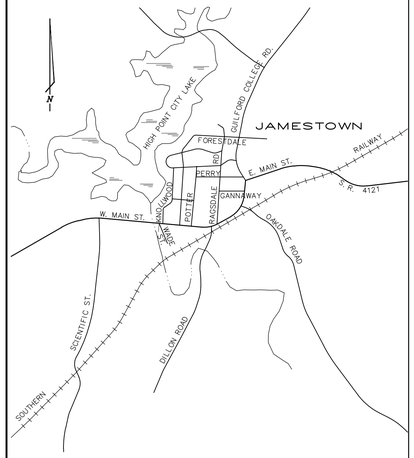


VICINITY MAP
NOT TO SCALE

GENERAL NOTES (APPLY TO ALL CONSTRUCTION PLAN SHEETS)

1. PRIOR TO ANY CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY, THE CONTRACTOR SHALL BE REQUIRED TO CONTACT THE PROPERTY OWNER TO INFORM THEM OF THE LIMITS OF CONSTRUCTION, TIME OF CONSTRUCTION, AND METHOD OF CONSTRUCTION ACTIVITIES ANTICIPATED. A LOG SHALL BE MAINTAINED BY THE CONTRACTOR OF THE DATES AND TIMES OF THESE INDIVIDUAL MEETINGS. THE LOG SHALL BE REVIEWED/VERIFIED BY THE OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR CLAIMS OF DAMAGE RESULTING FROM HIS CONSTRUCTION ACTIVITIES.

2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE DITCHING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, AND BY PERSONAL CONTACTS WITH THE UTILITY COMPANIES, AND LOCATE SUCH UTILITIES IN ADVANCE OF THE TRENCHING OR GRADING OPERATIONS, AND SHALL CONDUCT HIS WORK SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO THE EXISTING STRUCTURES OR UTILITIES. THE CONTRACTOR SHALL BURDEN ALL COSTS ASSOCIATED WITH UTILITY LOCATION AND POWER POLE RELOCATION OR BRACING IF NECESSARY.

3. THE SITE WORK CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES, WHERE INDICATED BY OTHERS ON THE PLANS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR STATE PERSONNEL TO PREVENT SEDIMENTATION FROM OCCURRING OUTSIDE THE PROJECT LIMITS. THE KNOWN LOCATIONS REQUIRING THE USE OF SILT FENCE ARE SHOWN. THE UTILITY CONTRACTOR SHALL PROVIDE SILT FENCE WHERE INDICATED AND ANY ADDITIONAL LOCATIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

4. NO PAYMENT SHALL BE MADE FOR RE-ESTABLISHING CURB AND GUTTER OR PAVEMENT EDGES EXCEPT WHERE INDICATED ON THE PLANS. THE CONTRACTOR SHALL INSPECT THE AREA TO ASSESS THE CONDITION OF THE EXISTING ROADWAY, AND BASED UPON THE DEPTH OF CUT AND DISTANCE OFF THE EDGE OF PAVEMENT, SHALL INCLUDE ANTICIPATED COSTS ASSOCIATED WITH PAVEMENT REPAIR IN THE CONTRACT UNIT PRICE ESTABLISHED FOR PIPE INSTALLATION. PAVEMENT PATCHING AND OVERLAYS FOR THE LIMITS INDICATED ON THE PLANS SHALL BE PAID AT THE ESTABLISHED CONTRACT UNIT PRICE PER SQUARE YARD.

5. TRENCH COMPACTION REQUIREMENTS SHALL BE A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH STANDARD PROCTOR DENSITY TEST IN ALL ROADWAY AND ROADWAY SHOULDER AREAS. REMAINING AREAS SHALL BE 85%.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL SAFETY PERSONNEL, EQUIPMENT, AND DEVICES NECESSARY TO COMPLY WITH CURRENT FEDERAL, STATE, LOCAL AND OSHA SAFETY REGULATIONS. AS INDICATED IN THE SAFETY COMPLIANCE STATEMENT INCLUDED WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHOULD CONSIDER ALL COSTS ASSOCIATED WITH SAFETY COMPLIANCE PERSONNEL, MATERIALS AND PLANS IN THE UNIT PRICE PER LINEAR FOOT ESTABLISHED FOR APPLICABLE PIPE INSTALLATIONS.

7. LOCATIONS OF EXISTING IMPROVEMENTS INDICATED ON THE PLANS ARE FOR GENERAL REFERENCE. EXACT LOCATIONS OF ALL EXISTING IMPROVEMENTS MAY NOT BE INCLUDED OR ACCURATELY REPRESENTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PRIOR TO ESTABLISHING CONTRACT PRICES FOR THE WORK, TO INSPECT THE SITE OF ALL PROPOSED IMPROVEMENTS TO ASSESS SITE CONDITIONS. WHERE IT IS NECESSARY DURING EXCAVATION ACTIVITIES TO REMOVE EXISTING ABOVE OR BELOW GROUND STRUCTURES, INCLUDING BUT NOT LIMITED TO CATCH BASINS, STORM DRAINAGE PIPES, MAIL BOXES, RETAINING WALLS, ETC., REGARDLESS OF WHETHER THEY ARE DEPICTED ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL REMOVE SAID STRUCTURES AND REPLACE THEM IN THEIR ORIGINAL CONDITION, HEIGHT AND ELEVATION. NO DIRECT PAYMENT SHALL BE MADE FOR THEIR REMOVAL/REPLACEMENT. COSTS ASSOCIATED WITH THEIR REPLACEMENT SHALL BE INCLUDED IN THE ESTABLISHED CONTRACT UNIT PRICE FOR PIPE INSTALLATION.

