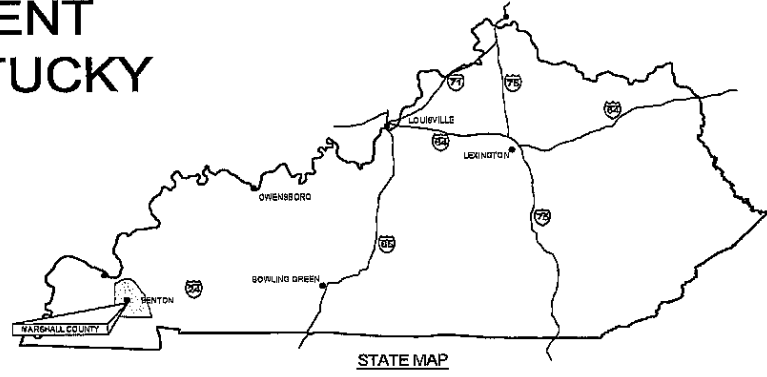
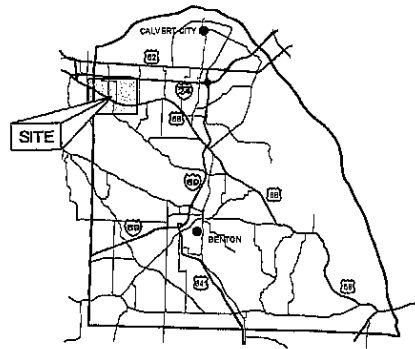


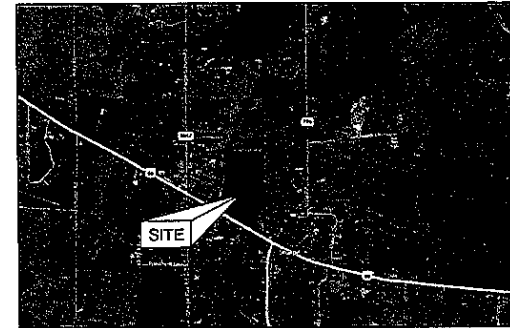
HILL CREEK DEVELOPMENT MARSHALL COUNTY, KENTUCKY



STATE MAP



COUNTY MAP



SITE MAP

Sheet Number	Sheet Title
CS.0	COVER SHEET
CS.1	SUBDIVISION - PROPOSED DEVELOPMENT PLAN
CS.2	SUBDIVISION - PROPOSED GRADING PLAN
CS.3	ROADWAY PLAN & PROFILE
CS.4	ROADWAY PLAN & PROFILE
CS.5	ROADWAY PLAN & PROFILE
CS.6	SUBDIVISION - PROPOSED UTILITY PLAN
CS.7	DETAILS
CS.8	DETAILS
CS.9	DETAILS
CS.10	DETAILS

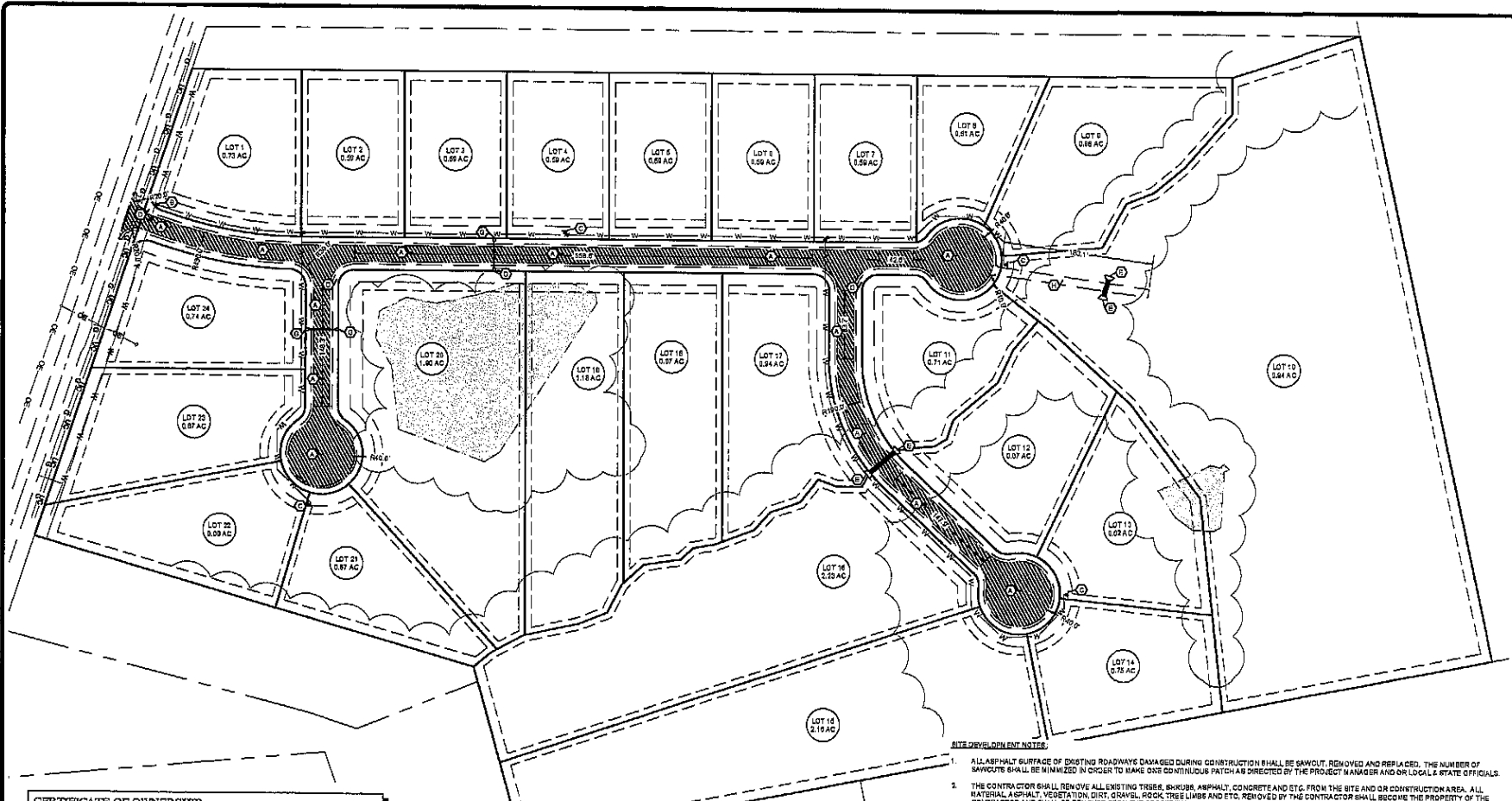
PROJECT NO. 15058	DATE 2/11/15	BY DATE
DRAWN BY S.H.	CHECKED BY B.W.	
JOB DESCRIPTION		

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
RESIDENTIAL ENGINEERING & CONSTRUCTION | LANDSCAPE ARCHITECTURE
PLANNING | SURVEYING | CIVIL ENGINEERING

OWNER	ENGINEER	SURVEYOR
<p>HILLCREEK SUBDIVISION U.S. HIGHWAY 68 MARSHALL CO, KY 270-519-6431</p> <p>CONTACT JAMES MITCHELL</p>	<p>BACON, FARMER, WORKMAN ENGINEERING & TESTING, INC. 500 SOUTH 17TH STREET PADUCAH, KENTUCKY 42002 OFFICE: (270) 443-1995 FAX: (270) 443-1904</p> <p>PROJECT ENGINEER KENNETH D. McDANIEL, P.E.</p>	<p>BACON, FARMER, WORKMAN ENGINEERING & TESTING, INC. 500 SOUTH 17TH STREET PADUCAH, KENTUCKY 42002 OFFICE: (270) 443-1995 FAX: (270) 443-1904</p> <p>SURVEYOR JETT WOOD, P.L.S.</p>

COVER SHEET
HILLCREEK SUBDIVISION
U.S. HIGHWAY 68
MARSHALL CO, KY
SHARPEL, KY

SHEET
CO.0



CERTIFICATE OF OWNERSHIP
 I, (OWN) HEREBY CERTIFY THAT I AM (OWNER) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (OWN) HEREBY ADOPT THIS PLAN WITH MY (OUR) FREE CONSENT.
 OWNERS SIGNATURE _____ DATE _____

SITE PLAN KEY NOTES:
 * ALL KEY NOTES ARE FOR PROPOSED ITEMS. SEE SITE DETAIL SHEETS FOR SPECIFIC DETAILS OF CONSTRUCTION.
 (A) ROADWAY SECTION. SEE DETAIL 1, SHEET C5.8.
 (B) TYPICAL TAPPING VALVE. SEE DETAIL 5, SHEET C5.0.
 (C) FIRE HYDRANT ASSEMBLY. SEE DETAIL 5, SHEET C5.0.
 (D) STANDARD STOP SIGN. SEE DETAIL 4, SHEET C5.0.
 (E) 60" PRECAST CONCRETE HEADWALL. SEE DETAIL 1, SHEET C5.1.
 (F) 18" PRECAST CONCRETE HEADWALL. SEE DETAIL 2, SHEET C5.1.
 (G) GRAVEL DRIVE. SEE DETAIL 2, SHEET C5.0.

