

GENERAL NOTES

- ALL ELEVATIONS SHOWN ARE BASED ON MEAN SEA LEVEL DATUM (NGVD 29).
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS (EXCLUDING WEEKENDS AND HOLIDAYS) TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL 1-800-344-7233 OR 687-2470 (LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

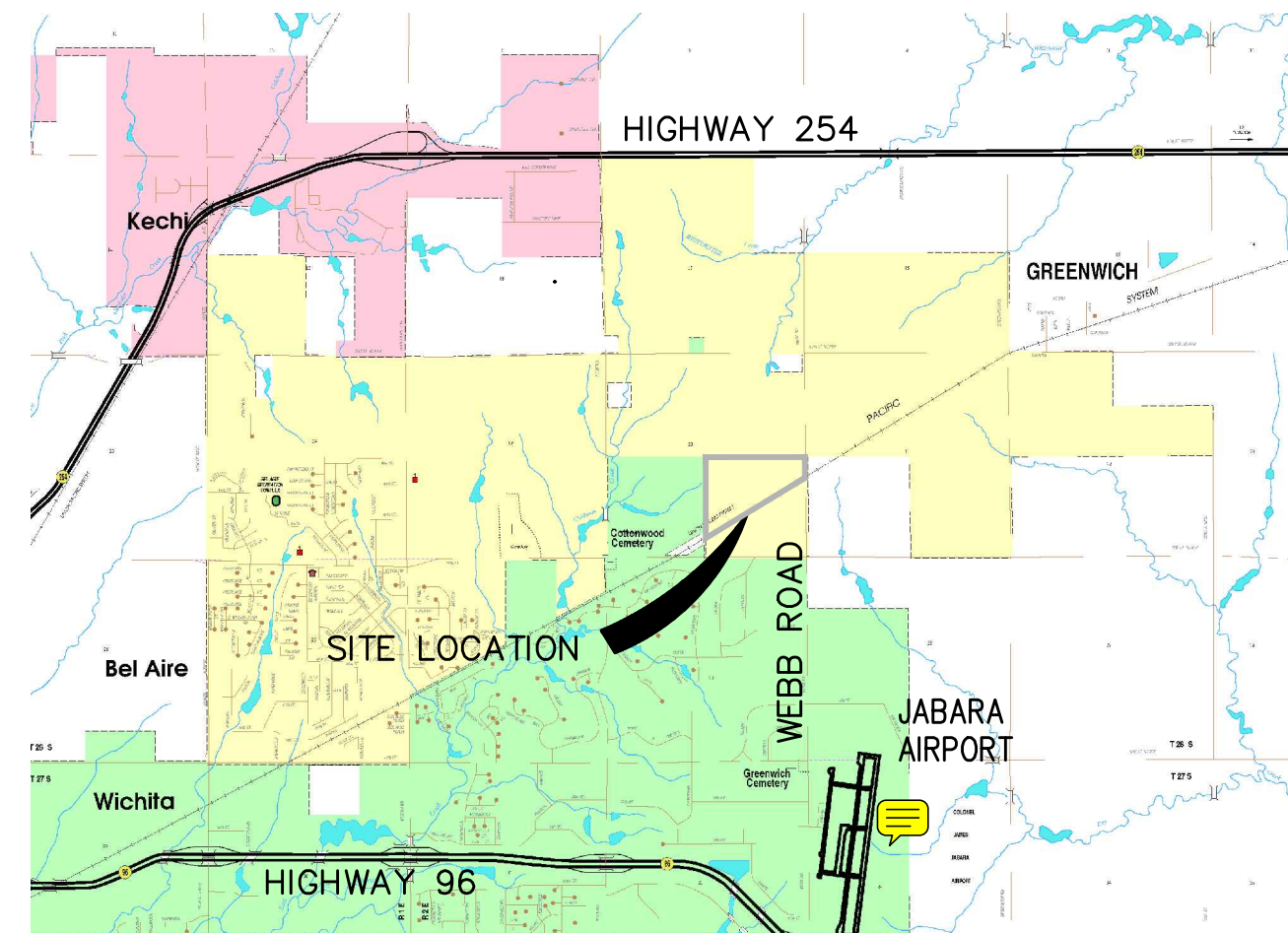
COX COMMUNICATIONS 316-858-1729
 AT&T 1-800-464-7928
 KANSAS GAS SERVICE 1-800-794-4780
 WESTAR ENERGY 1-800-383-1183
 BLACK HILLS ENERGY 1-800-303-0752
 CITY OF WICHITA(WATER & SEWER) 316-268-4555

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

- COST OF EXCAVATION, HAULING AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO OTHER ITEMS OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE INSPECTOR FOR THIS PROJECT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT ON SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
- 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 START OF CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
- INTERRUPTED TRAFFIC GENERATED OUTSIDE THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. 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.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, THAT IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOODPLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- PROPERTIES WITHIN THE PROJECT LIMITS MAY HAVE UNDERGROUND SPRINKLER SYSTEMS IN THE PUBLIC RIGHT-OF-WAY WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONNECTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED AS SUBSIDIARY TO THE CONTRACT PAY ITEMS OF WORK.
- ALL PROPOSED STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE.
- PRIOR TO LAYING THE NEW SEWER LINES THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF THE EXISTING SANITARY SEWER AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES FROM THE PLAN.
- THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE FOR THE WORK TO BE COMPLETED.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION AVAILABLE 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 PLAN LOCATIONS ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WHICH ARE ENCOUNTERED ON THIS PROJECT. 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.
- ALL PIPE JOINTS SHALL BE LAID AND PUSHED 'FULL HOME', WITH THE BEVELED END OF THE SPIGOT MAKING FULL CONTACT WITH THE CHAMFERED AREA AT THE THROAT OF THE BELL OR SOCKET, WITH NO SEPARATION BETWEEN THEM. IF SEPARATION IS DETERMINED, THE PIPE SHALL BE EXCAVATED AND RE-LAID ACCORDING TO SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

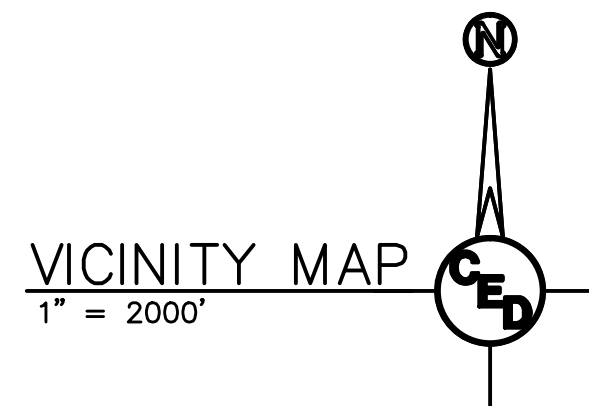
FIRE HYDRANT RELOCATION PRIVATE PROJECT PLANS TO SERVE

TIERRA VERDE SOUTH ADDITION,
 BEL AIRE, SEDGWICK COUNTY, KANSAS
 CITY OF WICHITA PRIVATE PROJECT NO.:
 1586 PPW (O.C.A. NO. 607853),
 JAMES L. ARMOUR, P.E. – CITY ENGINEER



Sheet Index	
No.	Sheet Title
1	Cover
2	Final Plat Sheet 1
3	Final Plat Sheet 2
4	Fire Hydrant Line Plan & Profile
5	Std. Water Assembly Details

THESE PLANS TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WICHITA STANDARDS AND SPECIFICATIONS & THE PRIVATE PROJECT PROCEDURE.



OWNER:
 TERRIE CRILLOT
 TIERRA VERDE DEVELOPMENT COMPANY, LLC
 500 N. MARKET STREET
 WICHITA, KS 67214

LEGAL DESCRIPTION:
 SE 1/4, S20-T26S-R2E
 TIERRA VERDE SOUTH ADDITION
 BEL AIRE, KANSAS

BENCHMARK "A"
 SET 'X' CUT @ NW CORNER OF CONCRETE
 BASE OF WEST RAILROAD CROSSING SIGNAL POLE.

ELEV = 1421.95 NGVD 29

APPROVED AS NOTED
 BY CITY ENGINEER OF WICHITA,
 WATER & SEWER DEPT. AND
 BY WICHITA FIRE DEPARTMENT

PUBLIC WORKS: *[Signature]* 4/7/11

WATER & SEWER: *[Signature]* 04/07/11

FIRE DEPARTMENT: *[Signature]* 04/11/2011

NOTE TO CONTRACTORS

PUBLIC PROPERTY:
 INSTALLATION, 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. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED WITHOUT THE 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).

PRIVATE PROPERTY:
 INSTALLATION, INSPECTION, AND TESTING FOR THE FIRE PROTECTION LINE IS TO BE PERFORMED BY A CITY OF WICHITA CERTIFIED FIRE PROTECTION CONTRACTOR IN ACCORDANCE WITH THE FIRE CODES AS ADOPTED BY THE CITY OF WICHITA. ALL MATERIALS AND CONSTRUCTION PRACTICES FOR THE FIRE PROTECTION LINE SHALL COMPLY WITH THE FIRE CODES AS ADOPTED BY THE CITY OF WICHITA (AVAILABLE FROM THE CITY OF WICHITA FIRE DEPARTMENT). THE CONTRACTOR SHALL NOT COMMENCE WORK WITHOUT NOTIFICATION TO AND APPROVAL OF THE WICHITA FIRE DEPARTMENT.

