(by others)
CAUTION !!!
Buried Fiber Optic
(Butler Co. C.C.)
CAUTION !!!
Prop. 2-8'x3' RCB
Storm Water Sewer
(by others)
Remove and reset signs as required.
Sta. 15+76.00 to Sta. 16+01.00
Install 25 L.F. Steel Casing by open cut.
Min. I.D. = 26"
CAUTION !!!
Existing 8"
Sanitary Sewer
N: 4,934.6831, E: 4,949.0978
WL 1, Sta. 10+16.98
Beginning of Existing Waterline Casing *
CAUTION !!!
Existing 18"
Sanitary Sewer
CAUTION !!!
4" Steel Gas Line
(KGS) **
N: 4,934.6831, E: 4,932.1176
WL 1, Sta. 10+00.00
Existing Butterfly Valve Assembly *
Remove 16" Cap and begin new 16" water main installation.
NW Corner, Sec. 8, T27S, R3E
3/4" Iron Pipe
21ST STREET NORTH
Asphalt
Concrete
Prop. 10' Sidewalk (by others)
Conc. Curb & Gutter
Prop. RCB Extension (by others)
Guard Rail
Retaining Wall
BM 208
Sign
Prop. Pavement (by others)
Overhead Elec. & Cable TV (Westar & Cox)
Overhead Elec. & Cable TV (Westar & Cox)
Exist. WL Casing
Buried Telephone (AT&T)
16" Waterline (City of Wichita) Air Pump
Prop. 10' Sidewalk (by others)
RESERVE "A"
FIFTH ADDITION TO ANDOVER HEIGHTS
12" Waterline (City of Wichita)
4" Gas Line (KGS)
ANDOVER ROAD
Conc. Curb & Gutter
30' X 30' Right of Way Easement for Sign Book 2002, Pg 3534
Church Sign
BCBC Sign
Apts. Sign
Trees
San. Sewer
Prop. RCB Extension (by others)
ANDOVER LANDING
RESERVE "A"
Overhead Electric and Cable TV (Westar & Cox)
18" San. Sewer
20' Drainage & Utility Easement
RESERVE "C"
Silt Fence Barrier
28.00'- 16" DI CL SJ Pipe (Sta. 12+68 to Sta. 13+06)
38.00'- 16" DI CL SJ Pipe (Sta. 13+86 to Sta. 14+14)
Ditch Check (Typ. of 1)
Silt Fence Barrier
28.70'- 16" Pipe
78.66'- 16" Pipe
21.37'- 16" Pipe
23.06'- 16" Pipe
Silt Fence Barrier
296.68'- 16" Pipe
Remove and replace 6 L.F. Concrete sidewalk in kind.
126.98'- 16" Pipe (use wood skids per City of Wichita standards)
CAUTION !!!
Existing 18" ***
Sanitary Sewer
39.30'- 16" Pipe
80.00'- 16" Pipe
WATERLINE NO. 1
- Denotes Ditch Check to be installed. See sheet no. 8. (To be Bid as Waterline Item.)
- Denotes Silt Fence to be installed. See sheet no. 8. (To be Bid as Waterline Item.)
Unless noted otherwise, elevations shown are top of pipe
BEGIN LINE NO. 1
Exist. 18" Sanitary Sewer
22 1/2° Bend
Buried Telephone **
Buried Telephone and Fiber Optic
22 1/2° Bend
Fire Hydrant
4" Steel Gas Line
Prop. 3-8'x3' RCB
Horizontal Deflection
Buried Fiber Optic
Prop. 2-8'x3' RCB
22 1/2° Bend
22 1/2° Bend
Exist. 8" Sanitary Sewer
Fire Hydrant
Existing Ground
Proposed Ground (by others)
Top of Proposed 16" Water Main
Existing Steel Casing*
Steel Casing
1360
1355
1350
1345
1340
1335
1330
1325
1320
+00.00
+26.98
+50.04
+89.34
+50.00
+06.00
+41.41
+86.00
+14.00
+35.37
+64.07
+76.00
+01.00
+60.75
1336.95 *
1336.95
1336.95
1336.95
1335.81
1335.23
1332.50
1332.00
1332.63
1333.15
1333.15
1333.15
1334.00
1335.90
1335.74
1337.30
1337.30
1337.56
1337.71
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
PLAN
PROFILE
BY
DATE
CHECKED
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Plot Scale 1:40 08-18-2010 4:29:55 PM by JAN
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* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 16" BUTTERFLY VALVE AT STATION 10+00.00 AND THE EXISTING WATERLINE CASING, BEGINNING AT STA. 10+16.98, TO VERIFY PIPE SIZE, TYPE, FITTINGS, AND HORIZONTAL AND VERTICAL LOCATION. THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

** PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING BURIED PHONE/FIBER OPTIC LINES AND 4" STEEL GAS LINE TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS. THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

*** CONTRACTOR SHALL EXCAVATE THE EXISTING SANITARY SEWER AND VERIFY ITS HORIZONTAL AND VERTICAL LOCATION. PIPE LOCATION SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. WHERE JOINTS ON THE EXISTING SANITARY SEWER ARE WITHIN TEN (10) FEET OF THE PROPOSED WATERLINE, THE CONTRACTOR SHALL CONCRETE ENCASE ALL SANITARY SEWER JOINTS A MINIMUM OF 1.5' EACH DIRECTION FROM THE JOINT TO A DISTANCE OF TEN (10) FEET FROM THE PROPOSED WATERLINE CROSSING. ALL WORK ASSOCIATED WITH CONCRETE ENCASING THE JOINTS ON THE EXISTING SANITARY SEWER SHALL BE INCLUDED IN THE LUMP SUM BID FOR "CONCRETE ENCASEMENT ON EXISTING SANITARY SEWER.

As-Built Record
by MLT, 7/13/2011

MICHAEL D. KEYER LICENSED 13944 8/1/10 KANSAS PROFESSIONAL ENGINEER

ANDOVER LANDING
WATER SUPPLY LINE
WATERLINE NO. 1
CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed By MDK | Job No. 35-10242-003-0161
Drawn By JAN | Date MAY 2010

8" Valve
9'2" East of Beginning of Curb
7' North of East End of Wheelchair Ramp

N: 4,960.0000, E: 6,189.6006
WL 1, Sta. 22+61.61
1– 16" x 8" Tee
1– 8" Anchored Valve Assembly (S)
(MJ Gate Valve)
Top Valve Box El.= 1350.0
1– 8" Plug (S)

N: 4,963.0000, E: 6,286.8326
WL 1, Sta. 23+58.92
1– Fire Hydrant Assembly
L= 4'
Top Valve Box El.= 1350.3
FH Bury Line El.= 1350.7
(Tee shall be Key Blocked)
1– 16" Anchored Valve Assembly (E)
(MJ Butterfly Valve)
Top Valve Box El.= 1350.1 (E)
30.00'– 16" Pipe (E)
1– 16" Cap (E)

Hydt. Valve
22" South of Hydt.

16" Valve
39" Southeast of Hydt. Valve

SCALE:
PLAN: LAT. & LONG. 0 40 80
PROFILE: HORIZ. SAME AS ABOVE
VERT. 0 5

N: 4,963.0000, E: 6,022.6668
WL 1, Sta. 20+94.60
Horizontal Deflection
Defl.= 3°00'00"

N: 4,960.0000, E: 6,079.9102
WL 1, Sta. 21+51.92
Horizontal Deflection
Defl.= 3°00'00"

N: 4,960.0000, E: 6,229.5892
WL 1, Sta. 23+01.60
Horizontal Deflection
Defl.= 3°00'00"

N: 4,963.0000, E: 5,688.8174
WL 1, Sta. 17+60.75
Fire Hydrant Assembly

NE Corner, NW 1/4, NW 1/4
Sec. 8, T27S, R3E
#5 Rebar

500.86'– 16" Pipe

97.31'– 16" Pipe

As-Built Record
by MLT, 7/13/2011

MICHAEL D. KELSEY
13944
8/19/10

Unless noted otherwise, elevations shown are top of pipe

WATERLINE NO. 1

PLAN
CHECKED
CHECKED
BY
DATE

PROFILE
CHECKED
CHECKED
BY
DATE

ANDOVER LANDING
WATER SUPPLY LINE

WATERLINE NO. 1

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed By MDK
Drawn By JAN
Job No. 35–10242–003–0161
Date MAY 2010