8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY STAGING AREAS TO BE UTILIZED FOR TEMPORARY STORAGE OF EQUIPMENT OR MATERIALS. THE AREA SHALL NOT BE UTILIZED UNTIL WHICH TIME THE EROSION CONTROL PLAN HAS BEEN MODIFIED\APPROVED FOR THE ADDITIONAL DISTURBED AREAS. EROSION CONTROL DEVICES REQUIRED FOR THE AREA SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

9. ALL MATERIALS AND METHODS OF INSTALLATION SHALL CONFORM WITH TOWN OF JAMESTOWN STANDARDS.

10. FINISHED ASPHALT PAVEMENT AND CONCRETE SHALL BE COMPLETED SO THAT NO PONDING OCCURS. IF PONDING DOES OCCUR, THE OWNER HAS THE RIGHT TO REQUIRE REMOVAL AND REPLACEMENT.

N.C.D.O.T. NOTES

1. ALL MATERIALS AND METHODS OF INSTALLATION WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH N.C. DEPT. OF TRANSPORTATION STANDARDS.
2. THE CONTRACTOR SHALL OBTAIN A COPY OF THE N.C. DEPT. OF TRANSPORTATION ENCROACHMENT AGREEMENT AND COMPLY WITH ALL CONDITIONS THERE-IN. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE ESTABLISHED CONTRACT UNIT PRICE OF THE APPLICABLE TIE-IN OR SEWER LINE.
3. THE CONTRACTOR SHALL PROVIDE FOR TRAFFIC CONTROL IN CONFORMANCE WITH CURRENT N.C. DEPT. OF TRANSPORTATION STANDARDS. THE METHOD OF TRAFFIC CONTROL WILL BE REVIEWED BY REPRESENTATIVES OF THE N.C. DEPT. OF TRANSPORTATION PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE RIGHTS-OF-WAY. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE ESTABLISHED CONTRACT UNIT PRICE OF THE SEWER LINE.
4. THE CONTRACTOR SHALL CONTACT THE N.C. DEPT. OF TRANSPORTATION FIELD REPRESENTATIVE, FIVE (5) DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES IN THE RIGHTS-OF-WAY AND REVIEW THE PROPOSED CONSTRUCTION SCHEDULE OF THE WORK.

EROSION CONTROL CONSTRUCTION SCHEDULE

NOTE: THE SITE WORK CONTRACTOR SHALL OBTAIN A COPY OF THE NPDES STORM WATER PERMIT ISSUED WITH THE GRADING PERMIT AND COMPLY WITH ALL CONDITIONS AND REQUIREMENTS INCLUDING MAINTAINING RAIN GAUGE AT THE SITE AT ALL TIMES, AND A LOG BOOK OF ALL MAINTENANCE ACTIVITES PERFORMED ON EROSION CONTROL DEVICES.

1. A COPY OF THE GRADING PLAN AND PERMIT SHALL BE PROVIDED TO THE UTILITY CONTRACTOR.
2. INSTALL REMAINING TEMPORARY EROSION CONTROL DEVICES.
3. FINE GRADE AND SEED AND MULCH ALL DISTURBED AREAS WITHIN CURRENT WORK AREA
4. PROVIDE ALL PERMENANT EROSION CONTROL DEVICES WITHIN CURRENT WORK AREA
5. CONTINUE UTILITY LINE INSTALLATION
6. REMOVE TEMPORARY EROSION CONTROL DEVICES FOLLOWING ESTABLISHMENT OF GROUND COVER
7. REQUEST FINAL INSPECTION FOR EROSION CONTROL ACCEPTANCE