LEGEND

- FOUND IRON PIN
- SET IRON PIN
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING POWER POLE
- ⊙ PROPOSED POWER POLE
- ⊙ EXISTING TELEPHONE PEDESTAL
- ⊙ PROPOSED TELEPHONE PEDESTAL
- ⊙ EXISTING WATER VALVE
- ⊙ PROPOSED WATER VALVE
- ⊙ EXISTING FIRE HYDRANT ASSEMBLY
- ⊙ PROPOSED FIRE HYDRANT ASSEMBLY
- ⊙ EXISTING WATER METER
- ⊙ PROPOSED WATER METER
- ⊙ EXISTING MANHOLE
- ⊙ PROPOSED MANHOLE
- ⊙ EXISTING GAS METER
- ⊙ PROPOSED GAS METER
- ⊙ EXISTING GRATED INLET
- ⊙ PROPOSED GRATED INLET
- ⊙ EXISTING DROP INLET
- ⊙ PROPOSED DROP INLET
- ⊙ PROPOSED STORM SEWER INLET STRUCTURE NUMBER
- ===== EXISTING CURB
- EXISTING INTERMEDIATE CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED INDEX CONTOUR
- ===== PROPOSED CURB
- ss EXISTING SANITARY SEWER LINE (SPECIFY SIZE & TYPE)
- ss PROPOSED SANITARY SEWER LINE
- gas EXISTING GAS LINE
- gas PROPOSED GAS LINE
- W-W EXISTING WATER LINE (SPECIFY SIZE & TYPE)
- W-W PROPOSED WATER LINE
- ugt EXISTING UNDERGROUND TELEPHONE
- ugt PROPOSED UNDERGROUND TELEPHONE
- uge EXISTING UNDERGROUND ELECTRIC
- uge PROPOSED UNDERGROUND ELECTRIC
- WESTAR OHE EXISTING OVERHEAD ELECTRIC
- WESTAR OHE PROPOSED OVERHEAD ELECTRIC
- ctv EXISTING UNDERGROUND TELEVISION
- ctv PROPOSED UNDERGROUND TELEVISION
- X-X- EXISTING WOOD FENCE
- X-X- PROPOSED WOOD FENCE
- PROPERTY LINE
- BUILDING SET BACK
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- DOWN GUY
- ===== EXISTING REINFORCED CONCRETE PIPE OR CORRUGATED METAL PIPE
- ===== NEW REINFORCED CONCRETE PIPE OR CORRUGATED METAL PIPE
- ⊙ EXISTING TREE
- ⊙ TREE TO BE REMOVED

REV.	DESCRIPTION	DATE

TIERRA VERDE
 SOUTH ADDITION, PH. 1
 N. WEBB RD
 BEL AIRE, KS 67220

CERTIFIED ENGINEERING DESIGN, P.A.
 CIVIL ENGINEERING

 1935 WEST MAPLE
 WICHITA, KANSAS 67213
 PH.(316)262-8808 FAX.(316)262-1669

ISSUED FOR PERMIT

PROJECT NO.: 20101295
 ISSUE DATE: 03/11/11
 CONTACT: C. WINKLER, H. FORAKER
 CHECKED BY:

COVER
 1 OF 5

ENGINEER'S NOTICE TO CONTRACTOR
 THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE DRAWINGS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE DRAWINGS AND WE ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THEIR DEPICTED LOCATION ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN, AND ALL OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS BY VERIFICATION OF THEIR LOCATION IN THE FIELD PRIOR TO THE INITIATION OF THE ACTUAL PORTION OF THEIR WORK.

SAFETY NOTICE TO CONTRACTOR
 IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, OR NEAR THE CONSTRUCTION SITE.

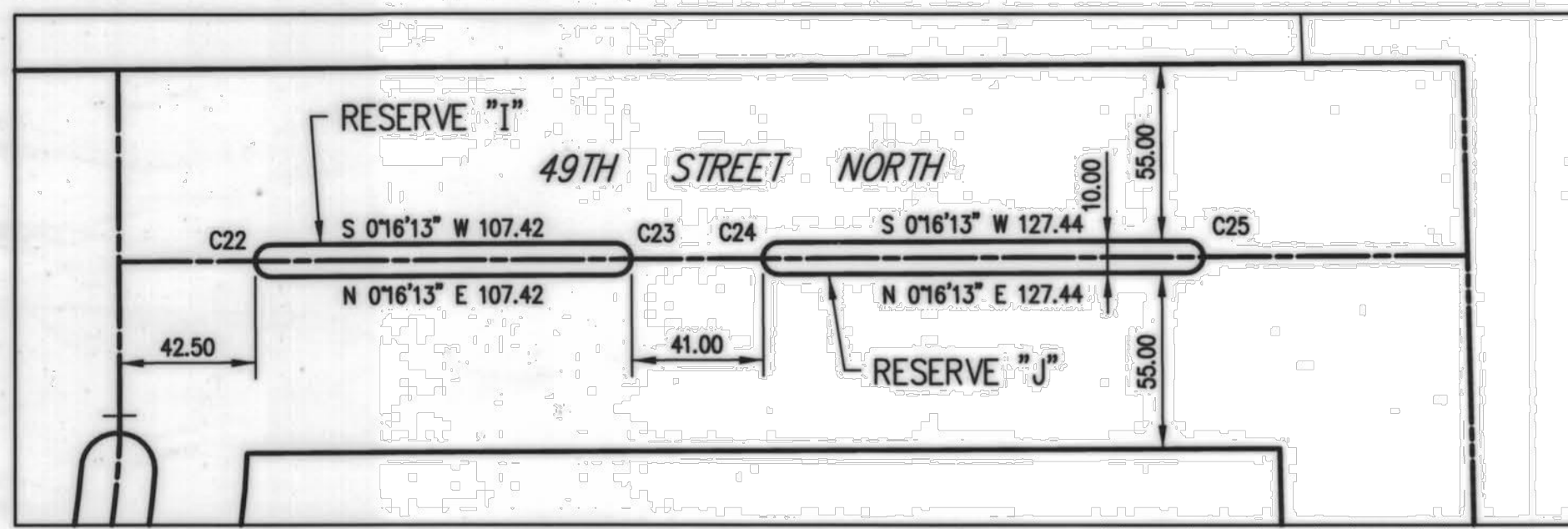
As-built Plans
 Contractor: WB Carter Construction Co.
 Inspector ARV Schwab-Eaton pdf by: CR 2-20-2012
 Project was completed according to these plans with markups noting all changes
 August 5, 2011

FILE LOCATION: S:\Drawing\Files\Project\Draw\11-11-10\Terra Verde\Jung\N\H_PP.dwg TAB NAME: Cover USER: rdmmurshat SAVED: 4/29/2011 8:59 AM PLOTTED: 7/12/2011 3:59 PM

FINAL PLAT

TIERRA VERDE SOUTH ADDITION

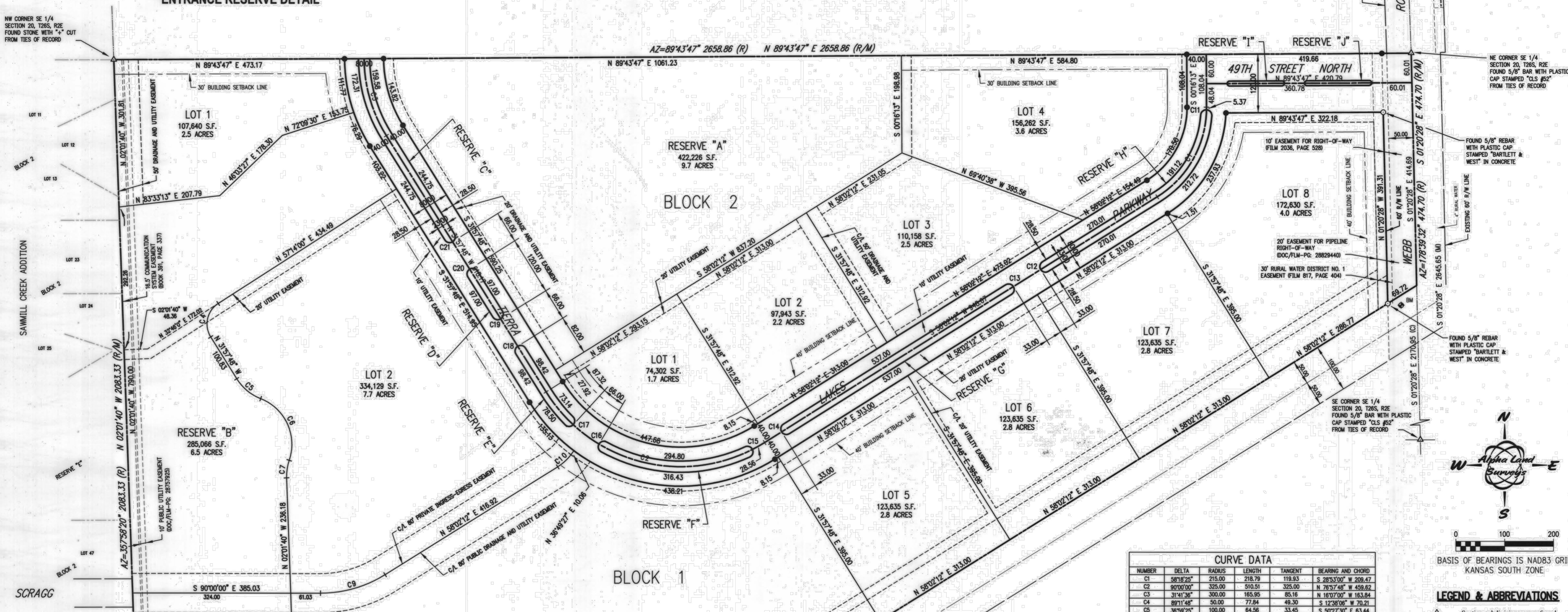
A PLANNED UNIT DEVELOPMENT IN THE
CITY OF BEL AIRE, SEDGWICK COUNTY, KANSAS
PAGE 1 OF 2



ENTRANCE RESERVE DETAIL

NW CORNER SE 1/4 SECTION 20, T26S, R2E FOUND STONE WITH "+" CUT FROM TIES OF RECORD

NE CORNER SE 1/4 SECTION 20, T26S, R2E FOUND 5/8" BAR WITH PLASTIC CAP STAMPED "CLS #52" FROM TIES OF RECORD



RESERVE NOTES:

RESERVES A AND B ARE PLATTED FOR A LAKE, DRAINAGE, SIDEWALKS, MONUMENTS, LANDSCAPING, IRRIGATION, OPEN SPACE AND BERMING.
RESERVES C, D, E, F, G, H, I AND J ARE PLATTED FOR MONUMENTS, LANDSCAPING, IRRIGATION AND OPEN SPACE.

THE RESERVES SHALL BE OWNED AND MAINTAINED BY THE LOT OWNERS OR HOME OWNER'S ASSOCIATION.

THE STREETS ARE HEREBY DEDICATED TO AND FOR THE USE OF THE PUBLIC.

A DRAINAGE PLAN HAS BEEN DEVELOPED FOR THIS PLAT AND ALL DRAINAGE EASEMENTS, RIGHT-OF-WAY AND RESERVES SHALL REMAIN AT ESTABLISHED GRADES OR AS MODIFIED WITH THE APPROVAL OF THE APPLICABLE CITY OR COUNTY ENGINEER AND UNOBSTRUCTED TO ALLOW FOR THE CONVEYANCE OF STORM WATER.