Sheet 6 of 11

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Plot Scale 1:40 08–18–2010 4:30:27 PM by JAN
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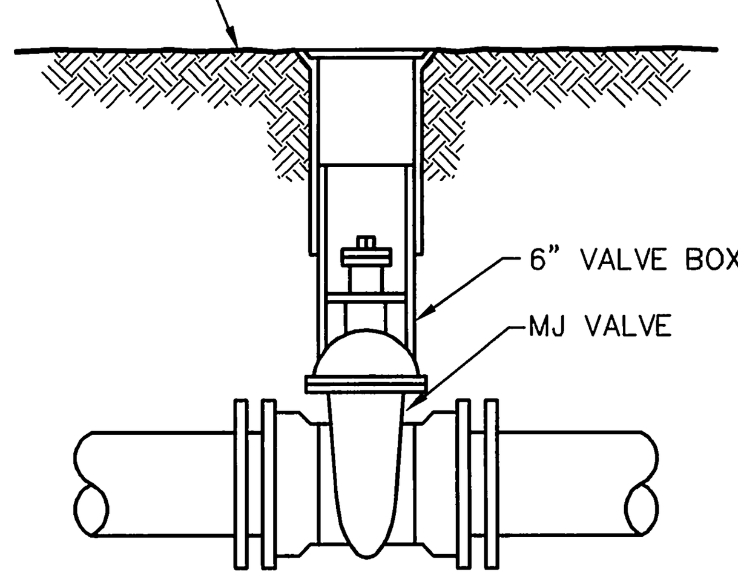
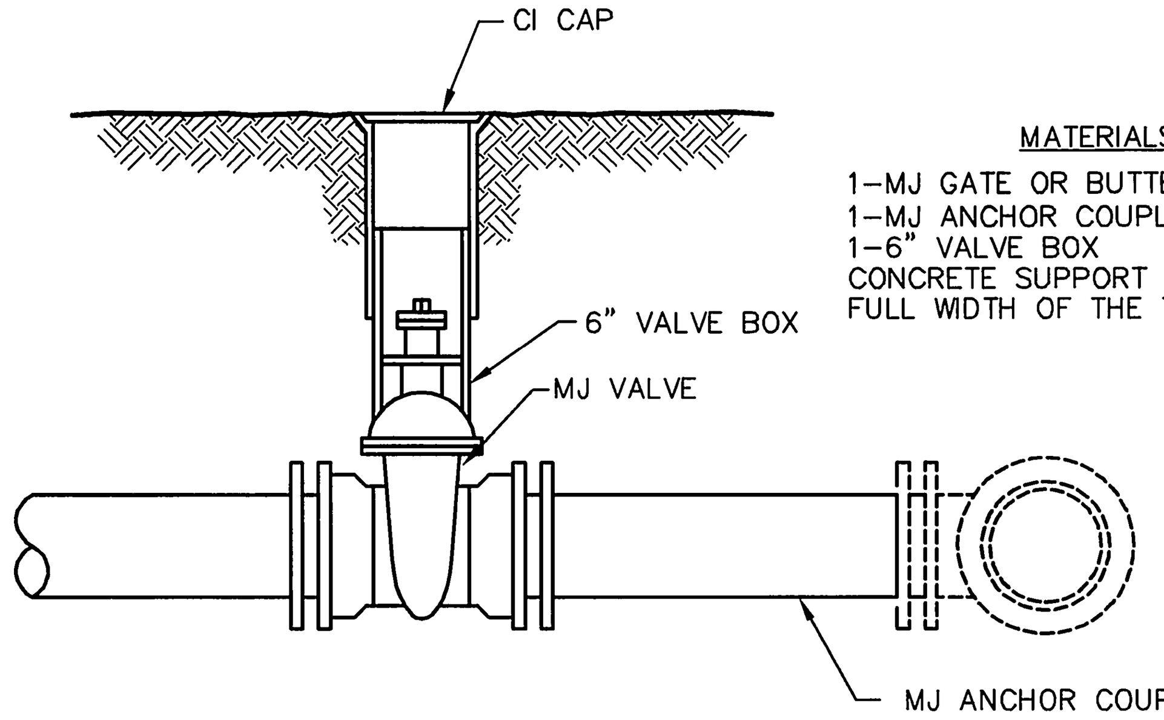


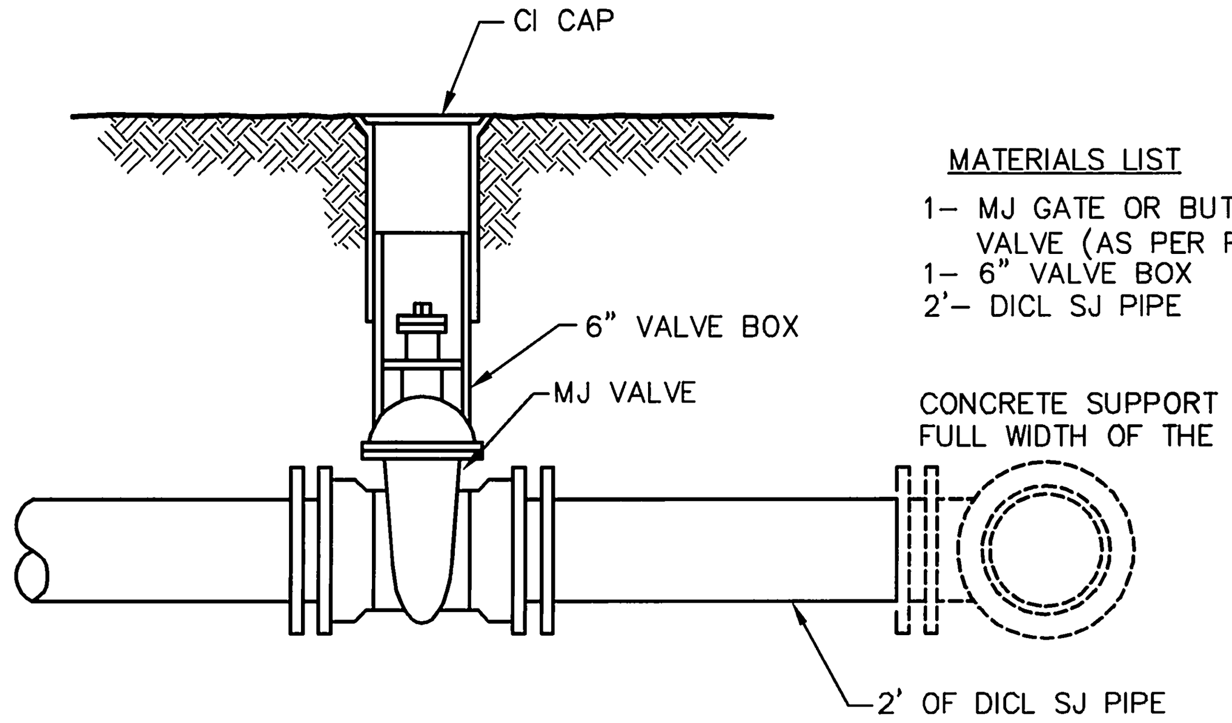
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