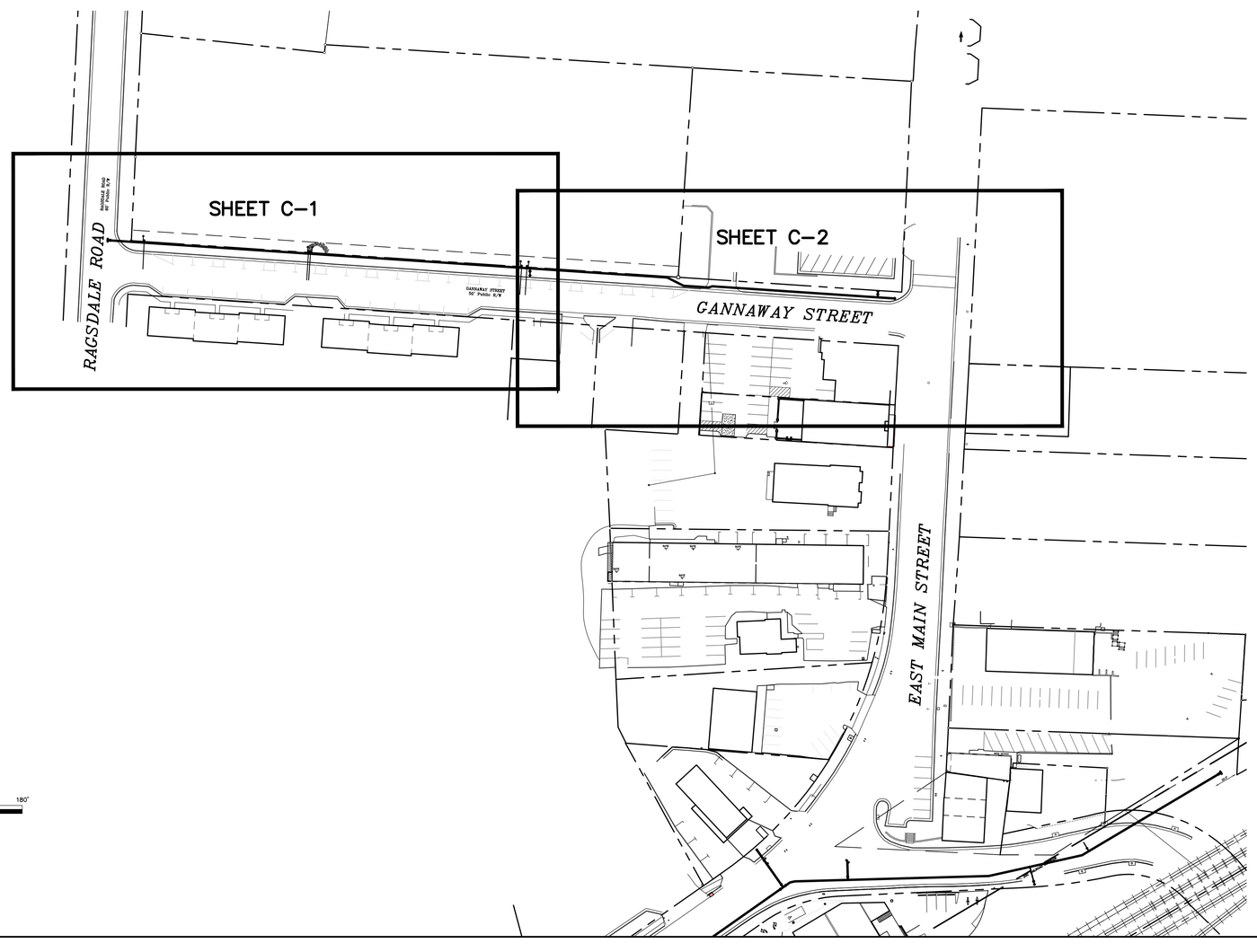
COVER SHEET
FOR
CONSTRUCTION PLANS
6" WATER MAIN INSTALLATION
GANNAWAY STREET
TOWN OF JAMESTOWN

GUILFORD COUNTY, NORTH CAROINA
JOB No. 2016-016
OCTOBER 2016

OWNER:

Settled 1752
JAMESTOWN
NORTH CAROLINA

301 EAST MAIN STREET
P.O. BOX 848
JAMESTOWN, NORTH CAROLINA 27282
TELEPHONE 336 - 454 - 1138 FAX 336 - 886 - 3504



BEFORE YOU DIG!
CALL 811
N.C. ONE-CALL CENTER
IT'S THE LAW!

60' 30' 0 60' 120' 180'
SCALE: 1" = 60'

SHEET INDEX

C-0 COVER SHEET
C-1 GANNAWAY ST. 0+00 - 4+00
C-2 GANNAWAY ST. 4+00 - END
C-3 WATERLINE DETAILS
C-4 WATERLINE & ROADWAY DETAILS
C-5 EROSION CONTROL DETAILS

JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
P.O. BOX 365
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523
C-0626

6" WATERLINE INSTALLATION
TOWN OF JAMESTOWN
GANNAWAY STREET
Guilford County, North Carolina