LEED DESIGN CRITERIA:

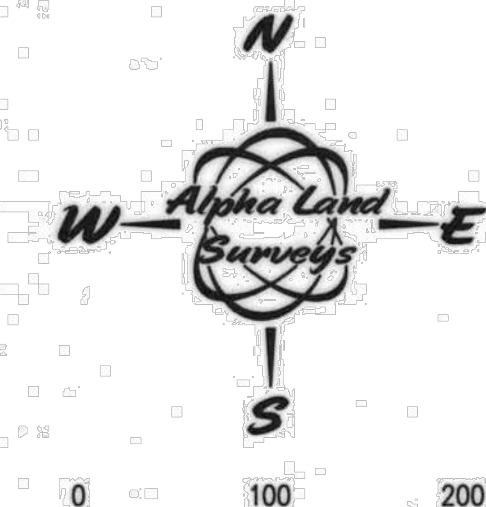
- IT IS THE INTENT OF THE DEVELOPER(S) FOR TIERRA VERDE DEVELOPMENT TO DESIGN A SUSTAINABLE PROJECT USING DESIGN CRITERIA FROM THE MOST CURRENT VERSION OF THE LEED ND (NEIGHBORHOOD DEVELOPMENT) RATING SYSTEM. ALL PROPOSED INDIVIDUAL SITE DESIGNS SHALL BE REVIEWED AND APPROVED BY THE DEVELOPER'S LEED REVIEW TEAM TO ENSURE SITE PROJECTS CONFORM TO THE LEED ND DESIGN PRINCIPLES. THE FOLLOWING LEED ND DESIGN ITEMS SHALL BE APPLIED TO ALL DEVELOPMENT WITHIN THE PUD.
 - THE POSTED SPEED LIMIT FOR RESIDENTIAL AREAS WITHIN THE DEVELOPMENT SHALL BE A MAXIMUM OF 20 MPH.
 - THE POSTED SPEED LIMIT FOR ALL NON-RESIDENTIAL AREAS OR MIXED USE AREAS SHALL BE 25 MPH.
 - MINIMUM 4' WIDE SIDEWALKS SHALL BE REQUIRED ON BOTH SIDES OF THE STREET RIGHT-OF-WAY WITH THE OUTSIDE EDGE OF THE SIDEWALK BEING PARALLEL TO AND ADJACENT TO THE RIGHT-OF-WAY LINE.
 - NO VEHICULAR PARKING IS ALLOWED WITHIN THE STREET RIGHT-OF-WAY.
 - ALL STREETS AND PEDESTRIAN SIDEWALKS OR OTHER PATHWAYS OF TRAVEL ARE AVAILABLE FOR GENERAL PUBLIC USE AND SHALL NOT BE GATED.

CLOSURE COMPUTATION:

N: 1718280.17 E: 1677935.82
LINE COURSE: AZ=89°43'47" LENGTH: 2658.86
N: 1718292.71 E: 1680594.65
LINE COURSE: AZ=178°39'32" LENGTH: 474.70
N: 1717818.14 E: 1680605.76
LINE COURSE: AZ=238°02'12" LENGTH: 3060.20
N: 1716198.15 E: 1678009.53
LINE COURSE: AZ=357°58'20" LENGTH: 2083.33
N: 1718280.17 E: 1677935.81

AREA: 77.901 ACRES 3,393,368 S.F.
PERIMETER: 8277.09
ERROR OF CLOSURE: 0.0100
ERROR OF CLOSURE COURSE: AZ=44°19'10"
ERROR NORTH: 0.0000 ERROR EAST: -0.0100
PRECISION 1 : 827826

NUMBER	DELTA	RADIUS	LENGTH	TANGENT	BEARING AND CHORD
C1	58°18'25"	215.00	218.79	119.93	S 28°53'00" W 209.47
C2	90°00'00"	325.00	510.51	325.00	N 76°57'48" W 459.62
C3	31°41'36"	300.00	165.95	85.16	N 16°07'00" W 163.84
C4	89°17'48"	50.00	77.84	49.30	S 12°38'06" E 70.21
C5	36°39'25"	100.00	64.56	33.45	S 30°27'30" E 53.44
C6	87°53'10"	100.00	153.39	96.38	S 25°00'30" E 138.79
C7	20°57'37"	100.00	36.58	18.50	S 06°27'09" W 36.38
C8	119°56'08"	225.00	470.99	399.21	S 61°59'44" E 399.59
C9	31°57'48"	250.00	139.47	71.60	N 74°01'06" E 137.66
C10	21°12'45"	100.00	37.02	18.73	N 47°25'49" E 36.81
C11	180°00'00"	11.50	36.13	INFINITE	S 85°46'28" E 23.00
C12	180°00'00"	11.50	36.13	INFINITE	S 31°57'48" E 23.00
C13	180°00'00"	11.50	36.13	INFINITE	S 31°57'48" E 23.00
C14	180°00'00"	11.50	36.13	INFINITE	S 31°57'48" E 23.00
C15	180°00'00"	11.50	36.13	INFINITE	S 24°54'00" E 23.00
C16	180°00'00"	11.50	36.13	INFINITE	S 28°58'43" E 23.00
C17	180°00'00"	11.50	36.13	INFINITE	S 44°40'11" W 23.00
C18	180°00'00"	11.50	36.13	INFINITE	S 58°02'12" W 23.00
C19	180°00'00"	11.50	36.13	INFINITE	S 58°02'12" W 23.00
C20	180°00'00"	11.50	36.13	INFINITE	S 58°02'12" W 23.00
C21	180°00'00"	11.50	36.13	INFINITE	S 58°02'12" W 23.00
C22	180°00'00"	5.00	15.71	INFINITE	S 00°16'13" E 10.00
C23	180°00'00"	5.00	15.71	INFINITE	S 00°16'13" E 10.00
C24	180°00'00"	5.00	15.71	INFINITE	S 00°16'13" E 10.00
C25	180°00'00"	5.00	15.71	INFINITE	S 00°16'13" E 10.00



BASIS OF BEARINGS IS NAD83 GRID KANSAS SOUTH ZONE

LEGEND & ABBREVIATIONS

- △ Section subdivision corner found
- Survey monument found
- Set 1/2"x24" rebar with cap stamped "ALPHA CLS-184"
- R. Record
- C. Calculated
- M. Measured
- R/W Right of Way
- AZ. Azimuth
- N. North
- S. South
- E. East
- W. West
- S.F. Square Feet
- ° Degrees
- ' Feet or Minutes
- " Inches or Seconds

Alpha Land Surveys, Inc.
ONE EAST NINTH AVENUE
HUTCHINSON, KANSAS 67501
PH: (620) 728-0012 FAX: (620) 728-0413

BENCHMARKS:

BM - CHISELED SQUARE IN THE NORTHWEST CORNER OF CONCRETE BASE OF THE WEST RAILROAD CROSSING SIGNAL POLE APPROXIMATELY 514.3 FEET SOUTH AND 32.9 FEET WEST OF THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 20, T26S, R2E.
ELEVATION=1421.96 (NAVD88)

SBM-1 - CHISELED '+' IN NORTH RIM OF SANITARY SEWER MANHOLE APPROXIMATELY 20.7 FEET NORTH AND 20.4 FEET EAST OF THE SOUTHWEST CORNER OF TIERRA VERDE SOUTH ADDITION.
ELEVATION=1398.21 (NAVD88)

SBM-2 - CHISELED '+' IN SOUTH RIM OF SANITARY SEWER MANHOLE APPROXIMATELY 61.4 FEET NORTH AND 24.8 FEET EAST OF THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF SECTION 20, T26S, R2E.
ELEVATION=1400.06 (NAVD88)

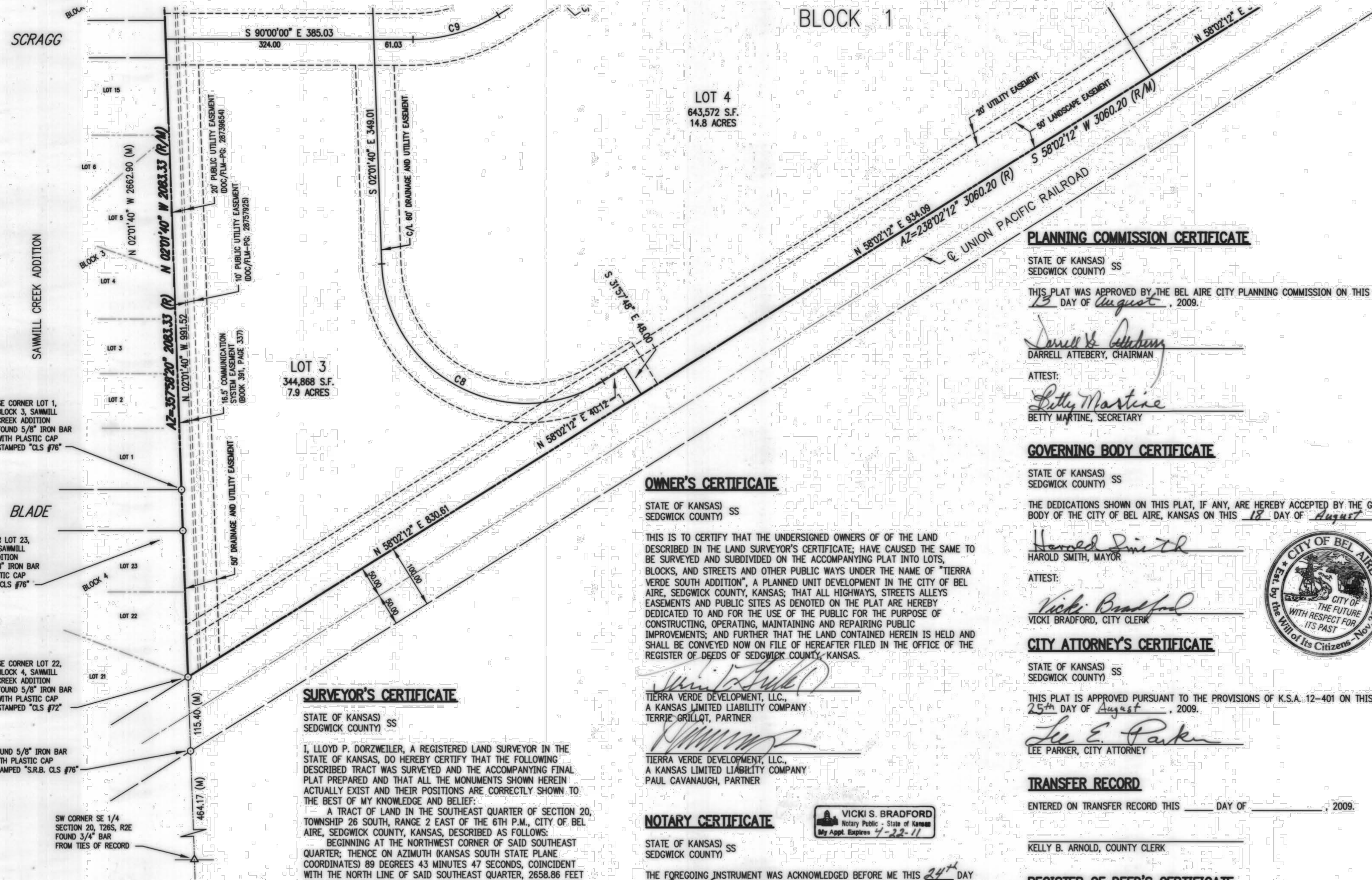
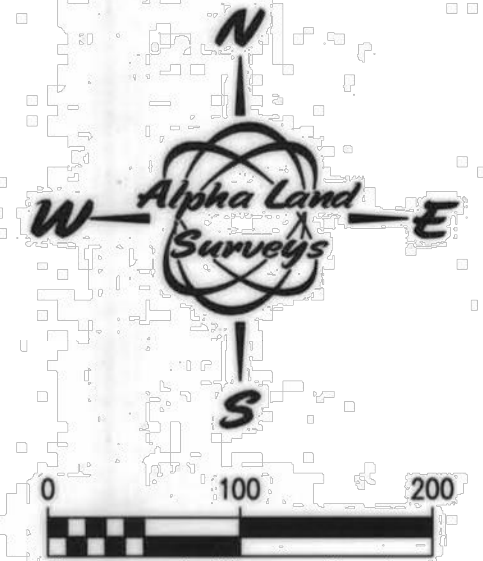
SBM-3 - CHISELED '+' IN EAST RIM OF SANITARY SEWER MANHOLE APPROXIMATELY 64.2 FEET NORTH AND 243.3 FEET WEST OF THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 20, T26S, R2E.
ELEVATION=1419.21 (NAVD88)