1 SUBDIVISION - PROPOSED DEVELOPMENT PLAN

LEGEND	
(---)	PROPERTY LINE
(---)	ADJACENT PROPERTY LINE
(---)	EXISTING TREE LINE
(---)	EXISTING WATER LINE
(---)	EXISTING PAVEMENT
(---)	EXISTING GAS LINE
(---)	EXISTING UNDERGROUND UTILITIES
(---)	PROPOSED PAVEMENT
(---)	PROPOSED WATER MAIN
(---)	PROPOSED STORM SEWER
(---)	EXISTING FENCE LINE
(---)	PROPOSED ASPHALT PAVEMENT
(---)	FIRE HYDRANT
(---)	HEADWALL

- SITE DEVELOPMENT NOTES:**
- ALL ASPHALT SURFACE OF EXISTING ROADWAYS DAMAGED DURING CONSTRUCTION SHALL BE SAWCUT, REMOVED AND REPLACED. THE NUMBER OF SAWCUTS SHALL BE MINIMIZED IN ORDER TO MAKE ONE CONTINUOUS PATCH AS DIRECTED BY THE PROJECT MANAGER AND OR LOCAL STATE OFFICIALS.
 - THE CONTRACTOR SHALL REMOVE ALL EXISTING TREES, SHRUBS, ASPHALT, CONCRETE AND ETC. FROM THE SITE AND OR CONSTRUCTION AREA. ALL MATERIAL ASPHALT, VEGETATION, DIRT, GRAVEL, ROCK TREE LIMBS AND ETC. REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROPERTY IN AN APPROVED MANNER AT NO ADDITIONAL COST TO THE OWNER.
 - ALL AREAS DESIGNATED AS LAWN OR LANDSCAPE SHALL RECEIVE A MINIMUM OF 6" TOPSOIL.
 - COMPACTION REQUIREMENTS:
 PAVEMENT AREAS - 95%
 ALL OTHER AREAS - 100%
 COMPACTION SHALL BE PER ASTM D-1557, STANDARD PROCTOR (% MAXIMUM DRY DENSITY).
 - ALL SITE CONCRETE SHALL BEAR ENGRAINED 4000 psi @ 28 DAYS, 1" MAX. AGGREGATE SIZE WITH "WELDED WIRE FABRIC" REINFORCING.
 - ALL LOCAL BUILDING PERMITS, FEES AND ETC. ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK SHALL BE IN CONFORMANCE WITH THE COUNTY OF BARRHILL STANDARDS AND PROCEDURES.
 - ALL WORK WITHIN ROADWAY EASEMENTS & ROW SHALL CONFORM TO LOCAL STANDARDS. IF DISTURBED, ALL ASPHALT PAVEMENT, SIDEWALK & CURB & GUTTER AND ETC. TO BE REINSTALLED SHALL MATCH EXISTING WIDTH, THICKNESS & ETC.
 - CONTRACTOR SHALL IMPLEMENT TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH APPLICABLE STATE & LOCAL STANDARDS, PROCEDURES AND REGULATIONS WHILE WORKING WITHIN ROADWAY EASEMENTS & ROW OR WHEN WORK AFFECTS TRAFFIC FLOW OR SAFETY.
 - ALL STREETS AND ROADWAYS ADJACENT TO PROJECT SHALL BE CLEANED OF DIRT AND DEBRIS AT THE END OF EACH DAY.
 - PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND FIELD LOCATING ALL UTILITIES WITHIN THE PROJECT LIMITS SO THAT CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITIES. IF ANY UTILITIES ARE DAMAGED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE UTILITIES AT THE CONTRACTOR'S EXPENSE. FINISHED REPLACEMENT OR REPAIR SHALL MEET THE APPROVAL OF THE SPECIFIC UTILITY OWNER.
 - 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 WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
 - BEFORE CONSTRUCTION, THE CONTRACTOR SHOULD CONTACT KENTUCKY 811.
 - THE CONTRACTOR SHALL NOT SCALE FROM THESE PLANS FOR FIELD SURVEY LOCATIONS.

PROJECT NO.	DATE	BY

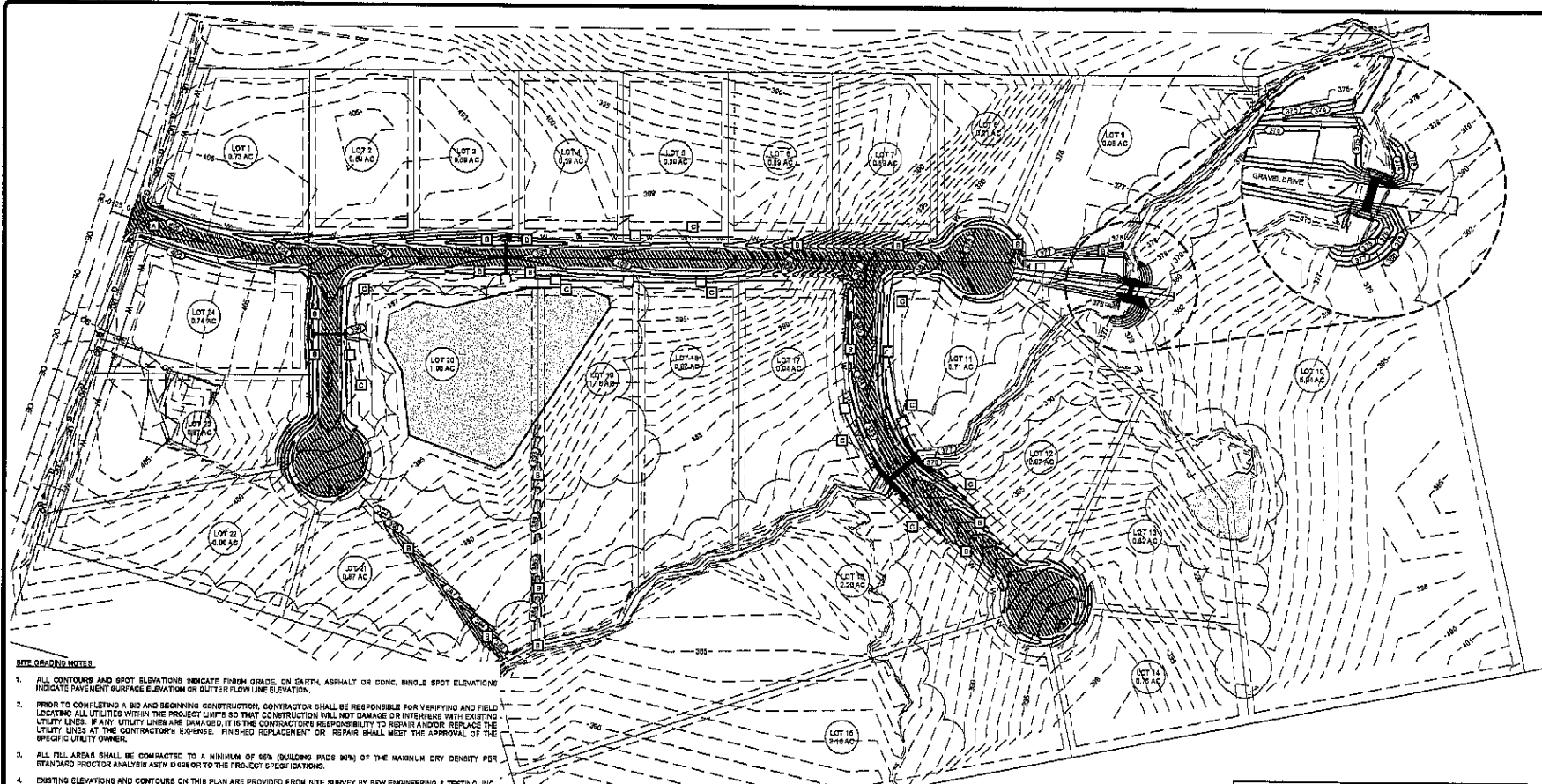
NO.	DESCRIPTION	DATE

BACON FARMER | WORKMAN
 ENGINEERING & TESTING, INC.
 1000 W. MAIN ST. SUITE 100
 BARRHILL, KY 40307
 PHONE: 502.838.1111
 FAX: 502.838.1112