Town of Jamestown
Drawing Title: C-0

By	Revision

PROJECT NUMBER
2016-016

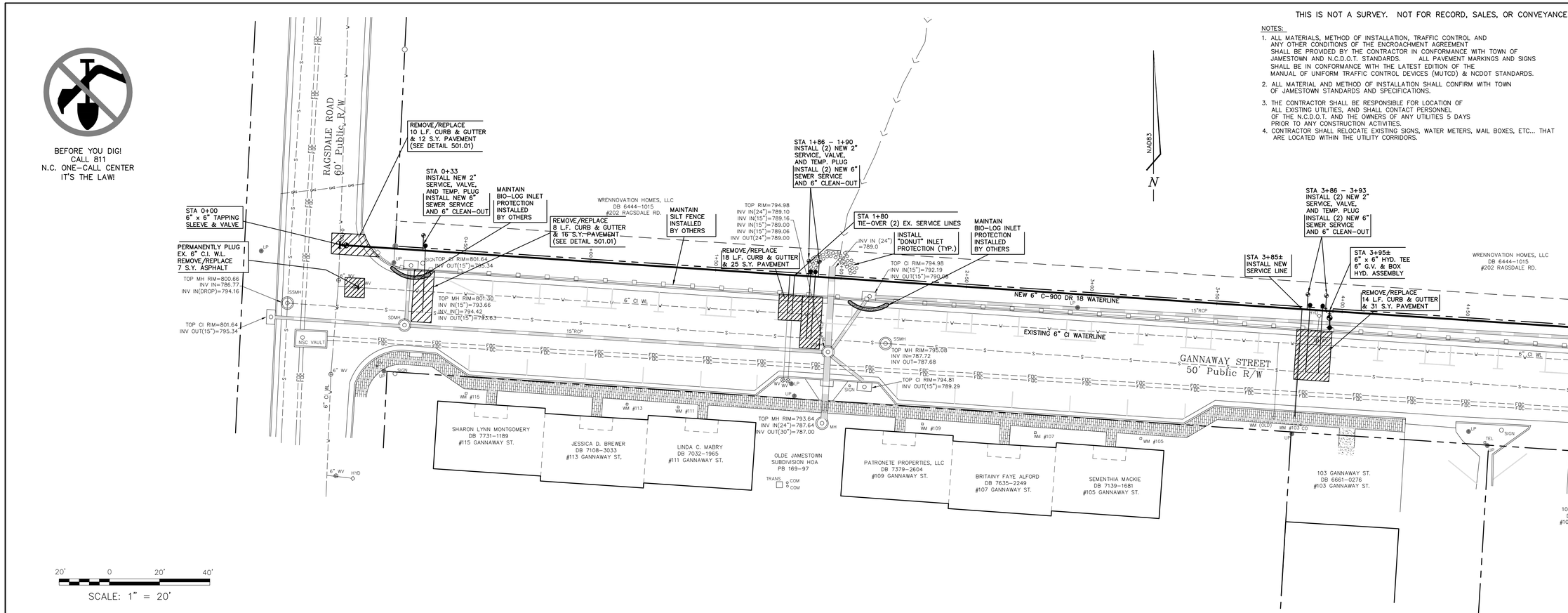
DATE
OCTOBER 2016

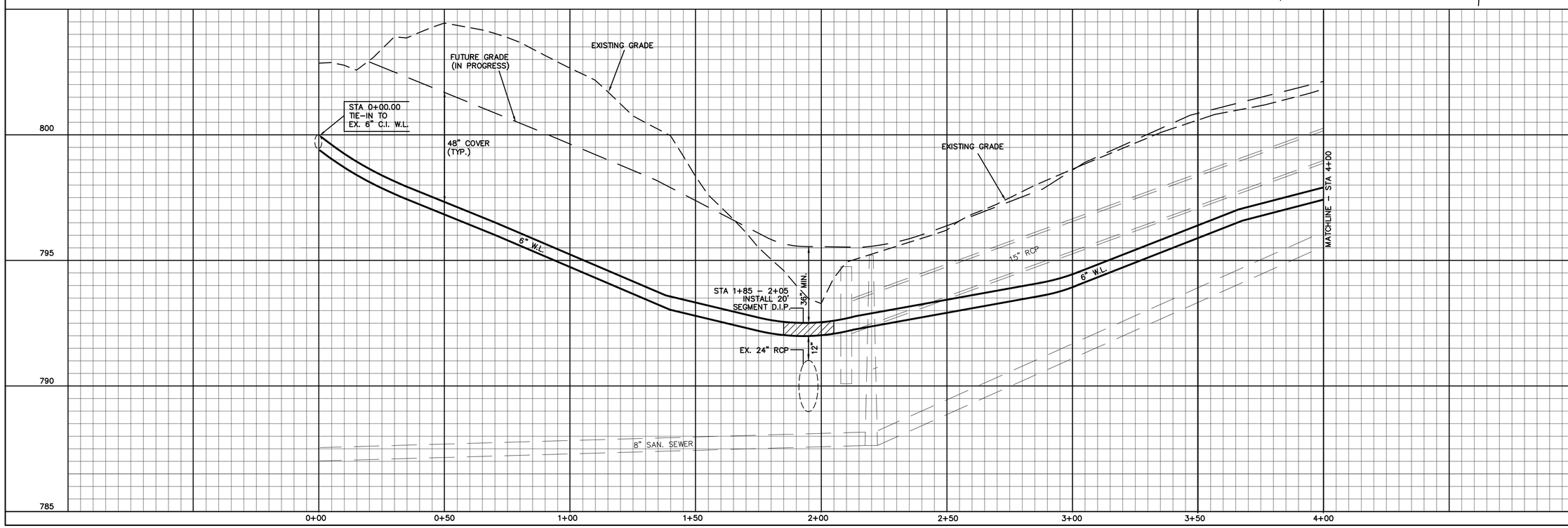
Sheet:
C-0

THIS IS NOT A SURVEY. NOT FOR RECORD, SALES, OR CONVEYANCE.

NOTES:

1. ALL MATERIALS, METHOD OF INSTALLATION, TRAFFIC CONTROL AND ANY OTHER CONDITIONS OF THE ENCROACHMENT AGREEMENT SHALL BE PROVIDED BY THE CONTRACTOR IN CONFORMANCE WITH TOWN OF JAMESTOWN AND N.C.D.O.T. STANDARDS. ALL PAVEMENT MARKINGS AND SIGNS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) & NCDOT STANDARDS.
2. ALL MATERIAL AND METHOD OF INSTALLATION SHALL CONFIRM WITH TOWN OF JAMESTOWN STANDARDS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES, AND SHALL CONTACT PERSONNEL OF THE N.C.D.O.T. AND THE OWNERS OF ANY UTILITIES 5 DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
4. CONTRACTOR SHALL RELOCATE EXISTING SIGNS, WATER METERS, MAIL BOXES, ETC... THAT ARE LOCATED WITHIN THE UTILITY CORRIDORS.





JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
P.O. BOX 1365
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523
C-0626

6" WATERLINE INSTALLATION
TOWN OF JAMESTOWN
GANNAWAY STREET

Guilford County, North Carolina

Town of Jamestown

Drawing Title: C-1

By	Revision

PROJECT NUMBER
2016-016

DATE
OCTOBER 2016

Sheet:
C-1

THIS IS NOT A SURVEY. NOT FOR RECORD, SALES, OR CONVEYANCE.

NOTES:

1. ALL MATERIALS, METHOD OF INSTALLATION, TRAFFIC CONTROL AND ANY OTHER CONDITIONS OF THE ENCROACHMENT AGREEMENT SHALL BE PROVIDED BY THE CONTRACTOR IN CONFORMANCE WITH TOWN OF JAMESTOWN AND N.C.D.O.T. STANDARDS. ALL PAVEMENT MARKINGS AND SIGNS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) & NCDOT STANDARDS.
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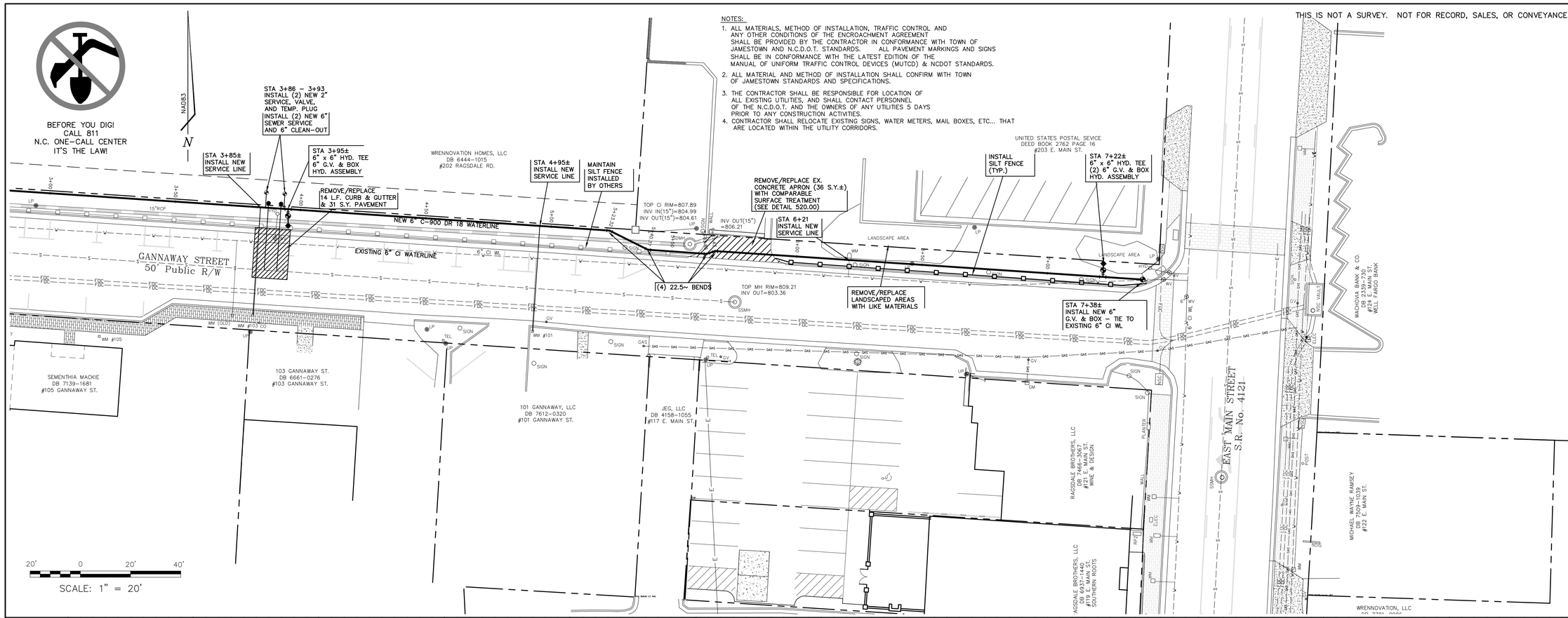
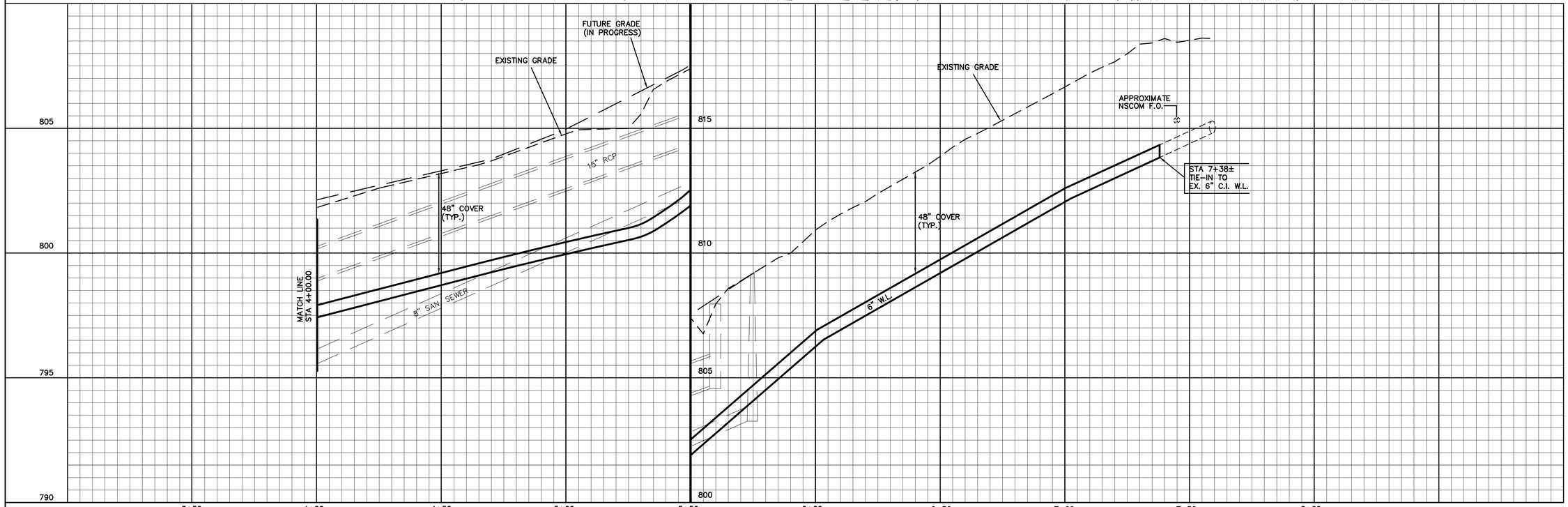




JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
P.O. BOX 2066
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523
C-0626

6" WATERLINE INSTALLATION
TOWN OF JAMESTOWN
GANNAWAY STREET

Guilford County, North Carolina

Town of Jamestown

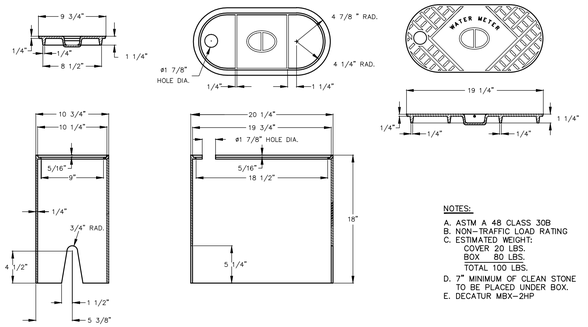
Drawing Title: C-2

By	Revision

PROJECT NUMBER
2016-016

DATE
OCTOBER 2016

Sheet:
C-2



NOTES:

A. ASTM A 48 CLASS 30B
B. NON-TRAFFIC LOAD RATING
C. ESTIMATED WEIGHT:
COVER 20 LBS.
BOX 80 LBS.
TOTAL 100 LBS.
D. 7" MINIMUM OF CLEAN STONE TO BE PLACED UNDER BOX.
E. DECATUR MBX-2HP

Settled 1759 JAMESTOWN NORTH CAROLINA

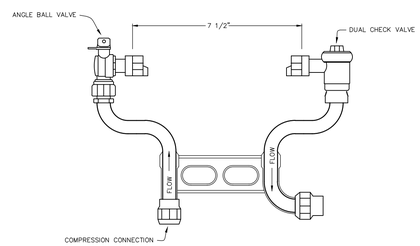
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
3/4" WATER METER BOX
FOR USE WITH 3/4" WATER SERVICES

201.00

SHEET 1 OF 1



NOTES:

APPROVED MANUFACTURERS INCLUDE:
1. MUELLER B2404R-2
2. FORD VBH70 w/PW

Settled 1759 JAMESTOWN NORTH CAROLINA

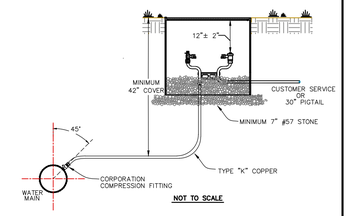
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
TYPICAL 5/8" x 3/4" WATER METER SETTER
FOR 3/4" WATER SERVICE

206.00

SHEET 1 OF 1



NOT TO SCALE

NOTES:

A. THE CITY SERVICE LATERAL SHALL EXTEND PARALLEL FROM THE WATER MAIN TO THE METER SETTER AND MAINTAIN THE SAME COVER AS REQUIRED FOR THE WATER MAIN. THE ONLY EXCEPTION IS IN A CUL-DE-SAC. IN THIS CASE, ONE HORIZONTAL BEND WILL BE ALLOWED. HOWEVER, THE BEND MUST BE FIELD LOCATED AND SHOWN ON THE AS-BUILTS.
B. ALL WATER TAPS SHALL BE WET TAPS.
C. APPROVED CORPORATIONS:
COMPRESSION
3/4": -MUELLER 300 BALL CORPORATION VALVE B-25008 SERIES
-FORD FB1000-3-Q
1": -MUELLER 300 BALL CORPORATION VALVE B-25008 SERIES
-FORD FB1000-4-Q

FLARED (OPTIONAL)
3/4": -MUELLER B-25000 SERIES WITH H-15063 EIGHTH BEND
-FORD FB600-34 WITH LA02-33 EIGHTH BEND
1": -MUELLER B-25000 SERIES WITH H-15063 EIGHTH BEND
-FORD FB600-4 WITH LA02-44 EIGHTH BEND