FINAL PLAT

TIERRA VERDE SOUTH ADDITION

A PLANNED UNIT DEVELOPMENT IN THE
CITY OF BEL AIRE, SEDGWICK COUNTY, KANSAS
SHEET 2 OF 2

BASIS OF BEARINGS IS NAD83 GRID
KANSAS SOUTH ZONE



LEGEND & ABBREVIATIONS

Δ	Section subdivision corner found	AZ.	Azimuth
○	Survey monument found	N.	North
●	Set 1/2"x24" rebar with cap stamped "ALPHA CLS-184"	S.	South
C.	Calculated	E.	East
R.	Record	W.	West
M.	Measured	S.F.	Square Feet
R/W	Right of Way	Degrees	Degrees
		"	Feet or Minutes
		"	Inches or Seconds

SURVEYOR'S CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

I, LLOYD P. DORZWEILER, A REGISTERED LAND SURVEYOR IN THE STATE OF KANSAS, DO HEREBY CERTIFY THAT THE FOLLOWING DESCRIBED TRACT WAS SURVEYED AND THE ACCOMPANYING FINAL PLAT PREPARED AND THAT ALL THE MONUMENTS SHOWN HEREIN ACTUALLY EXIST AND THEIR POSITIONS ARE CORRECTLY SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF:

A TRACT OF LAND IN THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 26 SOUTH, RANGE 2 EAST OF THE 6TH P.M., CITY OF BEL AIRE, SEDGWICK COUNTY, KANSAS, DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE ON AZIMUTH (KANSAS SOUTH STATE PLANE COORDINATES) 89 DEGREES 43 MINUTES 47 SECONDS, COINCIDENT WITH THE NORTH LINE OF SAID SOUTHEAST QUARTER, 2658.86 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE ON AZIMUTH 178 DEGREES 39 MINUTES 32 SECONDS, COINCIDENT WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, 474.70 FEET TO THE NORTHERLY LINE OF THE UNION PACIFIC RAILROAD; THENCE ON AZIMUTH 238 DEGREES 02 MINUTES 12 SECONDS, COINCIDENT WITH SAID NORTHERLY LINE, 3060.20 FEET TO THE SOUTHEAST CORNER OF LOT 22, BLOCK 4, OF SAWMILL CREEK ADDITION; THENCE ON AZIMUTH 357 DEGREES 58 MINUTES 20 SECONDS, COINCIDENT WITH THE EAST LINE OF SAWMILL CREEK ADDITION, 2083.33 FEET TO THE POINT OF BEGINNING.



OWNER'S CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

THIS IS TO CERTIFY THAT THE UNDERSIGNED OWNERS OF THE LAND DESCRIBED IN THE LAND SURVEYOR'S CERTIFICATE, HAVE CAUSED THE SAME TO BE SURVEYED AND SUBDIVIDED ON THE ACCOMPANYING PLAT INTO LOTS, BLOCKS, AND STREETS AND OTHER PUBLIC WAYS UNDER THE NAME OF "TIERRA VERDE SOUTH ADDITION", A PLANNED UNIT DEVELOPMENT IN THE CITY OF BEL AIRE, SEDGWICK COUNTY, KANSAS; THAT ALL HIGHWAYS, STREETS ALLEYS EASEMENTS AND PUBLIC SITES AS DENOTED ON THE PLAT ARE HEREBY DEDICATED TO AND FOR THE USE OF THE PUBLIC FOR THE PURPOSE OF CONSTRUCTING, OPERATING, MAINTAINING AND REPAIRING PUBLIC IMPROVEMENTS; AND FURTHER THAT THE LAND CONTAINED HEREIN IS HELD AND SHALL BE CONVEYED NOW ON FILE OF HEREAFTER FILED IN THE OFFICE OF THE REGISTER OF DEEDS OF SEDGWICK COUNTY, KANSAS.

TERRA VERDE DEVELOPMENT, LLC,
A KANSAS LIMITED LIABILITY COMPANY
TERRIE GRILLLOT, PARTNER

TERRA VERDE DEVELOPMENT, LLC,
A KANSAS LIMITED LIABILITY COMPANY
PAUL CAVANAUGH, PARTNER

NOTARY CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 24th DAY OF August, 2009, BY TERRIE GRILLLOT & PAUL CAVANAUGH, PARTNERS OF TIERRA VERDE DEVELOPMENT, A KANSAS LIMITED LIABILITY COMPANY.

Vicki S. Bradford NOTARY PUBLIC
MY APPT. EXPIRES 4-22-11

COUNTY SURVEYOR'S CERTIFICATE

REVIEWED IN ACCORDANCE WITH K.S.A. 58-2005 ON THIS 24th DAY OF August, 2009.

TRICIA L. REBELLO, DEPUTY COUNTY SURVEYOR
SEDGWICK COUNTY, KANSAS

PLANNING COMMISSION CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

THIS PLAT WAS APPROVED BY THE BEL AIRE CITY PLANNING COMMISSION ON THIS 13 DAY OF August, 2009.

Darrell Attebery
DARRELL ATTEBERY, CHAIRMAN

ATTEST:
Betty Martine
BETTY MARTINE, SECRETARY

GOVERNING BODY CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

THE DEDICATIONS SHOWN ON THIS PLAT, IF ANY, ARE HEREBY ACCEPTED BY THE GOVERNING BODY OF THE CITY OF BEL AIRE, KANSAS ON THIS 18 DAY OF August, 2009.

Harold Smith
HAROLD SMITH, MAYOR

ATTEST:
Vicki Bradford
VICKI BRADFORD, CITY CLERK



CITY ATTORNEY'S CERTIFICATE

STATE OF KANSAS) SS
SEDGWICK COUNTY)

THIS PLAT IS APPROVED PURSUANT TO THE PROVISIONS OF K.S.A. 12-401 ON THIS 25th DAY OF August, 2009.

Lee E. Parker
LEE PARKER, CITY ATTORNEY

TRANSFER RECORD

ENTERED ON TRANSFER RECORD THIS _____ DAY OF _____, 2009.

REGISTER OF DEED'S CERTIFICATE

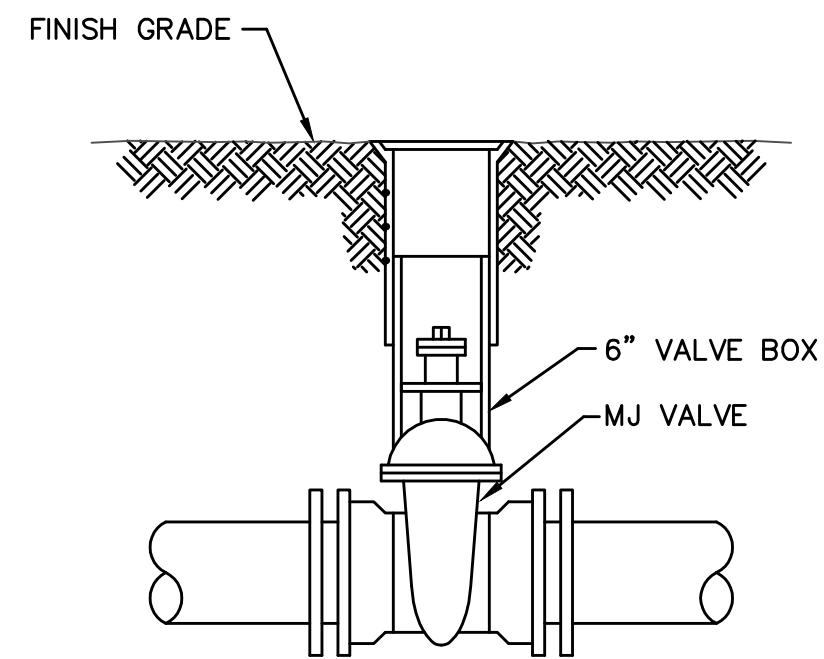
STATE OF KANSAS) SS
SEDGWICK COUNTY)

THIS IS TO CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN THE REGISTRAR OF DEEDS OFFICE AT _____ O'CLOCK _____ M ON THIS _____ DAY _____ OF _____, 2009 AND IS DULY RECORDED.