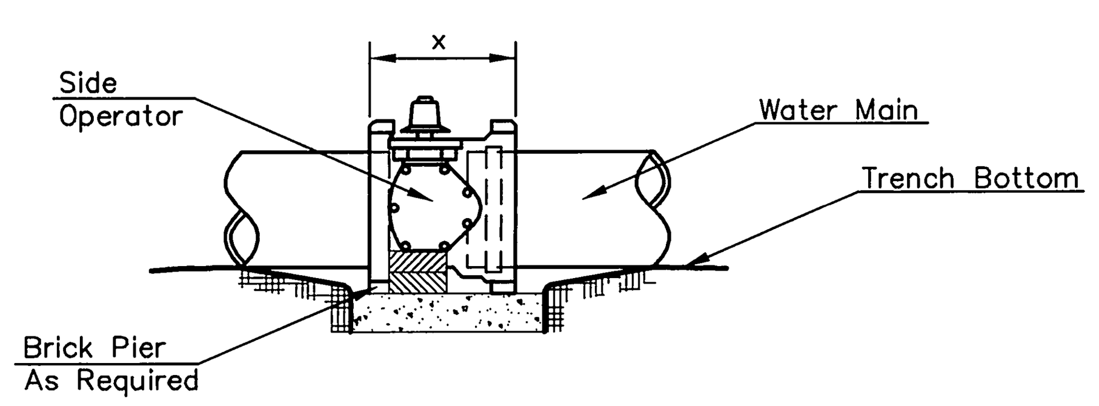
ANCHORED VALVE ASSEMBLY



MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

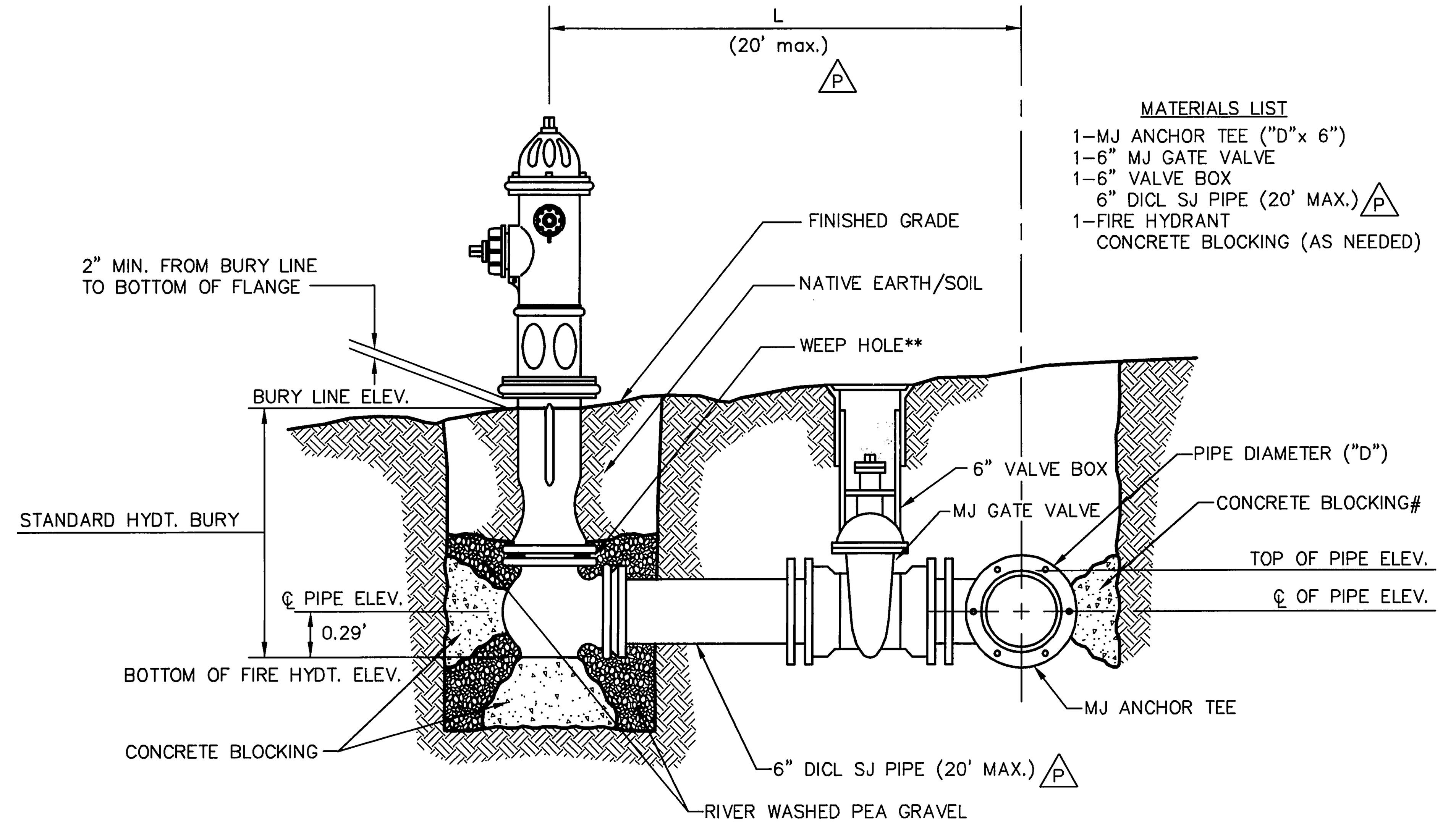
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



MATERIALS LIST
1-MJ ANCHOR TEE ("D"x 6")
1-6" MJ GATE VALVE
1-6" VALVE BOX
6" DICL SJ PIPE (20' MAX.) P
1-FIRE HYDRANT
CONCRETE BLOCKING (AS NEEDED)

** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE. C

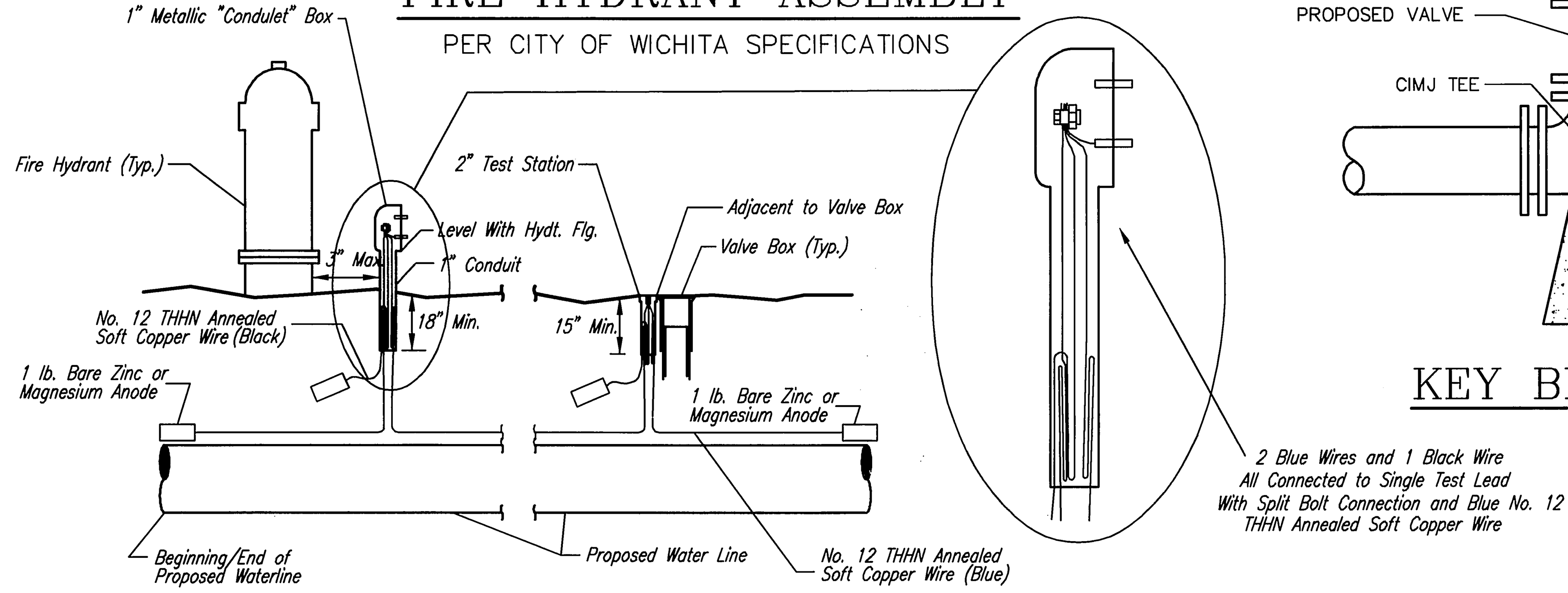
CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
Sta. 11+89.34	1340.8	1335.81	6.0'
Sta. 17+60.75	1342.2	1337.71	6.0'
Sta. 23+58.95	1350.7	1345.71	6.0'