Settled 1759 JAMESTOWN NORTH CAROLINA

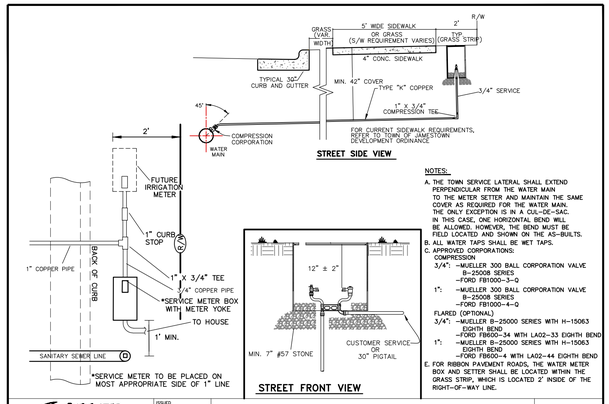
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
3/4" AND 1" SERVICE LINE INSTALLATION
FOR REHABILITATION OF 3/4" AND 1" WATER SERVICES

210.00

SHEET 1 OF 1



NOTES:

A. THE TOWN SERVICE LATERAL SHALL EXTEND PERPENDICULAR FROM THE WATER MAIN TO THE METER SETTER AND MAINTAIN THE SAME COVER AS REQUIRED FOR THE WATER MAIN. THE ONLY EXCEPTION IS IN A CUL-DE-SAC. IN THIS CASE, ONE HORIZONTAL BEND WILL BE ALLOWED. HOWEVER, THE BEND MUST BE FIELD LOCATED AND SHOWN ON THE AS-BUILTS.
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-FORD FB600-34 WITH LA02-33 EIGHTH BEND
1": -MUELLER B-25000 SERIES WITH H-15063 EIGHTH BEND
-FORD FB600-4 WITH LA02-44 EIGHTH BEND
E. FOR RIBBON PAVEMENT ROADS, THE WATER METER BOX AND SETTER SHALL BE LOCATED WITHIN THE GRASS STRIP, WHICH IS LOCATED 2' INSIDE OF THE RIGHT-OF-WAY LINE.

Settled 1759 JAMESTOWN NORTH CAROLINA

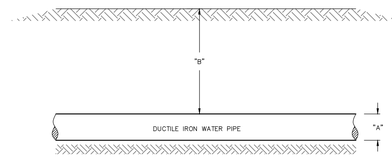
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
3/4" AND 1" SERVICE LINE INSTALLATION (NEW)
FOR 3/4" AND 1" WATER SERVICES

212.00

SHEET 1 OF 1



"A"	"B"
6" – 10" D.I.	48" MIN. COVER
12" – 36" D.I.	54" MIN. COVER

Settled 1759 JAMESTOWN NORTH CAROLINA

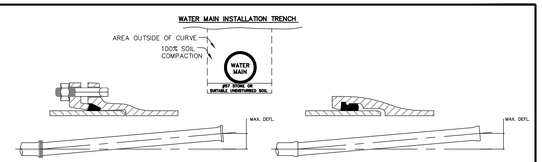
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
WATER PIPE COVER REQUIREMENTS
FOR 6" – 36" D.I. WATER PIPE – PRESSURE CLASS 350

230.00

SHEET 1 OF 1



	MECHANICAL JOINT					PUSH ON JOINT				
		Laying Length					Laying Length			
		18 ft.		20 ft.			18 ft.		20 ft.	
Size	Deflection Angle	Max Defl.	Approx. Radius	Max. Defl.	Approx. Radius	Deflection Angle	Max Defl.	Approx. Radius	Max. Defl.	Approx. Radius
in.	deg.-min.	in.	ft.	in.	ft.	deg.-min.	in.	ft.	in.	ft.
3	8–18	31	125	35	140	5	19	205	21	230
4	8–18	31	125	35	140	5	19	205	21	230
6	7–07	27	145	30	160	5	19	205	21	230
8	5–21	20	195	22	220	5	19	205	21	230
10	5–21	20	195	22	220	5	19	205	21	230
12	5–21	20	195	22	220	5	19	205	21	230
14*	3–35	13.5	285	15	320	3	11	340	12	380
16*	3–35	13.5	285	15	320	3	11	340	12	380

* FOR 14" AND LARGER PUSH ON JOINTS, MAX. DEFLECTION ANGLE MAY BE LARGER THAN SHOWN ABOVE. CONSULT THE MANUFACTURER

Settled 1759 JAMESTOWN NORTH CAROLINA

ISSUED 02-01-07
REVISIONS

APPROVED.....20....