BILL MEER, REGISTER OF DEEDS
TONYA BUCKINGHAM, DEPUTY

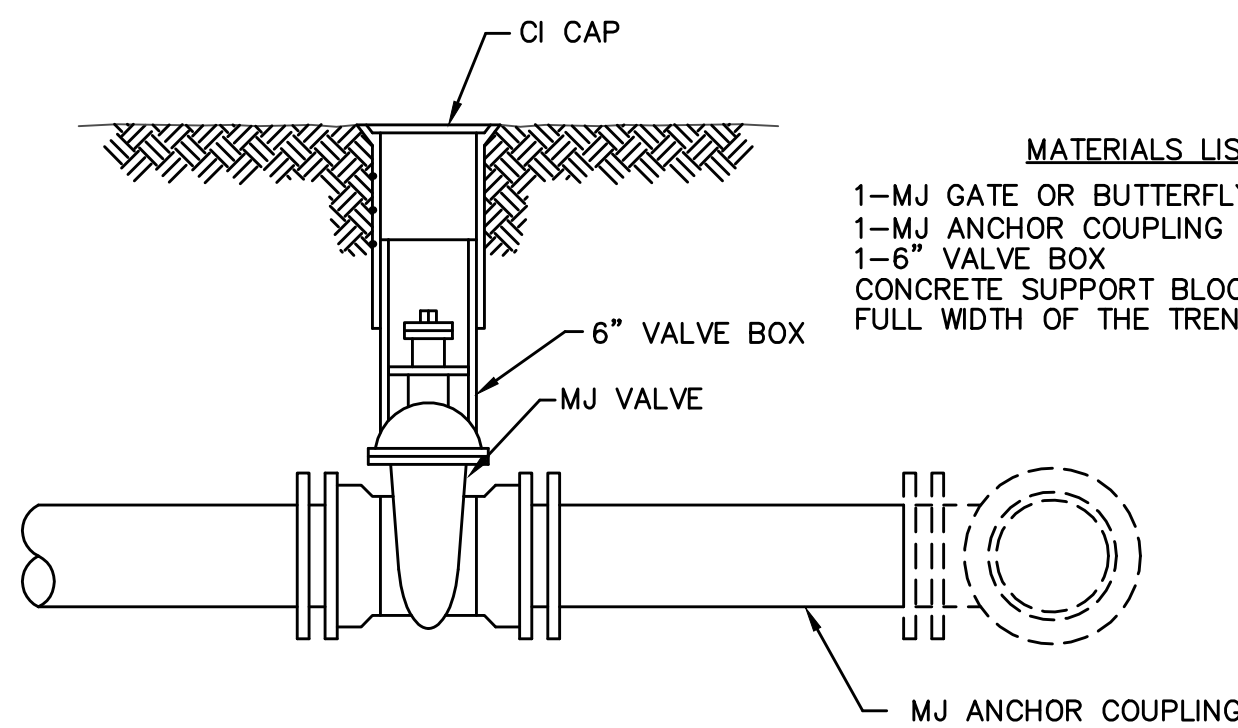
GENERAL PROVISIONS:

1. THIS AGREEMENT ESTABLISHES THE TERMS AND CONDITIONS FOR A PLANNED UNIT DEVELOPMENT ZONING DISTRICT. THE REQUIREMENTS CONTAINED IN THIS PUD ARE IN LIEU OF ANY REQUIREMENTS CONTAINED IN THE ZONING AND SUBDIVISION REGULATIONS OF THE CITY AND COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PUD AGREEMENT SHALL BE DEEMED IN COMPLIANCE WITH THE CITY ZONING AND SUBDIVISION REGULATIONS OF THE CITY.
2. INSTALLATION OF ALL IMPROVEMENTS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL LEGISLATION, INCLUDING THE AMERICANS WITH DISABILITIES ACT. ALL INFRASTRUCTURE IMPROVEMENTS SHALL BE DETAILED ON A FINAL PLANNED UNIT DEVELOPMENT SITE PLAN, WHICH DELINEATES BUILDING LOCATIONS, AT THE TIME THE LOTS ARE DEVELOPED. SAID FINAL PLANNED UNIT DEVELOPMENT SITE PLAN HEREIN THE "FINAL PUD SITE PLAN" SHALL BE APPROVED BY THE DEVELOPER AND BY THE CITY ENGINEER, ATTACHED HERETO AND MADE A PART HEREOF, AT THE TIME THE LOT IS DEVELOPED.
3. ALL ELECTRIC POWER, PARKING LOT LIGHTS, CABLE, STREET LIGHTS AND TELEPHONE SERVICE SHALL BE INSTALLED UNDERGROUND. THE CITY SHALL APPROVE THE ENGINEERING DESIGN AND INSPECT ALL OF THE IMPROVEMENTS NECESSARY FOR THE DEVELOPMENT OF TIERRA VERDE SOUTH ADDITION. ALL PUBLIC IMPROVEMENTS SHALL BE DEDICATED TO AND OWNED AND MAINTAINED BY THE CITY AND SHALL BE INSTALLED ON CITY OWNED PROPERTY OR WITHIN RIGHT-OF-WAYS OR EASEMENTS.
4. THE DEVELOPER SHALL INSTALL ALL IMPROVEMENTS DELINEATED ON THE FINAL PUD SITE PLAN, SAID IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, STREETS, SIDEWALKS, WATER DISTRIBUTION SYSTEM, SANITARY SEWER SERVICE LINES, DETENTION PONDS, STORM WATER SEWER SYSTEM, DRIVEWAYS, LANDSCAPING, LIGHTING AND UTILITIES. THE DEVELOPER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY FROM ANY LIABILITY FROM DAMAGES THAT MAY OCCUR DURING CONSTRUCTION BY OR ON BEHALF OF THE DEVELOPER. THE DEVELOPER SHALL PAY ONE HUNDRED PERCENT (100%) OF THE COST OF ALL IMPROVEMENTS DELINEATED ON THE PUD SITE PLAN AT THE TIME EACH INDIVIDUAL LOT IS DEVELOPED.
5. WHENEVER EXISTING SANITARY OR STORM WATER SEWERS, WATER LINES, DRAINAGE CHANNELS, CULVERTS, UNDERGROUND ELECTRIC, COMMUNICATIONS, GAS LINES, PIPE LINES OR TRANSMISSION LINES ARE REQUIRED TO BE INSTALLED, LOWERED, ENCASED, OR RELOCATED DUE TO THE LOT SPLIT OR CONSTRUCTION IMPROVEMENTS REQUIRED, AND IN THE EVENT THAT IT WAS NOT KNOWN AT THE TIME OF THE LOT SPLIT APPROVAL, THE DEVELOPER OF THE CONSTRUCTION IMPROVEMENTS SHALL PAY ONE HUNDRED PERCENT (100%) OF THE COST OF THE IMPROVEMENTS. THE DEVELOPER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY FROM ANY LIABILITY FROM DAMAGES THAT MAY OCCUR DURING CONSTRUCTION.
6. ALL EASEMENTS RECORDED ON THE FACE OF THE FINAL PLAT OF TIERRA VERDE SOUTH ADDITION, AN ADDITION TO BEL AIRE, KANSAS SHALL REMAIN IN EFFECT PURSUANT TO THIS PLANNED UNIT DEVELOPMENT AGREEMENT. THE SURFACE OF SUCH EASEMENTS MAY BE USED BY THE OWNER(S) FOR DRIVEWAYS, PARKING AND LANDSCAPING, AS DELINEATED ON THE FINAL PUD SITE PLAN. SAID IMPROVEMENTS WILL BE APPROVED DURING THE CONSTRUCTION PLAN REVIEW PHASE FOR EACH BUILDING AND/OR LOT DEVELOPMENT. SAID IMPROVEMENTS ARE SUBJECT TO REMOVAL FOR ACCESS TO UTILITIES AT OWNER'S EXPENSE.
7. THE DEVELOPER SHALL PREPARE A LANDSCAPE AND STORM DRAINAGE PLAN, WHICH SHALL ADDRESS THE EFFECT OF CHANGES TO THE NATURAL ENVIRONMENT AND INCREASED DRAINAGE. SAID LANDSCAPE AND STORM DRAINAGE PLAN SHALL BE APPROVED BY THE CITY ENGINEER, ATTACHED HERETO, AND MADE A PART HEREOF AT THE TIME EACH INDIVIDUAL LOT IS DEVELOPED. AFTER APPROVAL BY THE DEVELOPER AND THE CITY ENGINEER OF SAID LANDSCAPE AND STORM DRAINAGE PLAN, THE DEVELOPER SHALL INSTALL, OR CAUSE TO BE INSTALLED, THE IMPROVEMENTS PURSUANT TO THE SAID PLAN.
8. THE DEVELOPER SHALL PREPARE A SIGNAGE PLAN THAT SHALL INCLUDE ALL FREE STANDING AND BUILDING SIGNAGE, WHICH SHALL BE APPROVED BY THE CITY ADMINISTRATOR, ATTACHED HERETO AND MADE A PART HEREOF AT THE TIME EACH INDIVIDUAL LOT IS DEVELOPED.
9. OUTDOOR LIGHTING SOURCES SHALL EXCEED CUTOFF LUMINARIES TO MINIMIZE LIGHT TRESPASS AND GLARE, AND SHALL BE MOUNTED AT A HEIGHT NOT EXCEEDING ONE-HALF THE DISTANCE FROM THE NEIGHBORING LOTS, UNLESS EVIDENCE IS PROVIDED TO THE SATISFACTION OF THE ZONING ADMINISTRATOR THAT THE LIGHT SOURCE WILL BE AIMED OR SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT VISIBLE FROM THE NEIGHBORING LOTS.
10. IF SCREENING EXISTS ON ANY SIDE OF A DEVELOPING PROPERTY LINE THAT MEETS OR EXCEEDS THE STANDARDS OF THE ZONING CODE, ADDITIONAL SCREENING SHALL NOT BE REQUIRED. HOWEVER, IF AT ANY TIME THE EXISTING SCREENING FAILS TO MEET THE REQUIREMENTS OF THE ZONING CODE, COMPLIANCE SHALL BE ATTAINED BY THE PROPERTY OWNERS OF THE LOT, IN THE PUD WHICH FAILS TO MEET THESE REQUIREMENTS.
11. THE DEVELOPER SHALL ENCLOSE OR CAUSE TO BE ENCLOSED ALL TRASH AND RECYCLING CONTAINERS AND SIMILAR EQUIPMENT AS SET FORTH IN THE FINAL PUD SITE PLAN AS APPROVED BY THE CITY ENGINEER AT THE TIME EACH INDIVIDUAL LOT IS DEVELOPED.
12. IN ACCORDANCE WITH THE APPROVED FINAL PUD SITE PLAN, THE CITY SHALL REQUEST INSTALLATION OF NECESSARY STREET LIGHTS BY DEVELOPER'S CONTRACTOR AND THE DEVELOPER SHALL INSTALL PARKING LOT, BUILDING LIGHTING AND SECURITY FIXTURES AS PROVIDED IN THE FINAL PUD SITE PLAN.
13. ANY REQUIRED SANITARY SEWER MAINS REQUIRED TO BE INSTALLED IN ADDITION TO THOSE MENTIONED IN #4, WILL BE THE DEVELOPER'S RESPONSIBILITY TO CONTRACT, ENGINEER AND SHALL BE INSTALLED PER CITY STANDARDS. SAID NEW IMPROVEMENTS SHALL BE DEDICATED BY THE DEVELOPER TO THE CITY UPON APPROVAL BY THE CITY ENGINEER. THE COST OF ANY REQUIRED SANITARY SEWER MAINS SHALL BE PAID TO THE CITY AT THE TIME THE PERMIT IS APPROVED.
14. DEVELOPER SHALL CONSTRUCT A WATER SERVICE LINE TO EACH LOT. THE LOCATION OF SUCH TAP SHALL BE SHOWN ON THE FINAL PUD SITE PLAN AS APPROVED BY THE CITY ENGINEER.
15. NO DEMOLITION, SITE CLEARANCE OR CONSTRUCTION SHALL COMMENCE ON ANY PORTION OF THE TRACT OF LAND HEREIN REFERRED TO AS TIERRA VERDE SOUTH ADDITION, WITHOUT THE DEVELOPER, OR ITS DESIGNATED BUILDER, HAVING FIRST OBTAINED THE PROPER PERMITS FOR THE CITY. NO OCCUPANCY WILL BE ALLOWED OF ANY BUILDING ON SAID PROPERTY WITHOUT A VALID OCCUPANCY PERMIT FROM THE CITY.
16. A SPECIFIC PURPOSE OF THIS AGREEMENT IS TO ASSURE THAT NECESSARY IMPROVEMENTS ARE IN PLACE TO SUPPORT DEVELOPMENT OF THE LOTS OF LAND HEREIN REFERRED TO AS TIERRA VERDE SOUTH ADDITION. THEREFORE, THE DEVELOPER'S COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS AGREEMENT SHALL BE A CONDITION PRECEDENT TO THE GRANTING OF BUILDING AND/OR OCCUPANCY PERMITS FOR DEVELOPMENT ON SAID PROPERTY.
17. THE DEVELOPER SHALL FILE WITH THE SEDGWICK COUNTY REGISTER OF DEEDS AN EXECUTED COPY OF THIS AGREEMENT INCLUDING THE ATTACHMENTS OF THE FINAL PUD SITE PLAN, THE LANDSCAPE AND DRAINAGE PLAN AND THE SIGNAGE PLAN ALL AS APPROVED BY THE CITY OR GOVERNING BODY.
18. UPON FULL EXECUTION HEREOF AND UPON ATTACHMENT OF THE PUD SITE PLAN, THE LANDSCAPE PLAN, THE DRAINAGE PLAN, AND THE SIGNAGE PLAN, ALL APPROVED AS PROVIDED HEREIN AT THE TIME EACH INDIVIDUAL LOT IS DEVELOPED, THE TERMS AND CONDITIONS OF THIS AGREEMENT, AS SET FORTH HEREIN, SHALL BE BINDING UPON THE CITY AND THE DEVELOPER, THEIR SUCCESSORS, REPRESENTATIVES, TRUSTEES, AND ASSIGNS.