SUBDIVISION - PROPOSED DEVELOPMENT PLAN
 HILL CREEK SUBDIVISION
 BARRHILL, KY
 SHEET C1.0

SHEET C1.0



- SITE GRADING NOTES:**
1. ALL CONTOURS AND SPOT ELEVATIONS INDICATE FROM GRADE, ON GAITH, ASPHALT OR CONC. SINGLE SPOT ELEVATIONS INDICATE PAVEMENT SURFACE ELEVATION OR GUTTER FLOW LINE ELEVATION.
 2. PRIOR TO COMPLETING A BID AND BEGINNING CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND FIELD LOCATING ALL UTILITIES WITHIN THE PROJECT LIMITS SO THAT CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. IF ANY UTILITY LINES ARE DAMAGED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE UTILITY LINES AT THE CONTRACTOR'S EXPENSE. FINISHED REPLACEMENT OR REPAIR SHALL MEET THE APPROVAL OF THE SPECIFIC UTILITY OWNER.
 3. ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% (BUILDING PADS 80%) OF THE MAXIMUM DRY DENSITY PER STANDARD PROCTOR ANALYSIS ASTM D1557 OR TO THE PROJECT SPECIFICATIONS.
 4. EXISTING ELEVATIONS AND CONTOURS ON THIS PLAN ARE PROVIDED FROM SITE SURVEY BY BFW ENGINEERING & TESTING, INC. CONTRACTOR SHALL COORDINATE HORIZONTAL AND VERTICAL CONTROL WITH ENGINEER OR SURVEYOR PRIOR TO COMPLETING A BID AND COMMENCEMENT OF CONSTRUCTION.
 5. IMPROPER GRADING/FINISHING OF ALL EXCAVATION AND FILL PLACEMENT WITHIN THE PROJECT LIMITS OR ADJACENT RIGHT-OF-WAYS THAT RESULTS IN DRAINAGE PROBLEMS SHALL BE REMOVED AND REINSTALLED TO IMPLEMENT POSITIVE DRAINAGE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
 6. THE CONTRACTOR IS RESPONSIBLE FOR SEDIMENTATION CONTROL OF ON-SITE RUNOFF IN ACCORDANCE WITH THE ACCEPTED EROSION AND SEDIMENTATION CONTROL PRACTICES FOR CONSTRUCTION ACTIVITIES IN THE STATE OF KENTUCKY AND/OR CITY OF SHARPE.
 7. THE IMPROVEMENT OF THIS SITE SHALL NOT OBSTRUCT THE NECESSARY DRAINAGE REQUIRED.
 8. THE DRAINAGE PATTERN CREATED BY THE DEVELOPMENT OF THIS SITE SHALL BE CONSISTENT WITH THE PREVIOUS STORMWATER DRAINAGE PATTERNS. THE ADJACENT PROPERTY OWNERS SHALL NOT REALIZE ANY CHANGE IN RUNOFF TO THEIR PROPERTY.
 9. ALL POTENTIAL EROSION SHALL BE CONTROLLED IN SUCH A MANNER SO AS TO PREVENT ANY DISPLACEMENT OF SILT TO THE ADJACENT PROPERTY OWNERS OR RIGHT-OF-WAY.
 10. 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 WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
 11. BEFORE CONSTRUCTION, THE CONTRACTOR SHOULD CONTACT KENTUCKY 811.
 12. ALL DISTURBED AREAS NOT TO RECEIVE PAVEMENT SHALL BE BACKFILLED WITH MINIMUM #1 TOPSOIL, FINE GRADED TO DRAIN, GRADED, PROTECTED OR LANDSCAPED, FERTILIZED AND PROTECTED.
 13. THE CONTRACTOR SHALL NOT SCALE FROM THESE PLANS FOR FIELD SURVEY LOCATIONS.
 14. ALL SOFT AND UNSUITABLE MATERIAL IN AREAS TO RECEIVE FILL MUST BE OVER-EXCAVATED TO A STABLE SUBGRADE, AND BACKFILLED WITH AN APPROVED ENGINEERED BACKFILL. ALL BACKFILL MUST MEET THE CONSTRUCTION REQUIREMENTS OF THE SPECIFICATIONS OR AS SHOWN ON THIS DRAWING, WHICHEVER IS THE MORE STRINGENT REQUIREMENT.
 15. AT PROPOSED ENTRANCES CONTRACTOR IS TO MATCH PROPOSED PAVEMENT WITH EXISTING PAVEMENT TO MEET COUNTY AND STATE STANDARDS.

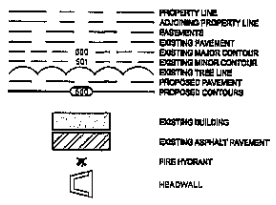
SUBDIVISION - PROPOSED GRADING PLAN

- EROSION AND SEDIMENTATION CONTROL NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE FOR SEDIMENTATION AND EROSION CONTROL IN ACCORDANCE WITH THE COUNTY SPECIFICATIONS AND GENERALLY ACCEPTED EROSION AND SEDIMENTATION CONTROL PRACTICES FOR THE STATE.
 2. ALL POTENTIAL EROSION SHALL BE CONTROLLED IN SUCH A MANNER SO AS TO PREVENT ANY DISPLACEMENT OF SILT TO THE ADJACENT PROPERTY OWNERS, ADJACENT STREAMS OR DRAINAGE DITCHES OR ADJACENT RIGHT-OF-WAYS. THIS CONTROL SHALL BE IMPLEMENTED ACCORDING TO THE OUTLINES ESTABLISHED ON THIS PLAN AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL PROPER GROUND COVER HAS BEEN ESTABLISHED.
 3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENTATION CONTROL STRUCTURES. SILT FENCE, STRAW BALES, ETC. SHALL BE INSPECTED REGULARLY AND SHALL BE REPAIRED, CLEANED, AND/OR REINSTALLED AS NECESSARY TO MEET THE INTENT OF THIS PLAN.
 4. THE CONTRACTOR SHALL INSTALL ROCK SUBGRADE AND/OR PAVE THE SITE AS SOON AS PRACTICAL TO ESTABLISH REQUIRED GROUND COVER.
 5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REMOVAL OF EROSION PREVENTION AND SEDIMENTATION CONTROL STRUCTURES AFTER CONSTRUCTION IS COMPLETE, BUT ONLY AFTER PROPER GROUND COVER HAS BEEN ESTABLISHED.
 6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR REMOVAL OF DIRT AND CONSTRUCTION DEBRIS FROM THE ADJACENT STREET'S AND/OR PARKING AREA ON A DAILY BASIS FOR THE DURATION OF THIS PROJECT, THAT WERE CAUSED BY CONSTRUCTION ACTIVITIES AT THIS SITE.
 7. ALL EROSION CONTROL MEASURES TO TRAP SEDIMENT ON-SITE MUST BE CONSTRUCTED AND FUNCTIONAL PRIOR TO ANY GRADING OPERATIONS OR LAND DISTURBANCE TAKING PLACE.

- SITE PLAN KEY NOTES:**
- * ALL KEY NOTES ARE FOR PROPOSED ITEMS. SEE SITE DETAIL SHEETS FOR SPECIFIC DETAILS OF CONSTRUCTION
 - A CONSTRUCTION ENTRANCE. SEE DETAIL 3, SHEET C6.1
 - B ROCK SILT CHECK STRUCTURE. SEE DETAIL 4, SHEET C6.1
 - C SILT FENCE. SEE DETAIL 4, SHEET C6.1

BURIED UTILITIES NOTE

ALL UTILITIES ARE LOCATED THEIR APPROXIMATE LOCATION HAS BEEN DETERMINED FROM UTILITY COMPANIES AND FIELD SURVEY. THE EXACT LOCATION OF UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ALL UTILITIES. CONTACT KENTUCKY 811 (811) OR 1-800-752-6007 FOR PRACTICALITY OF BURIED UTILITIES PRIOR TO CONSTRUCTION OPERATIONS.



Kentucky 811
 Know what's Below.
 Call before you dig.
 Call 811 or 800-752-6007
 www.kentucky811.com
 Two Business Days Before You Dig
 IT'S THE LAW

PROJECT NO. 1509	DATE: 07/15
DRAWN BY: JRM	CHECKED BY: JRM
SCALE: AS SHOWN	BY DATE:
REVISIONS:	

PROJECT NO. 1509	DATE: 07/15
DRAWN BY: JRM	CHECKED BY: JRM
SCALE: AS SHOWN	BY DATE:
REVISIONS:	

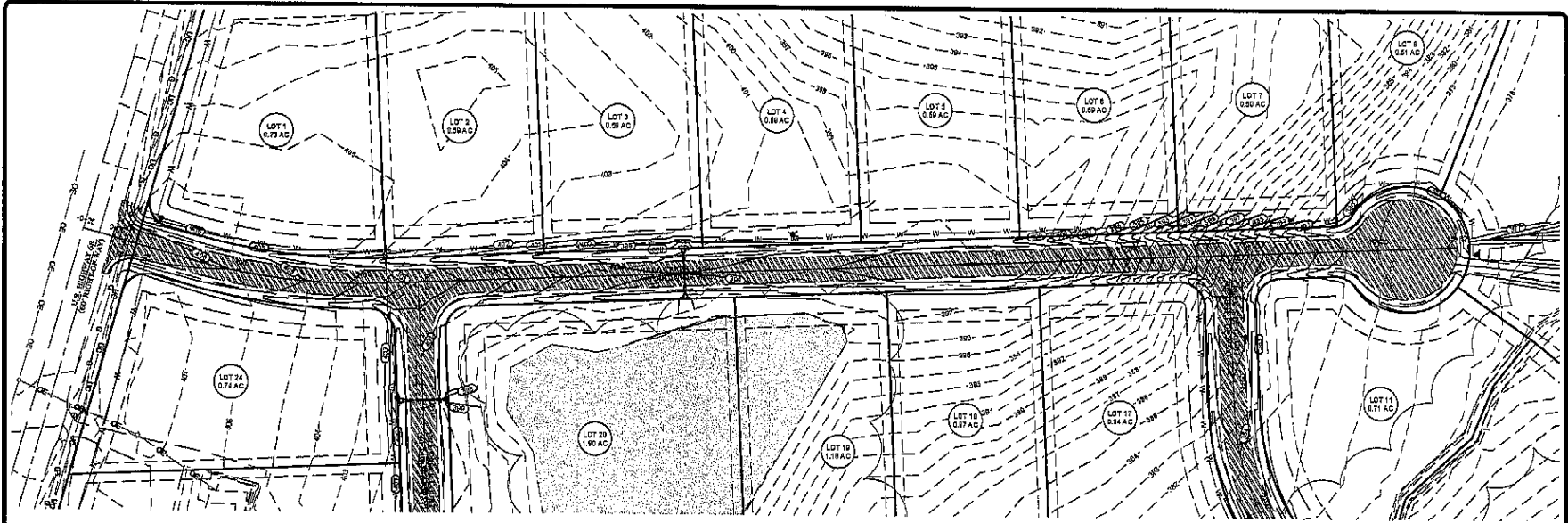
BACON | FAIRMER | WORKMAN
 ENGINEERING & TESTING, INC.
 1000 W. MAIN ST. SUITE 200
 SHARPE, KY 40374
 PHONE: 502-338-1111
 FAX: 502-338-1112
 WWW.BACONFAIRMERWORKMAN.COM