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS



TRACER WIRE

Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

WIRE

The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS

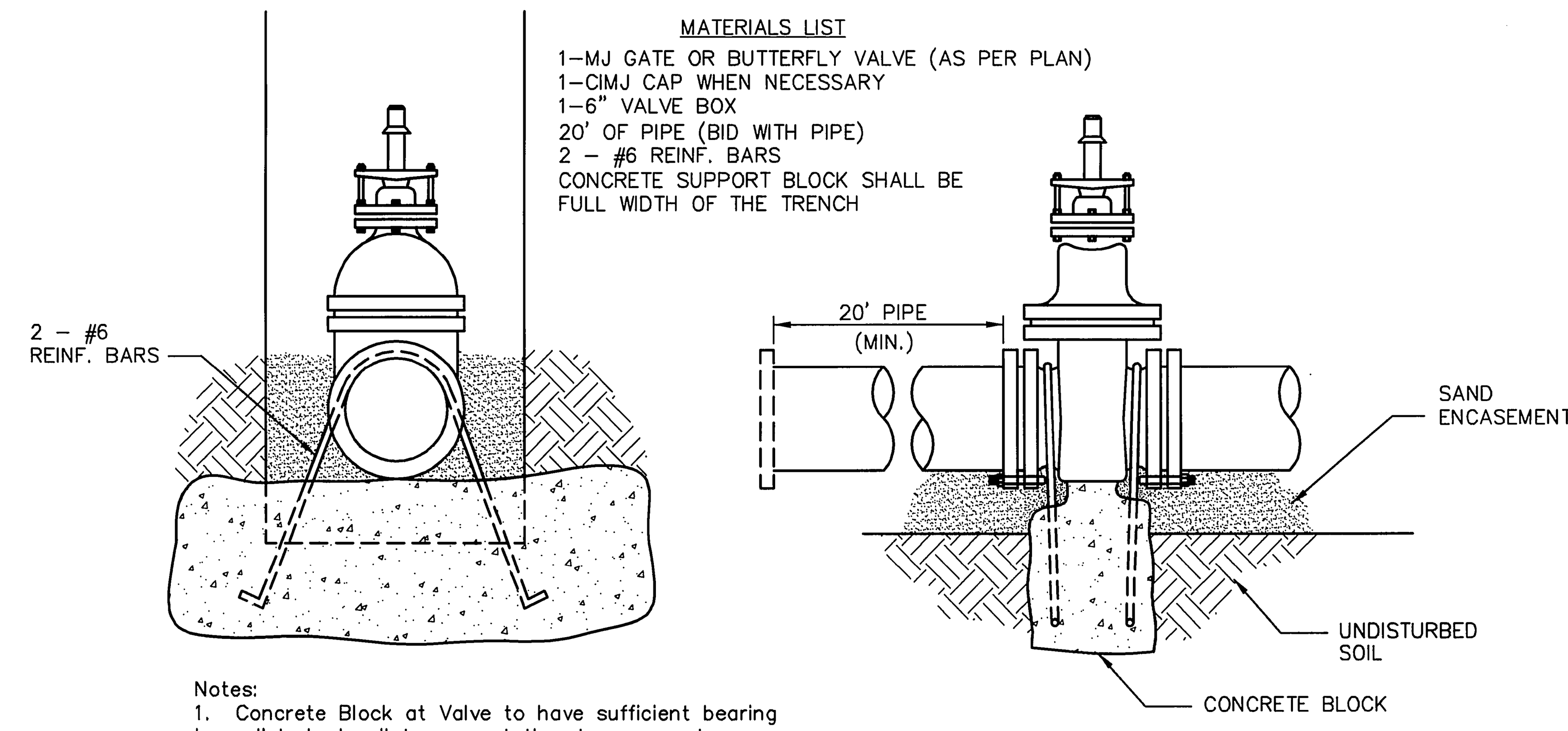
The test station for fire hydrant applications shall be a 1 inch galvanized "condulet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The "condulet" style test station shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

ANODES

The anodes shall be 1 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

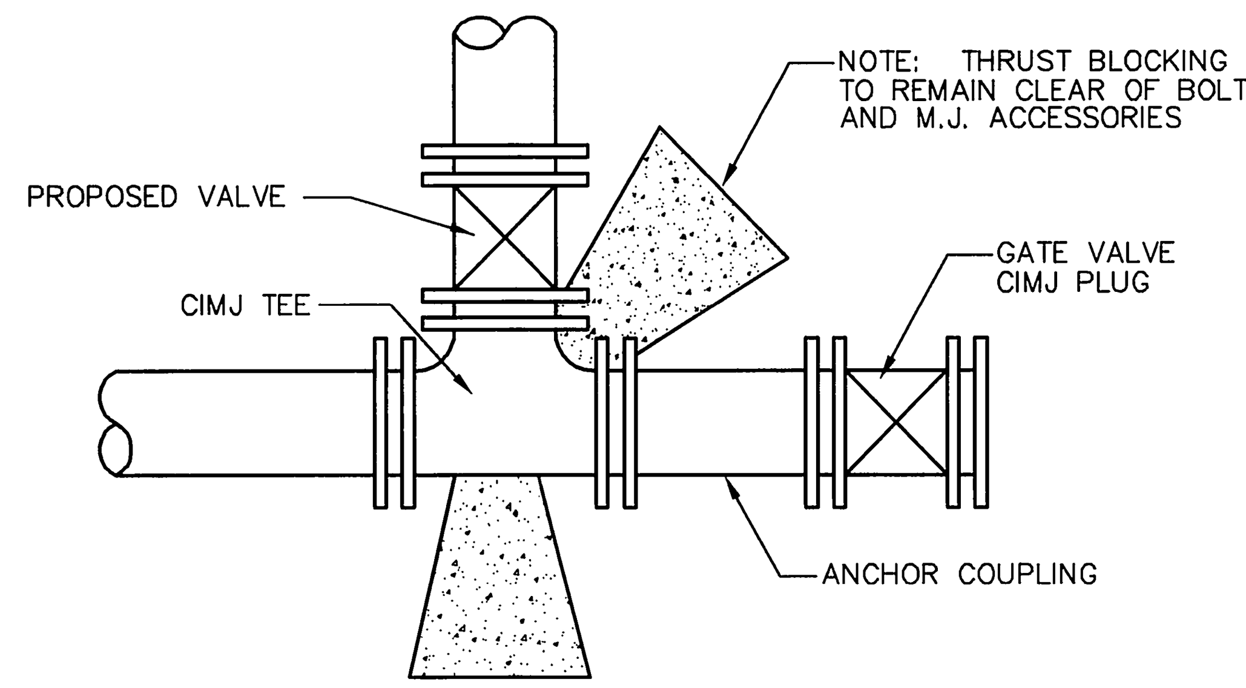
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.

2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.

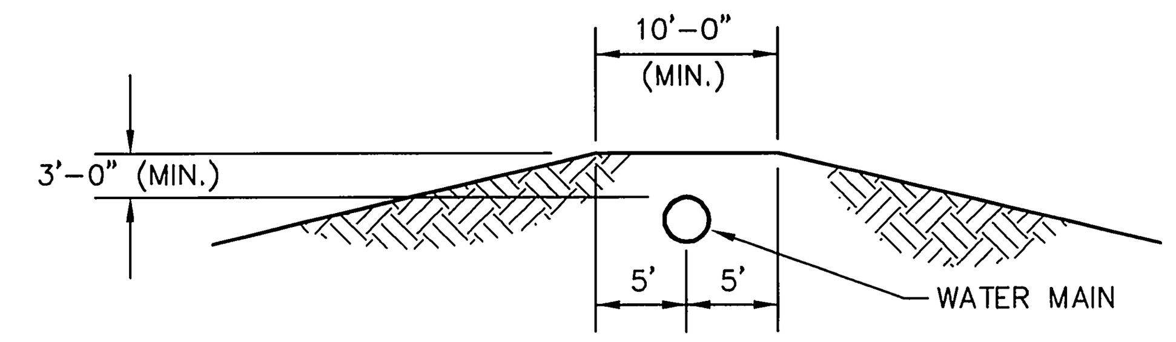
3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.
16"	30160 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