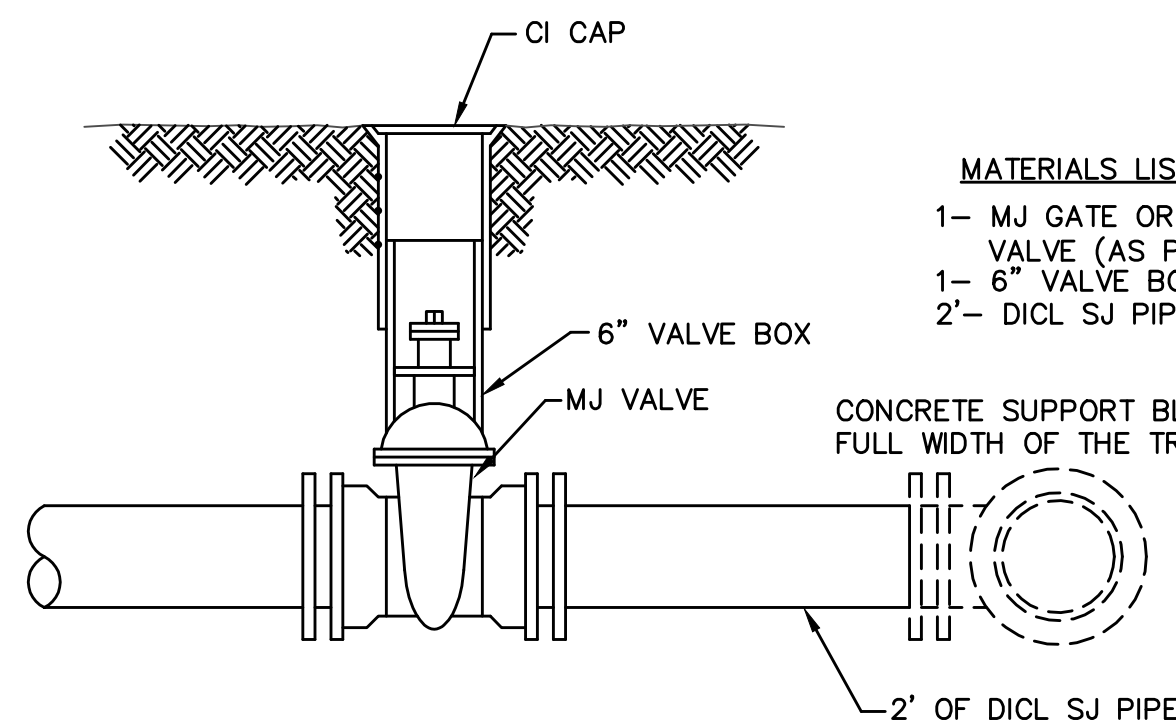
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



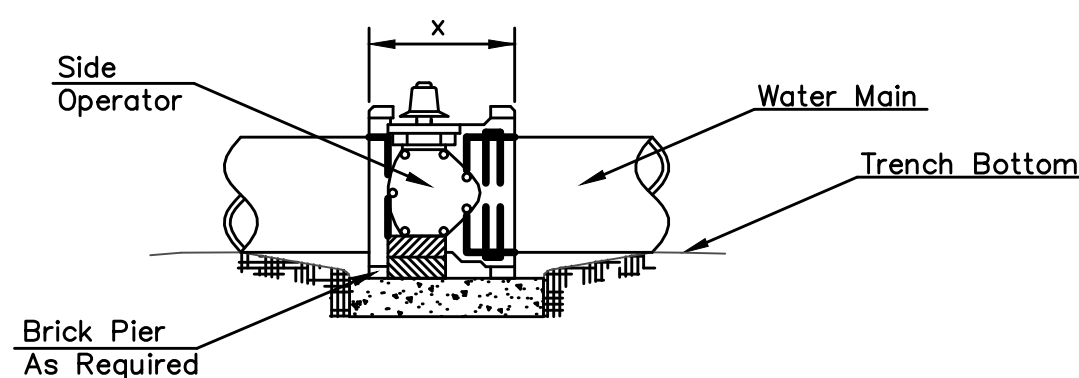
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-MJ ANCHOR COUPLING (12" OR SMALLER)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