EROSION - PROPOSED GRADING PLAN

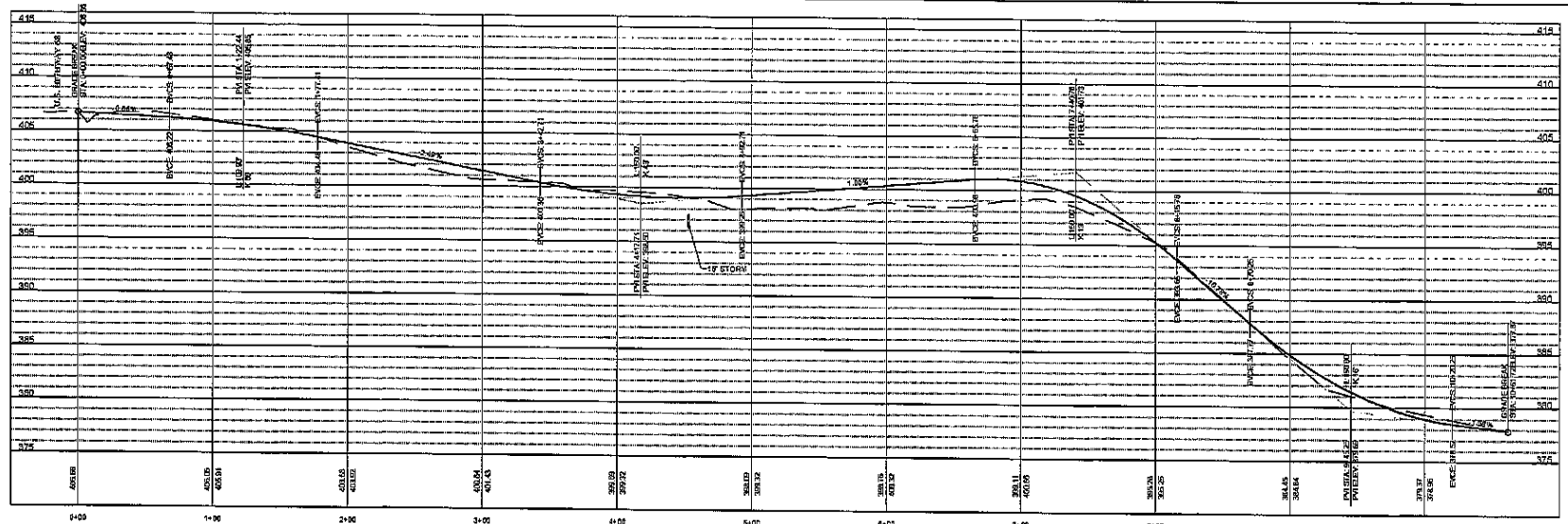
ALL CREEK EROSION CONTROL
 US HIGHWAY 98
 SHARPE, KY

HELL CREEK EROSION CONTROL

SHEET
C2.0



1 ROADWAY PLAN
SCALE: HORIZ. 1"=40'



2 ROADWAY PROFILE
SCALE: HORIZ. 1"=40' VERT. 1"=2'

PROJECT NO. 1359	DATE 07/15
DRAWN BY: BJA	CHECKED BY: KAM
DATE DESCRIPTION	BY DATE

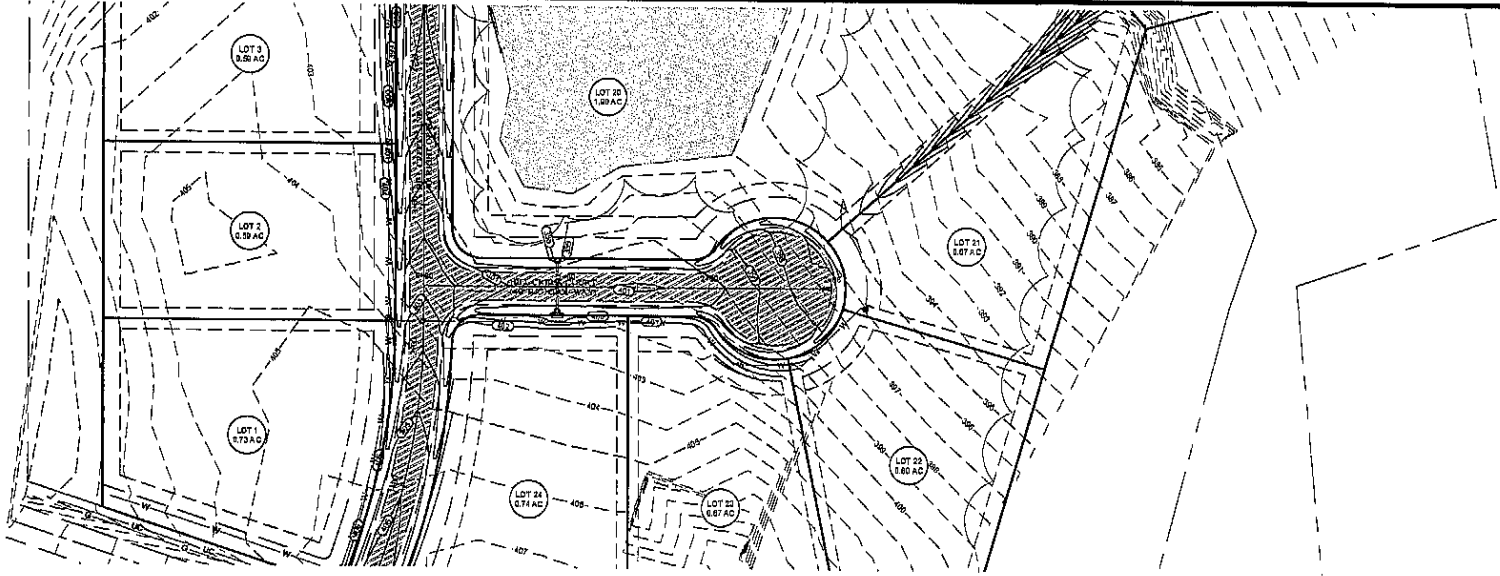
PROJECT NO. 1359	DATE 07/15
DRAWN BY: BJA	CHECKED BY: KAM
DATE DESCRIPTION	BY DATE

BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
1000 W. 10TH ST. SUITE 200
SANDUSKI, NY 14850
PHONE: 607.734.2200
FAX: 607.734.2201
WWW.BFW-INC.COM