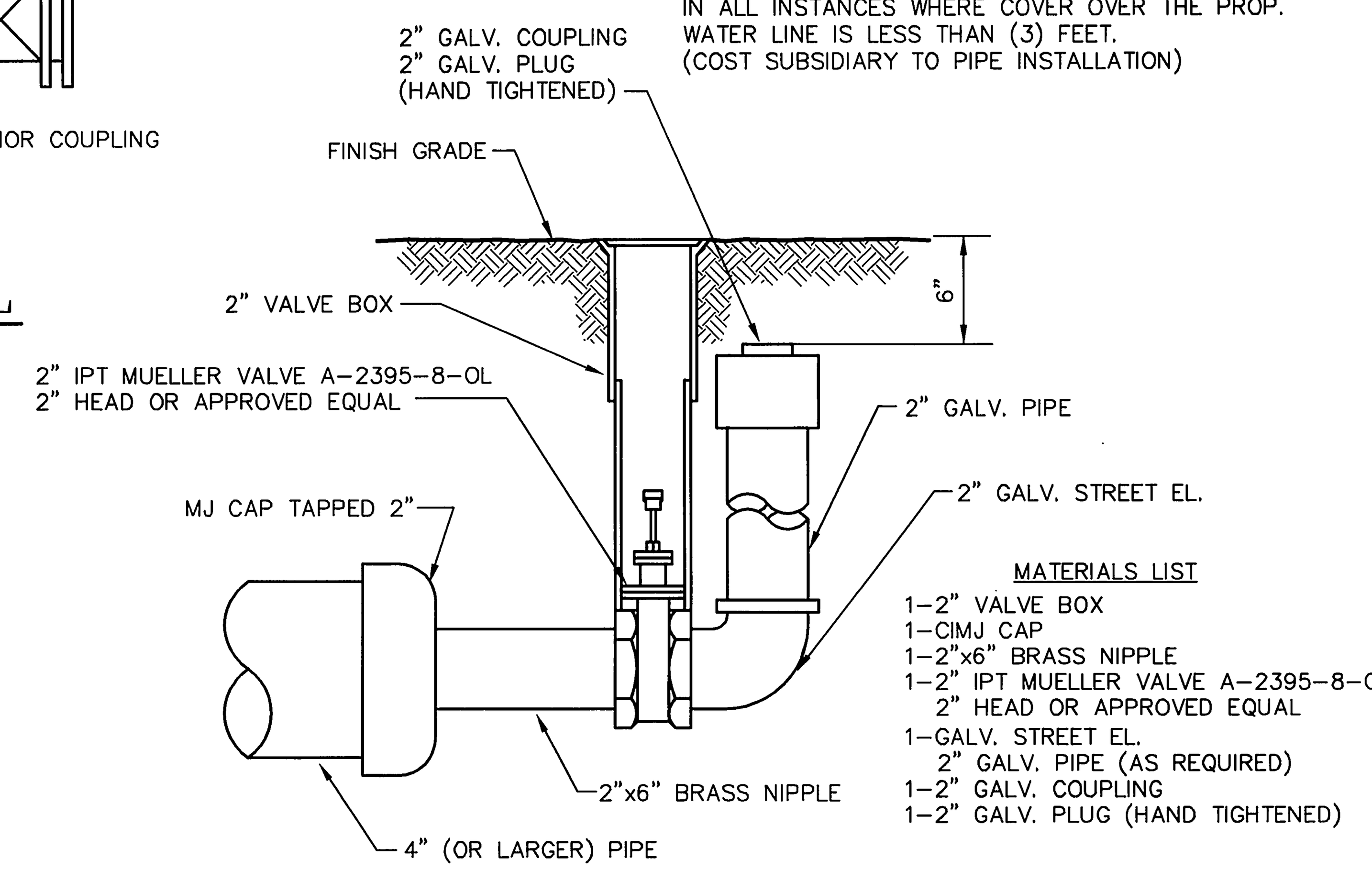


KEY BLOCK DETAIL



PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (3) FEET. (COST SUBSIDIARY TO PIPE INSTALLATION)



MATERIALS LIST
1-2" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT MUELLER VALVE A-2395-8-OL
2" HEAD OR APPROVED EQUAL
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY

As-Built Record
by MLT, 7/13/2011

C Revised: 01-07-05 per CITY
P Revised: 10-06-04 by PEC
Revised: 08-14-01, CITY
Revised: 11-13-00, MCG
Revised: 6-7-00, MCG

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

STANDARD WATER ASSEMBLY DETAILS

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

PROJECT NUMBER	OCA NO.
1549 PPW	(607853)

DATE DEC 98

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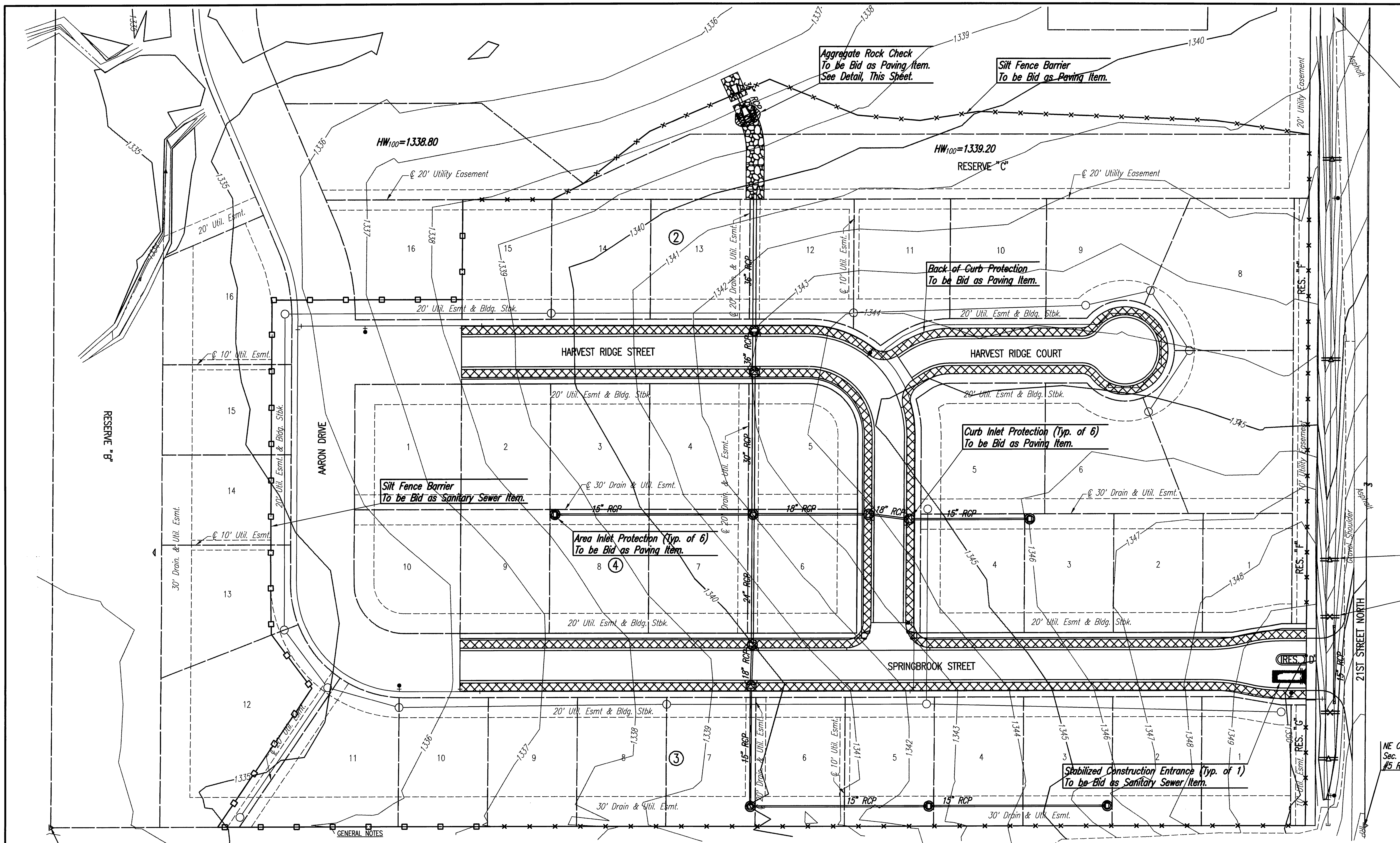
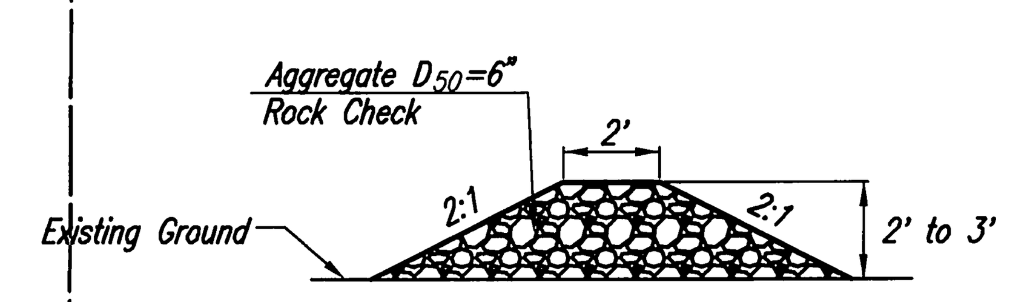
Plot Scale 1:1 08-18-2010 4:28:41 PM by JAN
Q:\2010\10242\003\10242-003-C-Std Water Assembly Details





AGGREGATE ROCK CHECK DETAIL
(TYPICAL SECTION)

NOTES

MATERIALS FOR AGGREGATE ROCK CHECK SHALL BE IN ACCORDANCE WITH SUBSECTION 1114 OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, 2007 EDITION.