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

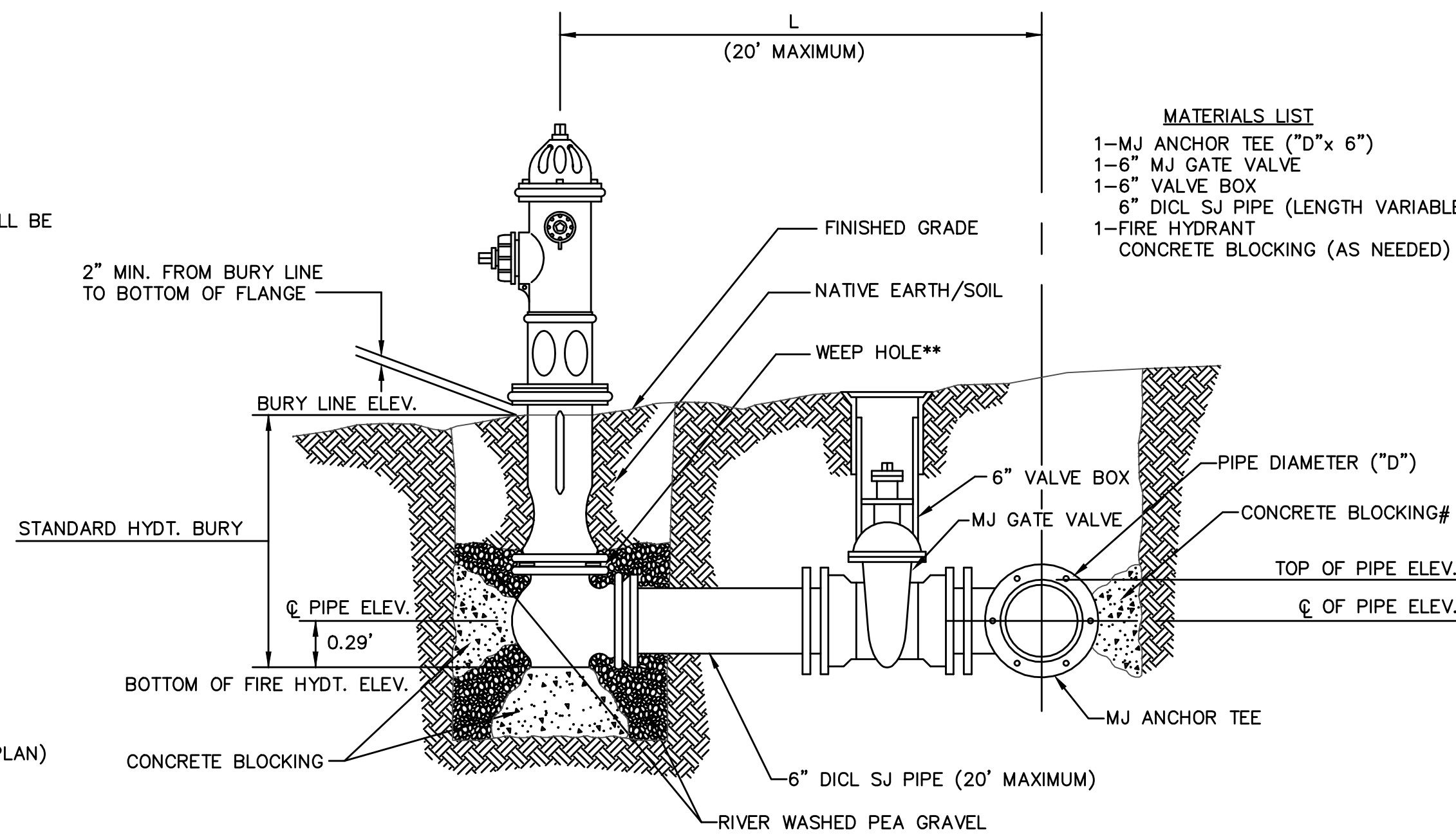
VALVE ASSEMBLY



NOTES

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

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



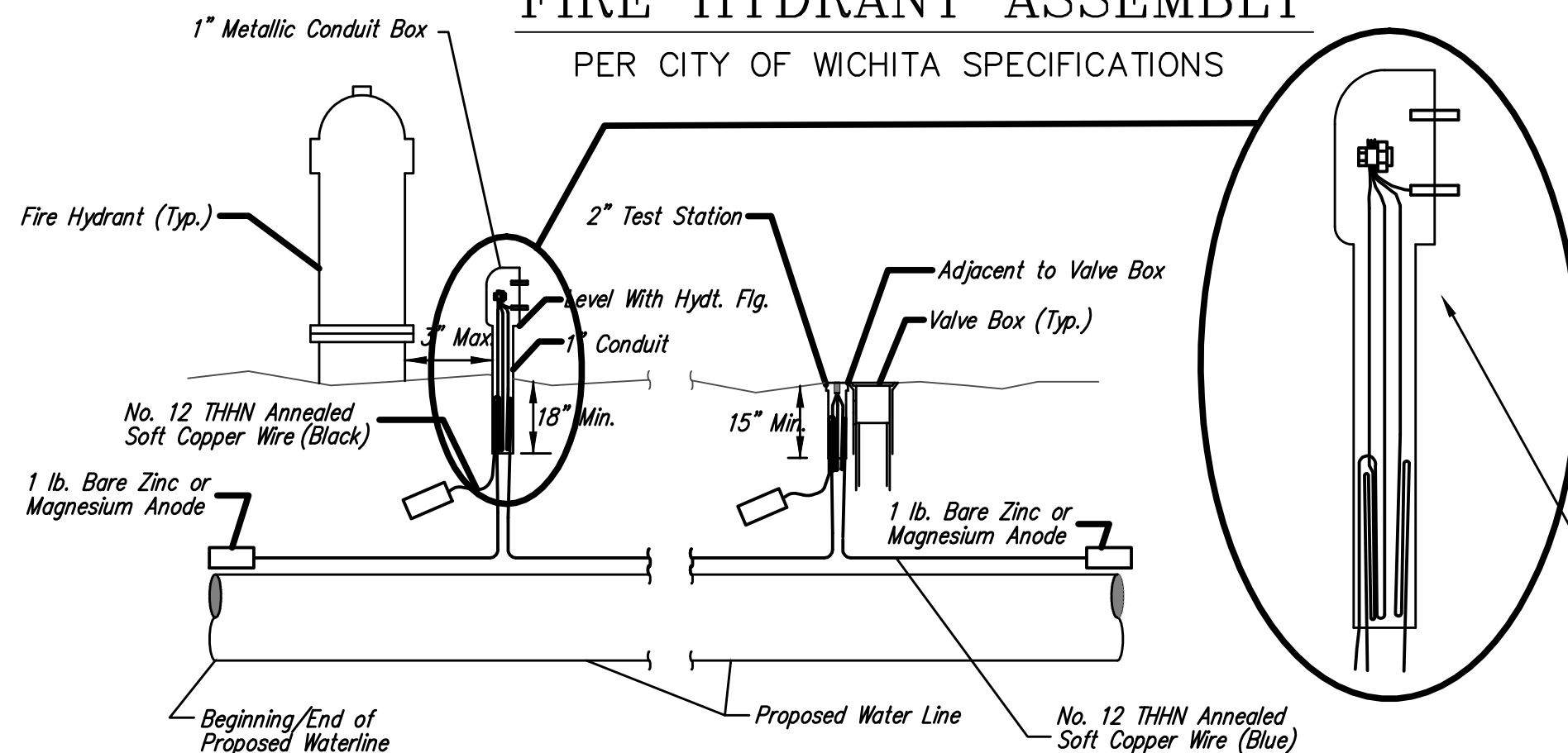
- MATERIALS LIST**
 1-MJ ANCHOR TEE ("D"x 6")
 1-6" MJ GATE VALVE
 1-6" VALVE BOX
 6" DI CL SJ PIPE (LENGTH VARIABLE)
 1-FIRE HYDRANT
 CONCRETE BLOCKING (AS NEEDED)

- ** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.**
- # 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*
0+4.00	1421.54	1415.33	6.5'

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.

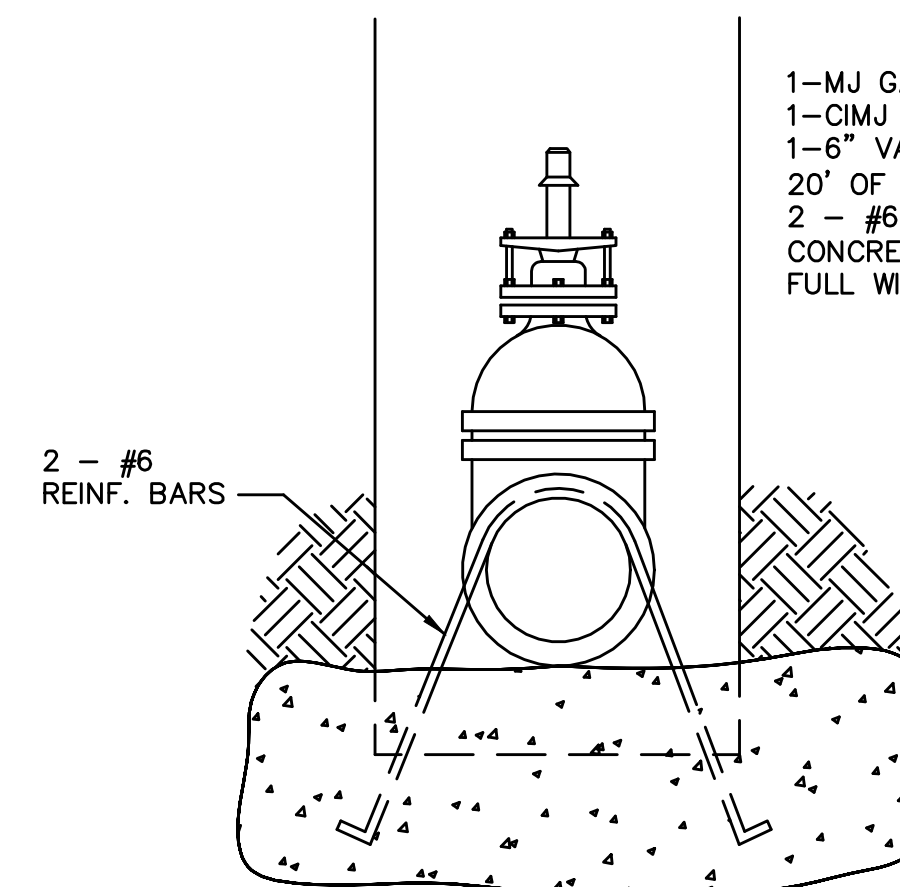
TEST STATIONS

The test station for fire hydrant applications shall be a 1 inch galvanized conduit 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 conduit style 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

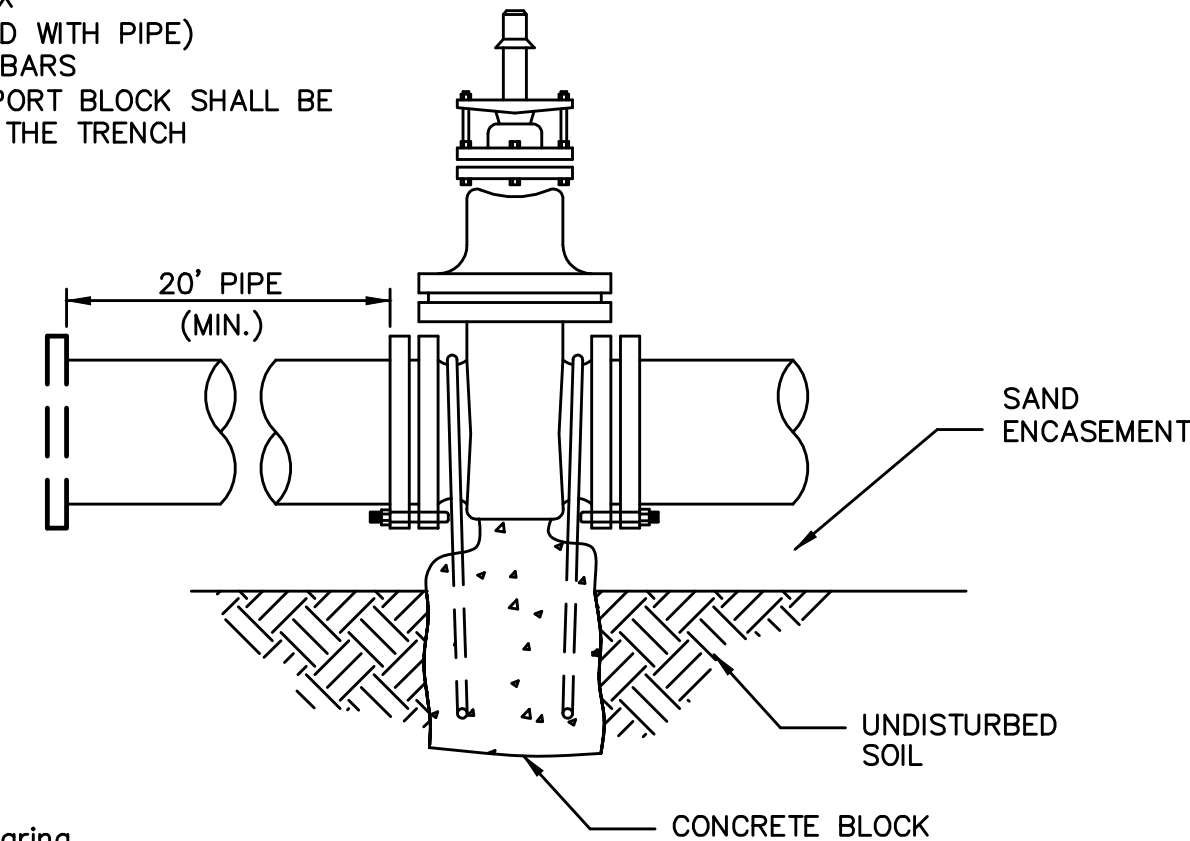
The anodes shall be 1 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL
 COST IS SUBSIDIARY TO PIPE INSTALLATION



- 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.