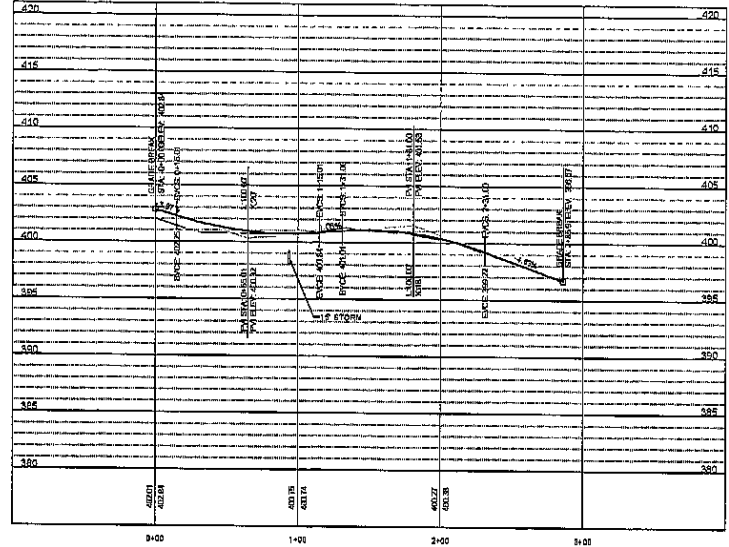


ROADWAY PLAN & PROFILE
HILL CREEK SUBDIVISION
US HIGHWAY 88
SANDUSKI, NY

SHEET
C3.0



1 ROADWAY PLAN
SCALE: 1"=40'



2 ROADWAY PROFILE
SCALE: 1"=40' VERT 1"=10'

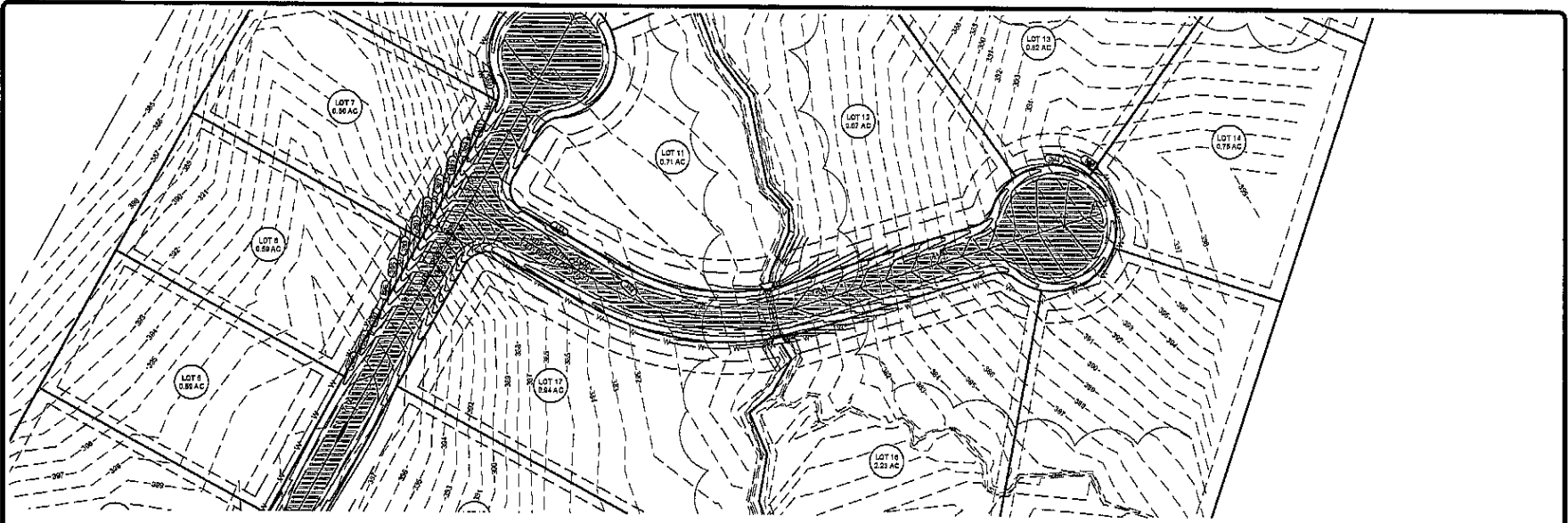
REV	DATE	BY	CHK

BACON FARMER WORKMAN
ENGINEERING & SURVEYING, INC.
1000 W. 10TH STREET, SUITE 100
MARIETTA, GA 30067
PHONE: 770.429.1100
FAX: 770.429.1101
WWW.BACONFARMERWORKMAN.COM

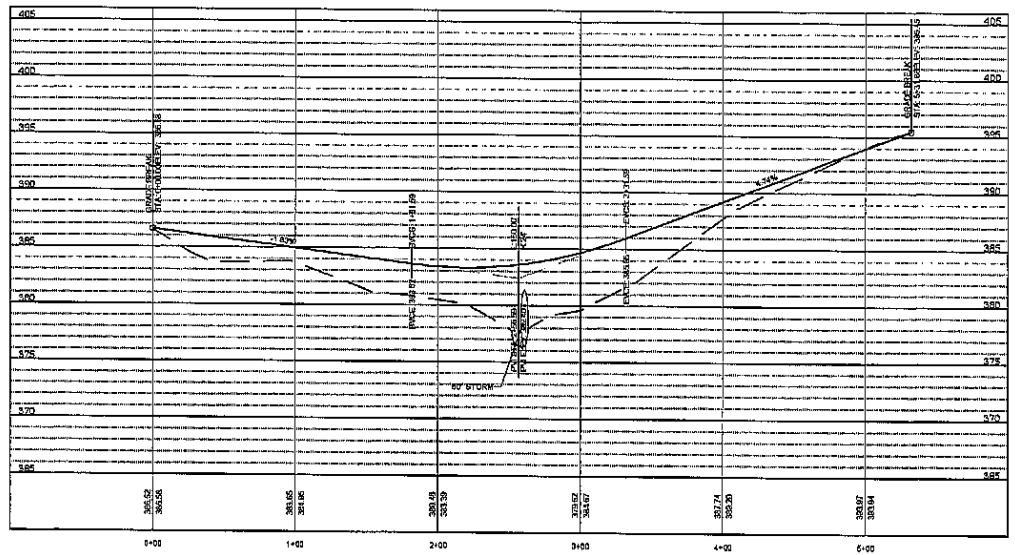
BFW

ROADWAY PLAN & PROFILE
SHELL CREEK SUBDIVISION
PHASE 1B
SUMMERVILLE, GA

SHEET
C3.1



1 ROADWAY PLAN
SCALE: 1"=40'



2 ROADWAY PROFILE
SCALE: HORIZ. 1"=40' VERT. 1"=4'

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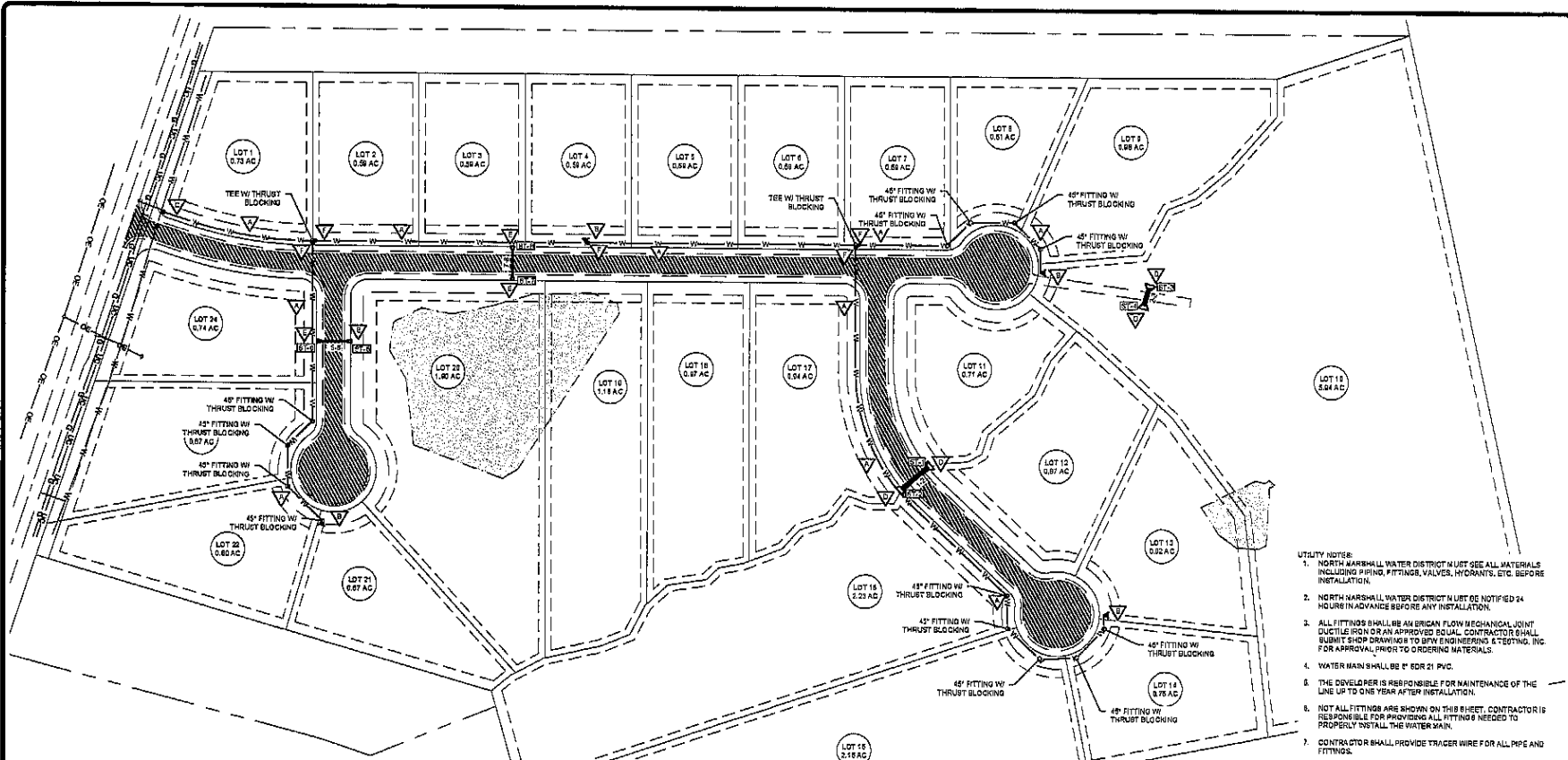
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PROJECT NO.	DATE	DATE	DESCRIPTION	BY	DATE

BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
REGISTERED PROFESSIONAL ENGINEERS
PROJECT NO. 2019-010
DATE: 05/20/2019
SCALE: AS SHOWN
DRAWN BY: JLD
CHECKED BY: JLD
APPROVED BY: JLD