GENERAL NOTES

1. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION PROTECTION THROUGHOUT THE ENTIRE PROJECT. THE FOLLOWING QUANTITIES ARE FOR INFORMATION ONLY, AND SHALL BE INCLUDED IN THE EROSION CONTROL LUMP SUM BID ITEMS FOR EACH RESPECTIVE PART. EROSION PROTECTION SHALL BE INCLUDED IN THE BID AS FOLLOWS:

SANITARY SEWER	
SILT FENCE BARRIER	1,135 L.F.
STABILIZED CONSTRUCTION ENTRANCE	1 EACH
WATER SUPPLY	
SILT FENCE BARRIER	245 L.F.
DITCH CHECKS	5 EACH
PAVING AND DRAINAGE	
CURB INLET PROTECTION	6 EACH
AREA INLET PROTECTION	6 EACH
DITCH CHECKS	2 EACH
AGGREGATE ROCK CHECK	1 EACH
BACK OF CURB PROTECTION	3,600 L.F.
SILT FENCE BARRIER	2,330 L.F.

2. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED MINIMUM STANDARDS. WHENEVER SEDIMENT ENTERS THE STREETS, STORM SEWERS, DITCHES, OR PONDS, CONTRACTOR WILL INSTALL ADDITIONAL DEVICES, AS NEEDED, TO CORRECT THE PROBLEM.

3. THE EROSION CONTROL DEVICES SHOWN HEREON MUST BE IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL SUCH TIME AS THE SITE IS REESTABLISHED WITH PAVING OR GRASS. TEMPORARY OR PERMANENT SEEDING AND MULCH WILL BE INSTALLED WHEN EARTHWORK ACTIVITIES CEASE IN AN AREA FOR 14 DAYS OR MORE.

4. ANY MUD INADVERTENTLY TRACKED ONTO ANY STREET SHALL BE CLEANED UP BY THE CONTRACTOR, AT THE END OF EACH DAY'S WORK, OR AS DIRECTED BY THE FIELD ENGINEER.

5. CONTRACTOR TO FURNISH A TRUCK WASH-OUT PIT TO BE PLACED AT A CONVENIENT LOCATION THAT DOES NOT CONFLICT WITH CONSTRUCTION. CONTRACTOR SHALL CLEAN OUT AND BACKFILL PIT PRIOR TO FINAL INSPECTION. LOCATION SHALL BE APPROVED BY THE FIELD ENGINEER.

6. SANITARY SEWER MAIN CONTRACTOR SHALL INSTALL SILT FENCE BARRIER AROUND THE PERIMETER OF THE ROCKWOOD FALLS ADDITION, IN THE LOCATIONS SHOWN ON THIS SHEET PRIOR TO CONSTRUCTION.

LEGEND

- SILT FENCE (TO BE BID WITH SANITARY SEWER PROJECT)
- SILT FENCE (TO BE BID WITH PAVING PROJECT)
- DITCH CHECKS (WATERLINE)
- DITCH CHECKS (PAVING)
- STABILIZED CONSTRUCTION ENTRANCE
- BACK OF CURB PROTECTION
- AGGREGATE ROCK CHECK
- W — PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER w/MANHOLE
- PROPOSED STORM WATER SEWER
- PROPOSED CURB INLET PROTECTION
- PROPOSED AREA INLET PROTECTION

As-Built Record
by MLT, 7/13/2011

MICHAEL D. KELSEY LICENSED 13944 8/19/10 KANSAS PROFESSIONAL ENGINEER

No.	Revision	By	Date

ANDOVER LANDING
WATER SUPPLY LINE

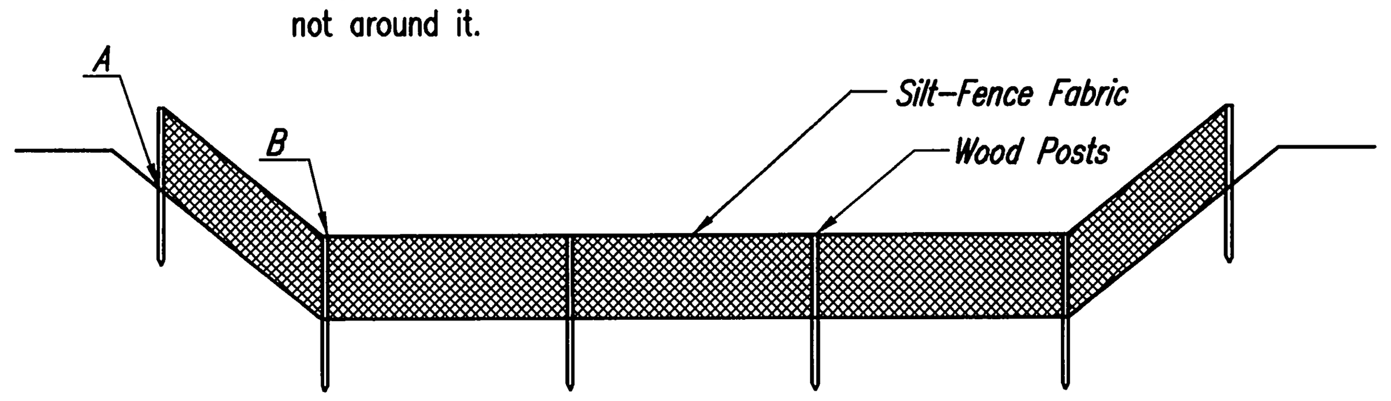
EROSION CONTROL PLAN

CITY OF WICHITA PRIVATE PROJECT NO. 1549 PPW (607853)
CITY OF WICHITA CITY ENGINEER – JAMES L. ARMOUR, P.E.

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

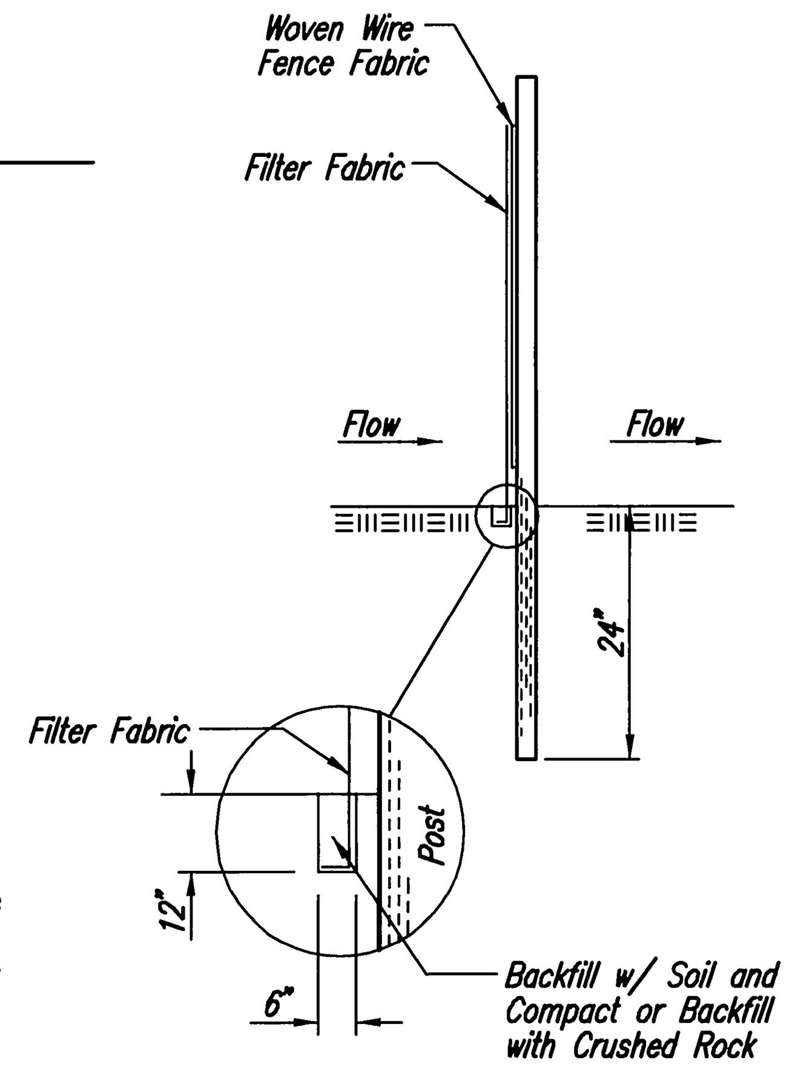
Designed by	MDK	Job No.	35-10242-03-161
Drawn by	JAN	Date	MAY 2010

NOTE: Point A must be higher than Point B so that water flows over the silt fence fabric and not around it.