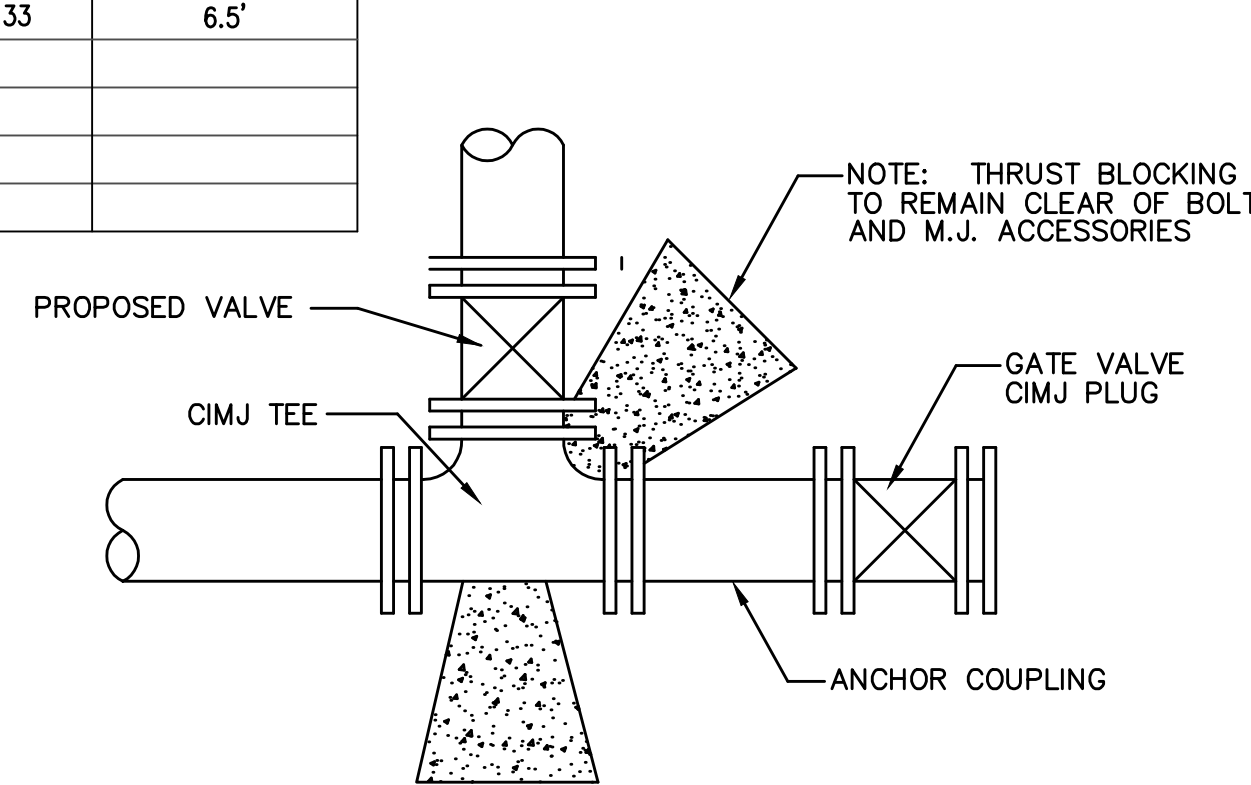
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-CIMJ CAP WHEN NECESSARY
 1-6" VALVE BOX
 20' OF PIPE (BID WITH PIPE)
 2 - #6 REINF. BARS
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



THRUST AT VALVES

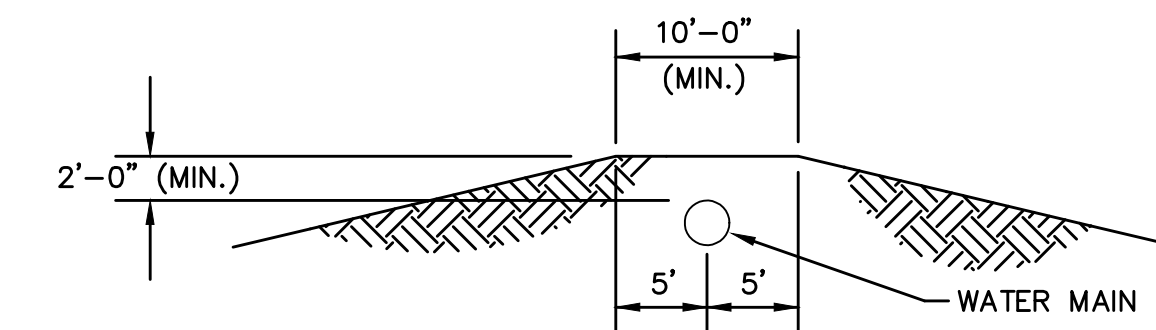
VALVE	THRUST AT 150 #/sq
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



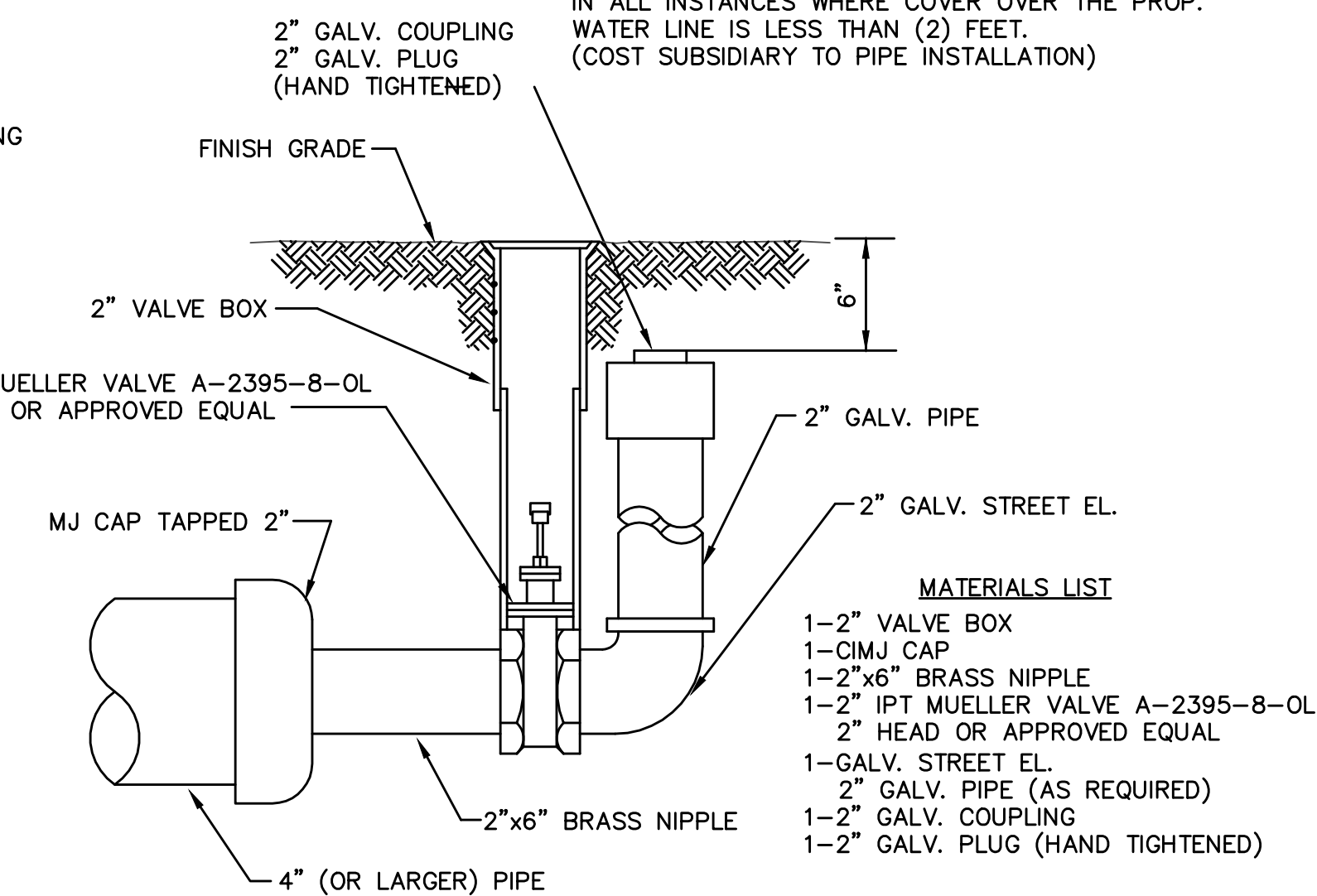
KEY BLOCK DETAIL

2 Blue Wires and 1 Block Wire All Connected to Single Test Lead With Split Bolt Connection and Blue No. 12 THHN Annealed Soft Copper Wire



PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) 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

CITY OF WICHITA PUBLIC WORKS ENGINEERING

STANDARD WATER ASSEMBLY DETAILS

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

PROJECT NUMBER 1586 PPW
 OCA NUMBER 607853
 DATE MM/YY

CITY ENGINEER'S OFFICE
 CITY HALL - SEVENTH FLOOR
 425 NORTH MAIN STREET
 WICHITA, KANSAS 67202-1620
 (316) 268-4501
 (316) 268-4114 FAX

DESIGN ABC
 DRAWN DEF
 SHEET 5 OF 5

REV: 8-14-01, MCG