ROADWAY PLAN & PROFILE
HILL CREEK SUBDIVISION US HIGHWAY 98 SHARPE, NY
HILL CREEK SUBDIVISION

SHEET
C3.2



- STORM WATER NOTES:**
1. ALL STORM WATER PIPE WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE REINFORCED CONCRETE PIPE (RCP) AND/OR HIGH DENSITY POLYETHYLENE PIPE (HDPE). ALL HOPE PIPE SHALL HAVE A SMOOTH INTERIOR WALL.
 2. ALL BACKFILL MATERIALS SHALL BE AS SPECIFIED ON THE DETAILS. SEE SITE DETAIL SHEETS FOR SPECIFIC INFORMATION.
 3. ALL STORM WATER PIPE SHALL HAVE A MINIMUM COVER OF 12" OVER THE TOP OF PIPE AT ALL TIMES INCLUDING DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE MINIMUM COVER IN ALL CASES. IF DISCREPANCIES EXIST IN THE GROUND PLAN OR IF UNUSUAL SITE CONDITIONS EXIST THAT WILL NOT ALLOW THIS COVER AS DESIGNED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
 4. ALL STORM WATER PIPE BENEATH PAVEMENT SHALL BE BACKFILLED FULL DEPTH WITH DENSE GRADED AGGREGATE (DGA).
 5. STORM WATER STRUCTURES SHALL BE PRE-CAST CONCRETE, UNLESS SPECIFIED OTHERWISE, AND SHALL MEET ALL THE SPECIFICATIONS FOR DRAINAGE STRUCTURES AS OUTLINED IN THE LOCAL STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
 6. PIPE FITTINGS ARE NOT DESIGNED ON THESE DRAININGS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND INSTALLING ALL FITTINGS TO COMPLETE THE STORM WATER PIPING INSTALLATION AS PART OF THEIR CONTRACT WITH NO ADDITIONAL COST TO THE OWNER. ALL CONNECTIONS REQUIRE FITTINGS PARTICULARLY.
 7. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING PIPE AND DRAINAGE STRUCTURE MATERIAL CERTIFICATIONS, SIZES AND QUANTITIES TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO CONSTRUCTION.
 8. STORM WATER PIPE AND DRAINAGE STRUCTURES SHALL BE INSTALLED IN PROPER CONSTRUCTION SEQUENCE SUCH THAT SITE DRAINAGE IS ALLOWED TO DRAIN FROM THE SITE. IT IS CRITICAL THAT THE STORM WATER RUNOFF BYPASS AND/OR EXIT THE AREA OF CONSTRUCTION TO PREVENT DEGRADATION OF THE SITE CAUSED BY PRECIPITATION AND/OR POLLUTING WATER.
 9. ALL STORM WATER PIPE AND DRAINAGE STRUCTURES SHALL BE PROTECTED DURING THE COURSE OF CONSTRUCTION. SPECIAL PROVISIONS MAY BE NECESSARY TO ACCOMMODATE CONSTRUCTION TRAFFIC AND REDUCED LOADS. CONTRACTOR SHALL REPAIR OR REPLACE ANY PIPE OR DRAINAGE STRUCTURES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

SUBDIVISION - PROPOSED UTILITY PLAN

- SITE PLAN KEY NOTES:**
- * ALL KEY NOTES ARE FOR PROPOSED ITEMS. SEE SITE DETAIL SHEETS FOR SPECIFIC DETAILS OF CONSTRUCTION
 - ▽ 6" 80R 21 PVC WATER MAIN BANG & BOWSER SHALL HAVE A MINIMUM OF 42" COVER FROM FINAL SURFACE GRADE.
 - ▽ FIRE HYDRANT ASSEMBLY. SEE DETAIL 3, SHEET C5.0.
 - ▽ TYPICAL TAPPING VALVE. SEE DETAIL 3, SHEET C5.0.
 - ▽ 60" PRECAST CONCRETE HEADWALL. SEE DETAIL 1, SHEET C6.1.
 - ▽ 15" PRECAST CONCRETE HEADWALL. SEE DETAIL 2, SHEET C6.1.
 - ▽ GATE VALVE AND BOX CULVAR. SEE DETAIL 1, SHEET C6.2.

UTILITY CONTRACTOR LIST:

GAS
 SENECA GAS
 201 MAIN STREET
 BENTON, KY 42025
 PH: (270) 527-9177

ELECTRIC
 JACKSON PURCHASE ENERGY CORPORATION
 2000 IRVIN COBB DRIVE
 PADUCAH, KY 42003
 PH: (270) 447-7321

WATER
 NORTH W. MARSHALL WATER DISTRICT
 71 CHARROLL ROAD
 BENTON, KY 42025
 PH: (270) 527-3300

TELEPHONE
 MEDTRON
 1330 SOUTH ENTERPRISE AVENUE
 SPRINGFIELD, MO 65804
 PH: (888) 623-4228

CABLE TV
 MEDTRON
 1330 SOUTH ENTERPRISE AVENUE
 SPRINGFIELD, MO 65804
 PH: (888) 623-4228

- UTILITY NOTES:**
1. NORTH MARSHALL WATER DISTRICT MUST SEE ALL MATERIALS INCLUDING PIPING, FITTINGS, VALVES, HYDRANTS, ETC. BEFORE INSTALLATION.
 2. NORTH MARSHALL WATER DISTRICT MUST BE NOTIFIED 24 HOURS IN ADVANCE BEFORE ANY INSTALLATION.
 3. ALL FITTINGS SHALL BE AN BRIGAN FLOW MECHANICAL JOINT DUCTILE IRON OR AN APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BFW ENGINEERING & TESTING, INC. FOR APPROVAL, PRIOR TO ORDERING MATERIALS.
 4. WATER MAIN SHALL BE 6" 80R 21 PVC.
 5. THE DEVELOPER IS RESPONSIBLE FOR MAINTENANCE OF THE LINE UP TO ONE YEAR AFTER INSTALLATION.
 6. NOT ALL FITTINGS ARE SHOWN ON THIS SHEET. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL FITTINGS NEEDED TO PROPERLY INSTALL THE WATER MAIN.
 7. CONTRACTOR SHALL PROVIDE TRACER WIRE FOR ALL PIPE AND FITTINGS.

Pipe Table						
NAME	DESCRIPTION	SIZE	LENGTH	SLOPE	UP/SLOPE STRUCTURE	DOWN/SLOPE STRUCTURE
1-2	60" CMP (Smooth Wall)	60"	40.51'	1.02%	ST-2	ST-1
2-3	60" CMP (Smooth Wall)	60"	21.27'	1.09%	ST-4	ST-3
3-5	15" CM P (8 month Wall)	15"	33.20'	1.05%	ST-6	ST-6
7-8	15" CM P (8 month Wall)	15"	24.27'	1.02%	ST-8	ST-7

STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
ST-1	Headwall (60") INV IN = 376.16	1-2, INV IN = 376.16	
ST-2	Headwall (36") INV OUT = 376.58		1-2, INV OUT = 376.58
ST-3	Headwall (60") INV IN = 373.12	2-3, INV IN = 373.12	
ST-4	Headwall (60") INV OUT = 373.33		2-3, INV OUT = 373.33
ST-5	Headwall (12" - 15") INV IN = 367.20	5-6, INV IN = 367.20	
ST-6	Headwall (12" - 15") INV OUT = 368.13		5-6, INV OUT = 368.13
ST-7	Headwall (12" - 15") INV IN = 365.10	7-8, INV IN = 365.10	
ST-8	Headwall (12" - 15") INV OUT = 366.44		7-8, INV OUT = 366.44

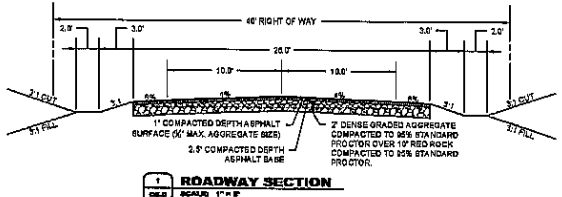
CONTRACTOR'S NAME	DATE PLOTTED
CONTRACTOR'S CELL	CONTRACTOR'S DRAW
REVISION DESCRIPTION	BY DATE

CONTRACTOR'S NAME	DATE PLOTTED
CONTRACTOR'S CELL	CONTRACTOR'S DRAW
REVISION DESCRIPTION	BY DATE

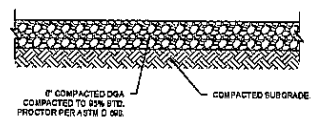
BACON | FARMER | WORKMAN
 ENGINEERING & TESTING, INC.
 4500 WOODLAND DRIVE
 BENTON, KY 42025
 PH: (270) 527-3300
 FAX: (270) 527-3300
 WWW.BACONFARMERWORKMAN.COM

BFW

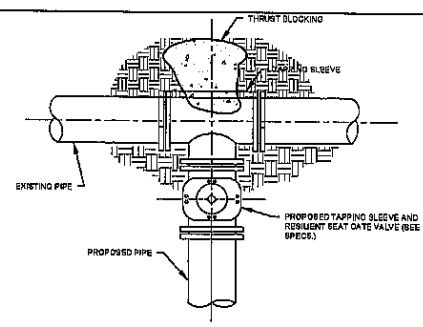
SHEET
C4.0



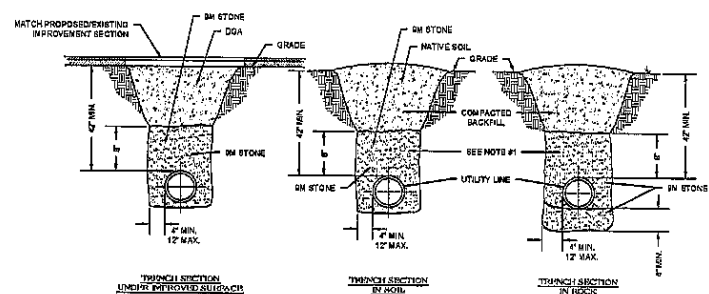
1 ROADWAY SECTION
SCALE: 1" = 8'