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped.
Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped.
Silt fence ditch checks should be placed perpendicular to the flowline of the ditch.
The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check.
Silt fence ditch checks should not be placed in ditches where high flows are expected.
Rock checks should be used instead.
Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

Ditch Check Ditch grade (%)	Spacing Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide.
Extend the trench in a straight line along the entire length of the proposed ditch check.
Place the soil on the upstream side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downstream side of the trench.
Place the edge of the fabric in the trench starting at the top upstream edge of the trench.
Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

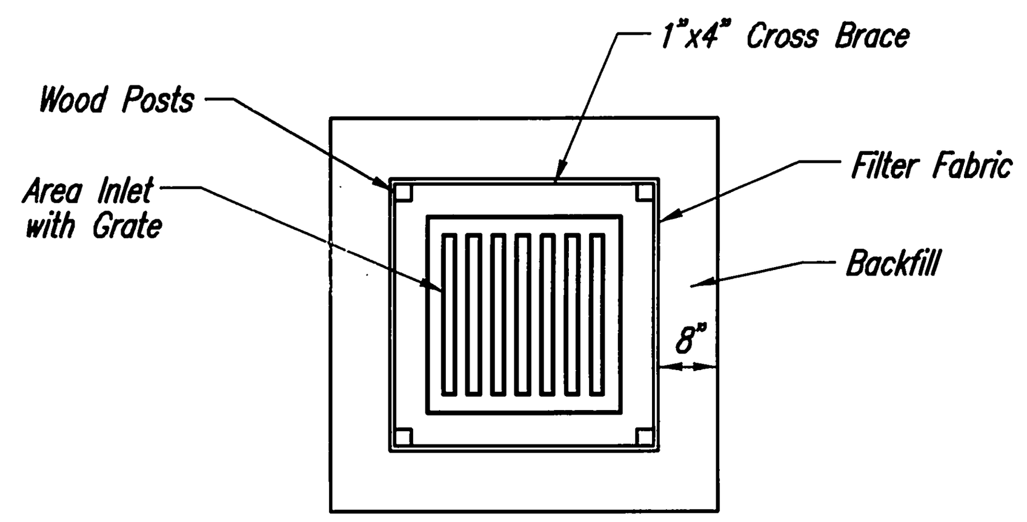
List of common placement/installation mistakes to avoid:

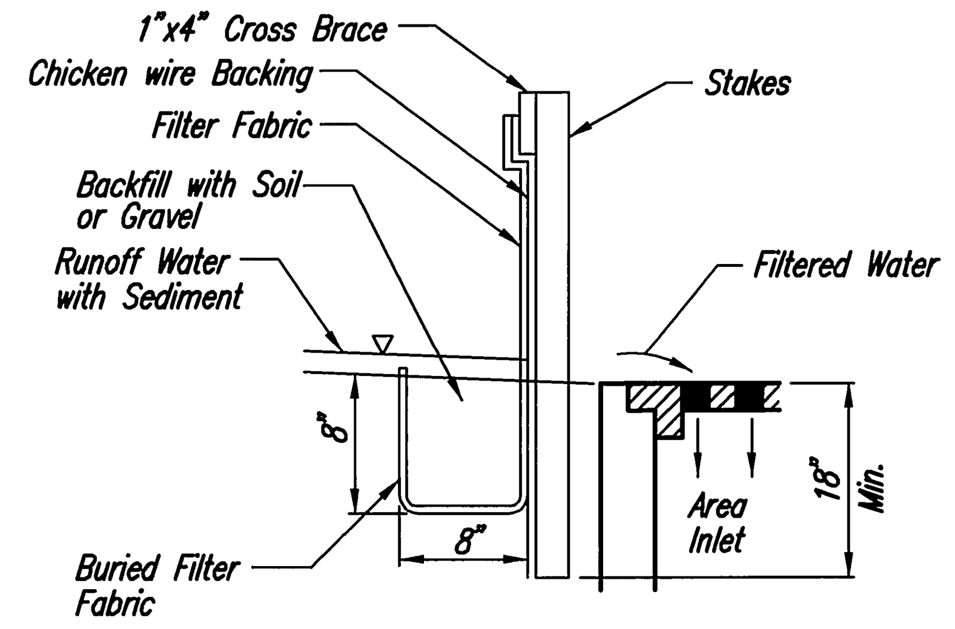
Water should flow through a silt fence ditch check–not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them.
Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place silt fence ditch checks in ditches that will likely experience high flows.
They will not stand up to concentrated flow.
Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence.
Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.

Inspection and Maintenance:

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

Does water flow around the ditch check?
Does water flow under the ditch check?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the ditch check?





SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The wire or polymeric mesh backing used to help support the silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
The material used to frame the tops of the posts should be 1" by 4" boards.
Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a silt fence drop inlet barrier in a location where it is unlikely to be overtopped.
Water should flow through silt fence, not over it. Silt fence barriers for area inlets often fail when repeatedly overtopped.
When used as a barrier for area inlets, silt fence fabric and posts must be supported at the top by a wooden frame.
When a silt fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide.
Drive posts to a depth of at least 18" around the perimeter of the area inlet.
The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between them.
Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening.
Attach the wire or polymeric-mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails.
Roll out a continuous length of silt fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Attach the silt fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

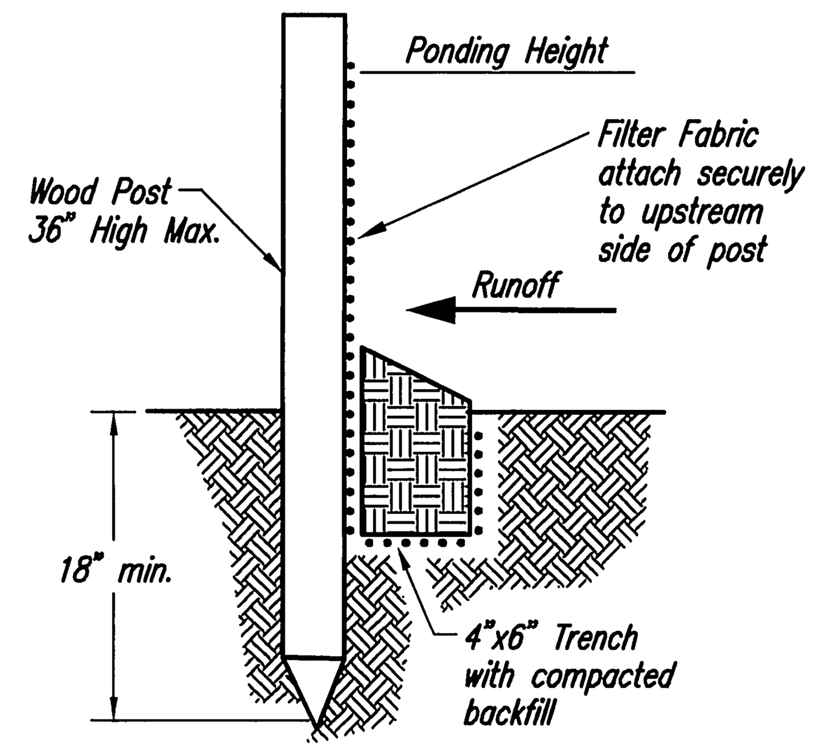
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for area inlet–not over it. Place a silt fence barrier for area inlet in a location where it is unlikely to be overtopped. Silt fence barrier for area inlets often fail when repeatedly overtopped.
Do not place posts on the outside of the silt fence barrier for area inlet. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not install silt fence barrier for area inlets without framing the top of the posts.
The corner posts around area inlets are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

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

Does water flow under the silt fence?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

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

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 6" deep by 4" wide.
Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downslope side of the trench.
Place the edge of the fabric in the trench starting at the top upslope edge. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt-fence fabric should remain exposed.
Lay the exposed silt fence upslope of the trench to clear an area for driving in the posts.
Just downslope of the trench, drive posts into the ground to a depth of at least 18".
Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates.
Do not place silt-fence posts on the upslope side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place silt fence slope barriers in areas with shallow soils underlain by rock. If the barrier is not sufficiently anchored, it will wash out.
Silt fence slope barriers must be dug into the ground–silt fence at ground level does not work because water will flow underneath.