2 GRAVEL DRIVE
SCALE: 1" = 4'

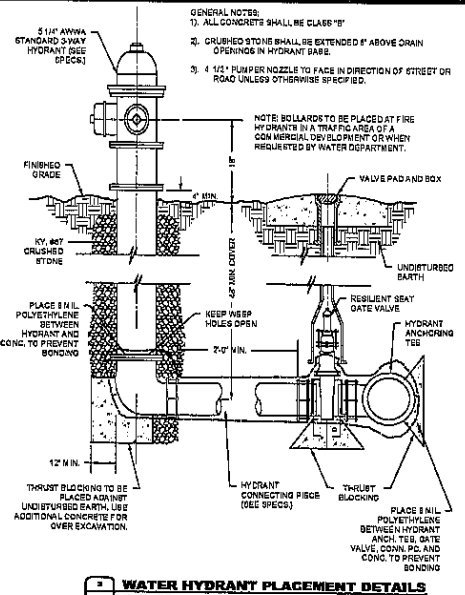


3 TYPICAL TAPPING VALVE INSTALLATION DETAIL
SCALE: 1" = 4'



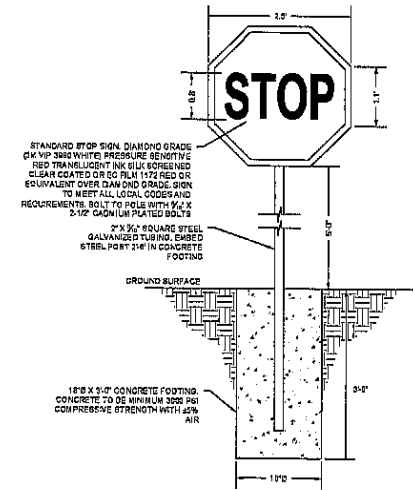
NOTE: 1. COMPACTED BACKFILL SHALL BE PLACED TO A 6" MIN. DEPTH OF COVER. THE INITIAL BACKFILL SHALL BE A MATERIAL FREE FROM ROCKS GREATER THAN 1/2" DIA., 8% OIL CLUMP, OR FROZEN MATERIAL. IF ALTIMATING TAMPERS ARE USED, CARE SHALL BE EXERCISED TO AVOID DAMAGE TO THE PIPE.

4 TYPICAL TRENCH CUT DETAIL
SCALE: 1" = 4'

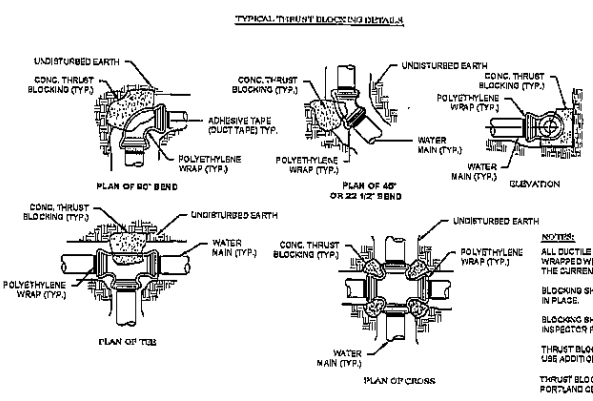


5 WATER HYDRANT PLACEMENT DETAILS
SCALE: 1" = 4'

GENERAL NOTES:
1. ALL CONCRETE SHALL BE CLASS "B"
2. CRUSHED STONE SHALL BE EXTENDED 6" ABOVE DRAIN OPENINGS IN HYDRANT BASE.
3. 4 1/2" PUMPER NOZZLE TO FACE IN DIRECTION OF STREET OR ROAD UNLESS OTHERWISE SPECIFIED.



6 STANDARD STOP SIGN
SCALE: 1" = 4'



7 TYPICAL THRUST BLOCKING DETAILS (WATER)
SCALE: 1" = 4'

THRUST / LOS. OF PRESSURE

PIPE SIZE	DEAD END OR TEE	1/4" BEND	1/2" BEND	1/2" BEND
4"	20	40	27	20
6"	39	80	54	29
8"	56	100	68	31
12"	112	160	88	46
18"	260	340	190	92

NOTES:
ALL DUCTILE IRON PIPE, FITTINGS AND VALVES SHALL BE WRAPPED WITH A POLYETHYLENE MATERIAL, 8 M.L. INSTALLED TO THE CURRENT ADDITION OF THE AWWA D-105.
BLOCKING SHALL BE POURED AFTER THE POLYETHYLENE WRAP IS IN PLACE.
BLOCKING SHALL BE INSPECTED BY THE DESIGN ENGINEER/INSPECTOR PRIOR TO BACKFILLING.
THRUST BLOCKS TO BE PLACED AGAINST UNDISTURBED EARTH. USE ADDITIONAL CONCRETE AS REQUIRED FOR OVER EXCAVATION.
THRUST BLOCKS SHALL BE CONSTRUCTED WITH CLASS "B" PORTLAND CEMENT CONCRETE, 2500 PSI, MINIMUM.

PROJECT NO. 2009	DATE: 07/15/10
DRAWN BY: J. L. HARRIS	CHECKED BY: J. L. HARRIS
SCALE: AS SHOWN	DATE: 07/15/10

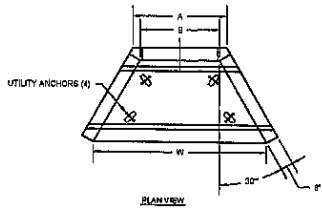
PROJECT NO. 2009	DATE: 07/15/10
DRAWN BY: J. L. HARRIS	CHECKED BY: J. L. HARRIS
SCALE: AS SHOWN	DATE: 07/15/10

RACON J. FARMER WORKMAN
ENGINEERING & TESTING, INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 10048 IN THE STATE OF TEXAS
P.O. BOX 1878
AUSTIN, TEXAS 78768

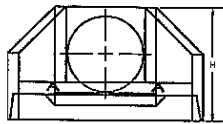


DETAILS
FIELD CHECKS/REWORK/NO. OF REVISIONS
DATE
BY
REVISIONS

SHEET
C5.0



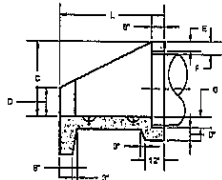
PLAN VIEW



FRONT VIEW

GENERAL NOTES:

1. THE FOLLOWING STANDARD SPECIFICATIONS APPLY: REBAR GRADING 01.05, STRUCTURE 71.00.01, TYP. WELDING- 06.03.04.
2. MINIMUM 2" CONCRETE COVER ON REBAR.
3. CONCRETE CLASS A - 3000 PSI @ 28 DAYS WEAR SURFACE FIN.
4. ALL PICK UP POINTS AND PIPE OPENINGS TO BE DRILLED BY CONTRACTOR WITH STATE APPROVED NON-SHOCK DRILL.
5. TO BE USED IN CONJUNCTION WITH DDH DWG. 204-110-02.
6. 3/4" CHAMFER ON ALL EXPOSED EDGES.

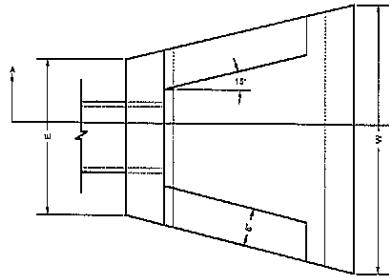


SECTION A-A

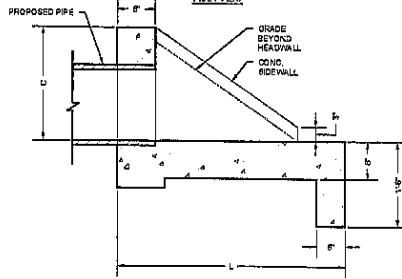
PIPE SIZE	HOLE SIZE	W ¹	L ¹	H ¹	A ¹	B ¹	C ¹	D ¹	E ¹	F ¹	G ¹	H ¹	WT.
30" RCP	48"	110"	80"	72"	94"	50"	48"	10"	10"	14.01'	0"	0"	815 Lbs.
36" RCP	48"	110"	80"	72"	94"	50"	48"	10"	10"	14.01'	0"	0"	10,055 Lbs.
42" RCP	54"	148"	74"	67"	80"	70"	83"	27"	10"	18.01'	0"	0"	20,429 Lbs.
48" RCP	60"	172"	80"	80"	80"	74"	33"	0"	0"	0"	0"	0"	20,429 Lbs.

Note: Size For All Other Pipe Types Will Be Pipe O.D. + 2'-4"

1 30" - 60" PRECAST CONCRETE HEADWALL
SCALE: N.P.S.

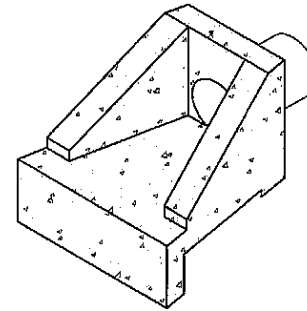


PLAN VIEW



SECTION A-A

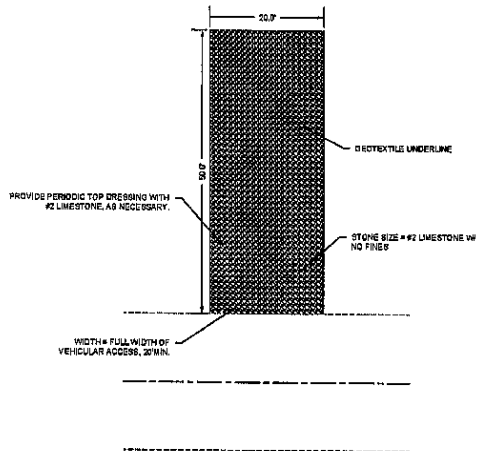
2 SLOPED & FLARED HEADWALL DETAIL
SCALE: 3/4" = 1'-0"



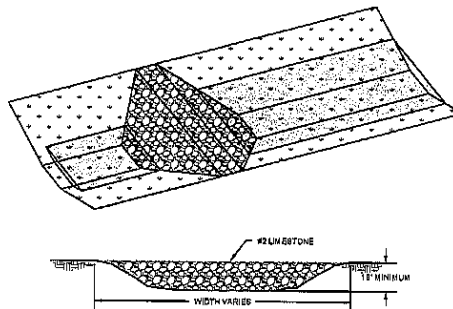
ISOMETRIC VIEW

DIMENSIONS					
PIPE DIA.	C	L	W	B	WEIGHT
12" & 15"	2'-0"	4'-0"	4'-0"	2'-0"	3,040 lbs.
18"	2'-0"	4'-0"	2'-0"	2'-0"	3,788 lbs.
24"	2'-0"	5'-0"	6'-0"	2'-0"	5,470 lbs.