Inspection and Maintenance:

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

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Do the silt fences sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the slope barrier?

As-Built Record
by MLT, 7/13/2011

CITY OF WICHITA

SOIL EROSION BMPs

SILT FENCE DITCH CHECK AND BARRIER DETAILS

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
1549 PPW	(607853)

DATE JAN. 2007

Saved 08-09-2010 4:45:48 PM by JAN
Plot Scale 1:1 08-18-2010 4:27:34 PM by JAN
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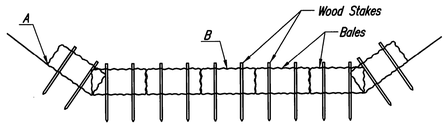
NOTE: Point A must be higher than Point B so that water flows over the bales and not around them.



STRAW BALE DITCH CHECKS

Material Specification:

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide.
Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

Placement:

Bale ditch checks should be placed perpendicular to the flowline of the ditch.
The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check.
Straw bale ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.
The following table provides check spacing for a given ditch grade:

Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is 4" deep and a bale's width wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench-it will be used later.
Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

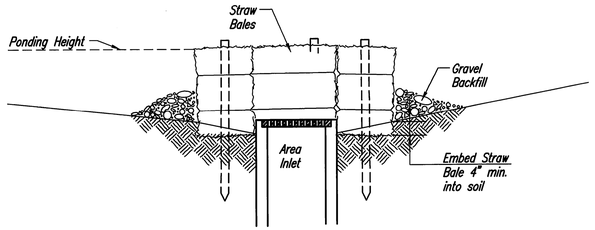
List of common placement/installation mistakes to avoid:

Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place bale ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch-check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the top of the lowest center bale.
Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.
Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

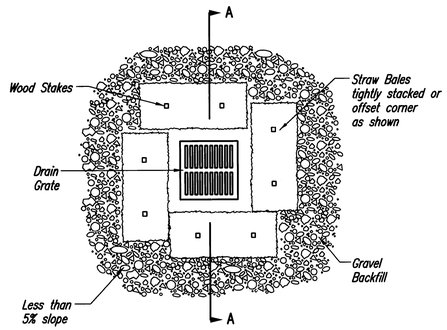
Inspection and Maintenance:

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

Does water flow around the ditch check?
Does water flow under the ditch check?
Does water flow through spaces between abutting bales?
Are any bales and/or scour aprons (optional) dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

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

Placement:

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

Proper Installation Method:

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

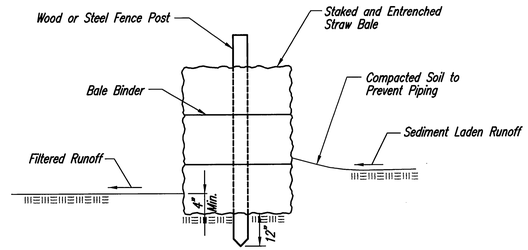
List of common placement installation mistakes to avoid:

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

Inspection and Maintenance:

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

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



STRAW BALE BARRIERS

Material Specification:

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

Placement:

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

Proper installation method:

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

List of common placement/installation mistakes to avoid:

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

Inspection and Maintenance:

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

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

As-Built Record
by MLT, 7/13/2011

CITY OF WICHITA

SOIL EROSION BMPs

STRAW BALE DITCH CHECK AND BARRIER DETAILS

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
1549 PPW	(607853)
DATE: JAN. 2007	SHEET 10 OF 11

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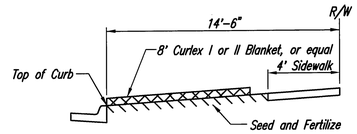
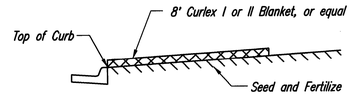
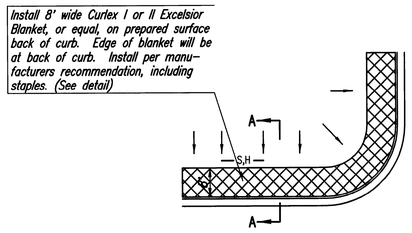


SECTION B-B



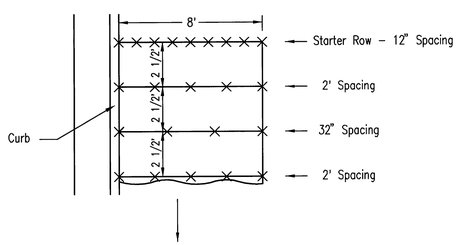
SECTION A-A



NOTES:

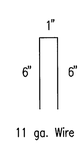
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE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

BACK OF CURB PROTECTION DETAIL



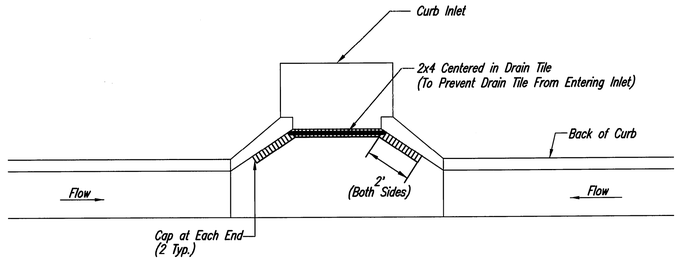
STAPLE PATTERN

NOTES: Use 6" seam overlap



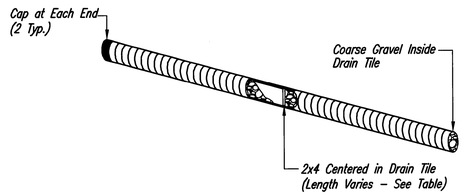
STAPLE

DETAILS FOR CURLEX I OR II BLANKETS

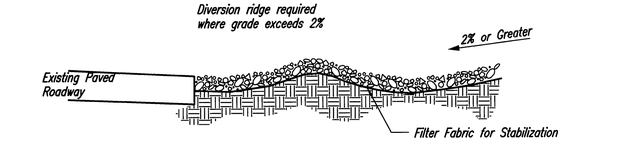


Note:
Place 4" perforated PVC pipe, filled with 1/2"-1" dia. gravel, in front of curb inlet as shown.

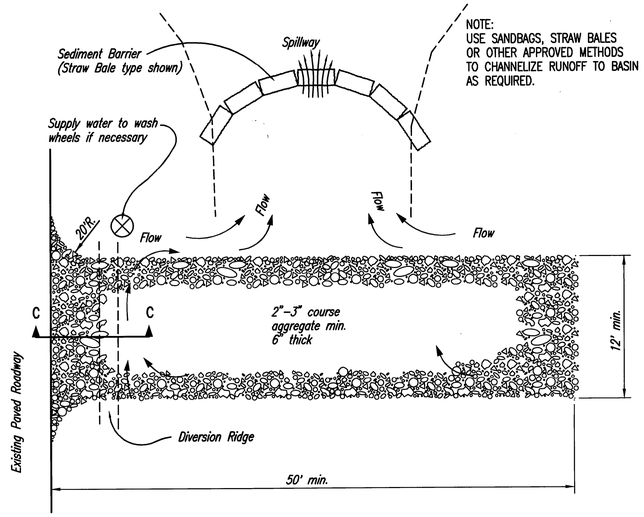
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

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.

As-Built Record
by MLT, 7/13/2011

CITY OF WICHITA

SOIL EROSION BMPs

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
1549 PPW	(607853)
DATE	SHEET 11 OF 11
JAN. 2007	

Saved 08-09-2010 4:45:17 PM by JAN
Plot Scale 1:1 08-18-2010 4:28:18 PM by JAN
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