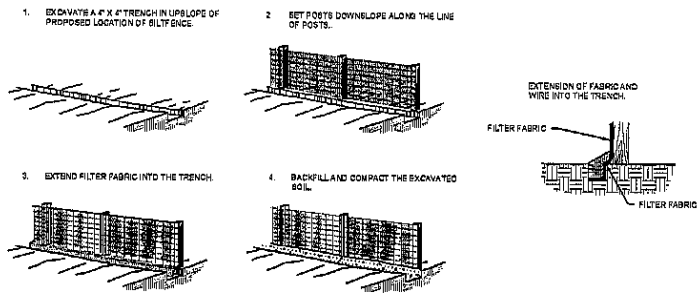
- GENERAL NOTES:**
1. 2" REBAR 12" O.C. EA. W/AY GRADE ED.
 2. 3/4" CHAMFER ON ALL EXPOSED EDGES.
 3. CONCRETE 4000 PSI @ 28 DAYS.
 4. 2" CONCRETE COVER.
 5. CONFORM TO RCDH STD. DRAWING NO. RCDH-020-03.



3 CONSTRUCTION ENTRANCE
SCALE: 1" = 10'



4 ROCK SILT CHECK STRUCTURE
SCALE: N.P.S.



5 SILT FENCE INSTALLATION
SCALE: N.P.S.

PROJECT NO. 1-1809	DRAWN: JML
CHECKED BY: RSM	DATE:
DESCRIPTION:	BY:

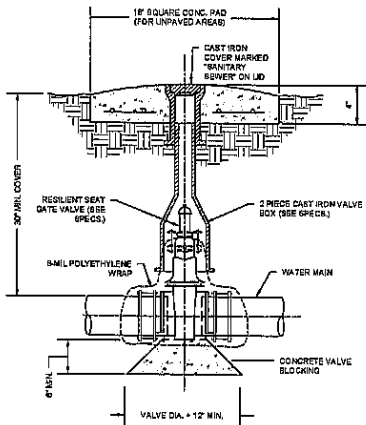
PROJECT NO. 1-1809	DRAWN: JML
CHECKED BY: RSM	DATE:
DESCRIPTION:	BY:

BACON | FARMER | WICKMAN
ENGINEERING & TESTING, INC.
1000 W. 10TH ST. SUITE 100
DENVER, CO 80202
PH: 303.733.1111
WWW.BFW.COM



REVISION	DATE
1. SHEET SUBSTITUTION	08/15/2018
2. SHEET SUBSTITUTION	08/15/2018
3. SHEET SUBSTITUTION	08/15/2018

- NOTE:
1. CONCRETE PAD SHALL BE CONSTRUCTED AROUND ALL MAIN LINE.
 2. CONCRETE PAD SHALL BE CLASS 'A' TYPE PORTLAND CEMENT CONCRETE WITH A WOOD FLOAT FINISH TO OILED EDGE.
 3. THE VALVE BOX SHALL NOT TRANSMIT SHOCK OR STRESS TO THE VALVE.




1 TYPICAL GATE VALVE AND BOX COLLAR
SCALE: 3/4\"/>



PROJECT NO.	DATE	BY	DATE

BACON FARMER WORKMAN
ENGINEERS & DESIGNERS, INC.
BACON FARMER WORKMAN ENGINEERS & DESIGNERS, INC.
1000 W. 10TH STREET, SUITE 100
MIDLAND, TEXAS 79701
PHONE: (806) 733-1111
FACSIMILE: (806) 733-1111
TELETYPE: (806) 733-1111

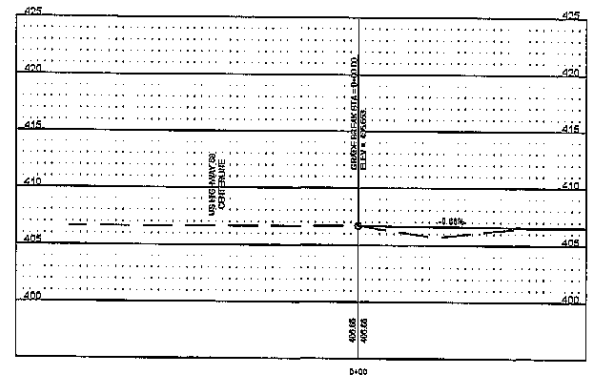
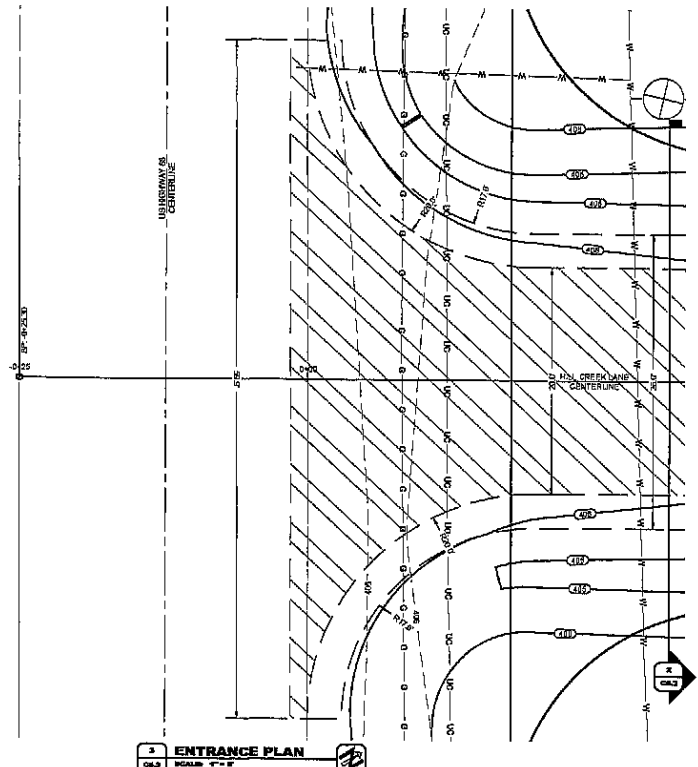
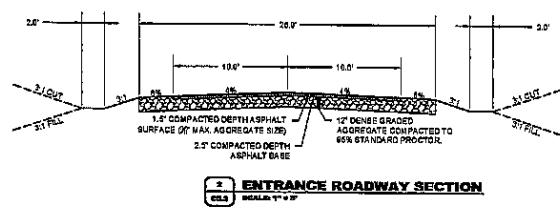
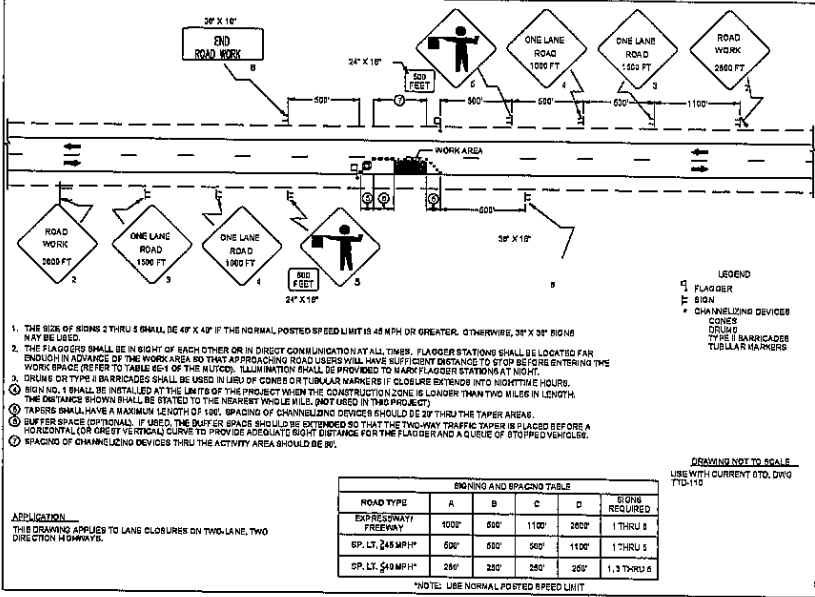


DETAILS

HILL CREEK SUBDIVISION
505 S. HIGHWAY 85
MIDLAND, TX

HILL CREEK SUBDIVISION

SHEET
C5.2



PROJECT NO. 2559	DATE: 2/15/11
DRAWN BY: JSM	CHECKED BY: JSM
FIELD REVISIONS:	DATE:

PROJECT NO. 2559	DATE: 2/15/11
DRAWN BY: JSM	CHECKED BY: JSM
FIELD REVISIONS:	DATE:

BACON FARMER WORKMAN
 ENGINEERING & TESTING, INC.
 4000 W. 10TH AVENUE
 DENVER, CO 80202
 PHONE: 303.751.1111
 FAX: 303.751.1112
 WWW.BACONFARMER.COM



DETAILS
HILL CREEK ENVIRONMENTAL IMPROVEMENT #3 ENTRANCE PLAN
HILL CREEK SUBDIVISION

SHEET
C5.3