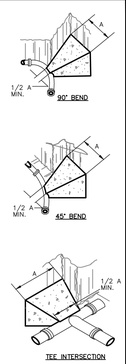
STANDARD DRAWING FOR
MAXIMUM JOINT DEFLECTION
FOR DUCTILE IRON WATER LINE

231.00

SHEET 1 OF 1

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS BASED ON TEST PRESSURE OF 200 PSI

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	FAIRLY DRY CLAY 4,000 LB/SQFT	SOFT CLAY 2,000 LB/SQFT	ORGANIC COUNTRY 1,000 LB/SQFT	DRY CLAY 4,000 LB/SQFT	SAND COMPACTED FROM 2,000 LB/SQFT	SAND CLAY & DRY 4,000 LB/SQFT	ROCK 10,000 LB/SQFT	TIE RODS REQUIRED
6"									
11.25°	1108	1	1	1	1	1	1	1	
22.50°	2207	1	2	2	1	1	1	1	
45°	4328	2	3	3	1	1	2	1	
90°	7996	2	4	5	1	1	2	1	
PLUG	5665	2	3	4	1	1	2	1	2– 1/2" DIA.
8"									
11.25°	1970	1	1	2	1	1	2	1	
22.50°	3922	1	2	3	1	1	3	1	
45°	7694	2	4	5	1	1	5	1	
90°	14215	4	8	9	2	2	8	2	
PLUG	10053	3	5	6	2	2	6	1	2– 5/8" DIA.
12"									
11.25°	4433	2	3	3	1	1	2	1	
22.50°	8826	3	5	6	2	2	3	1	
45°	17312	5	9	11	3	3	5	2	
90°	31983	8	16	19	4	4	8	4	
PLUG	22619	6	12	14	3	3	6	3	4– 3/4" DIA.



NOTES:

1. CONCRETE SHALL BE 3000 PSI.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.
4. USE 6" 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTORS.

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR

Settled 1759 JAMESTOWN NORTH CAROLINA

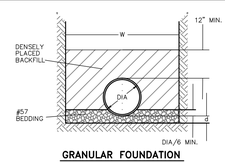
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
THRUST BLOCKING
FOR 6" – 12" WATER LINE

232.00

SHEET 1 OF 1



GRANULAR FOUNDATION
BEDDING CLASS C

DEPTH OF BEDDING MATERIAL BELOW PIPE

D	d (MIN.)
27" & SMALLER	3"
30" TO 60"	4"

TRENCH WIDTH:
MIN W = DIA + 16"
MAX W = THE LESSER OF
DIA + 40" OR
3*DIA

IF CONTRACTOR CHOOSES TO EXCAVATE PAST THE MAX W, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS IN THE EXCAVATION BEYOND THE MAX W LIMITS.

BACKFILLING NOTES ACCORDING TO CURRENT EDITION OF NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES

A EXCAVATION, TRENCHING, AND BACKFILLING SHALL BE DONE ACCORDING TO SECTION 1505.
B. BACKFILLING SHALL ALSO BE IN ACCORDANCE WITH ARTICLE 300-7 AND COMPACTED
TO 95% OF THE AASHTO T99 NCDOT MODIFIED PROCTOR
C. THE LAST 8" OF BACKFILL BELOW THE FINISHED SURFACE OF THE SUBGRADE SHALL
BE COMPACTED TO 100% OF THE AASHTO T99 NCDOT MODIFIED PROCTOR.

BEDDING
A. SUBGRADES SHOULD BE EXCAVATED OR OVER EXCAVATED, IF NECESSARY, SO A UNIFORM FOUNDATION FREE OF PROTRUDING ROCKS MAY BE PROVIDED.

Settled 1759 JAMESTOWN NORTH CAROLINA

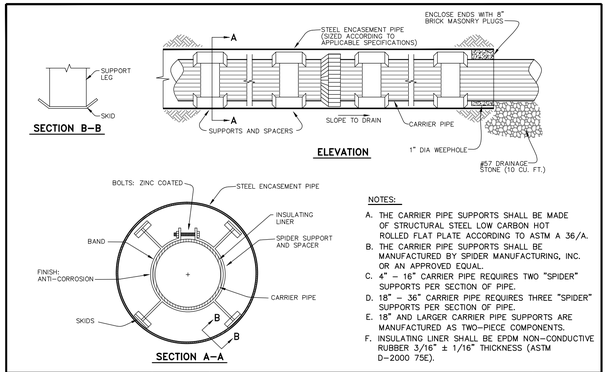
ISSUED
REVISIONS

APPROVED.....20....

STANDARD DRAWING FOR
D.I. PIPE BEDDING & MAXIMUM DEPTH OF COVER

233.00

SHEET 1 OF 1



NOTES:

A. THE CARRIER PIPE SUPPORTS SHALL BE MADE OF STRUCTURAL STEEL LOW CARBON HOT ROLLED FLAT PLATE ACCORDING TO ASTM A 36/A.
B. THE CARRIER PIPE SUPPORTS SHALL BE MANUFACTURED BY SPIDER MANUFACTURING, INC. OR AN APPROVED EQUAL.
C. 4" – 16" CARRIER PIPE REQUIRES TWO "SPIDER" SUPPORTS PER SECTION OF PIPE.
D. 18" – 36" CARRIER PIPE REQUIRES THREE "SPIDER" SUPPORTS PER SECTION OF PIPE.
E. 18" AND LARGER CARRIER PIPE SUPPORTS ARE MANUFACTURED AS TWO-PIECE COMPONENTS.
F. INSULATING LINER SHALL BE EPDM NON-CONDUCTIVE RUBBER 3/16" ± 1/16" THICKNESS (ASTM D-2000 7SE).

Settled 1759 JAMESTOWN NORTH CAROLINA

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REVISIONS

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STANDARD DRAWING FOR
SPIDER SUPPORT
FOR DUCTILE IRON PIPE INSTALLED IN STEEL ENCASEMENT PIPE

234.00

SHEET 1 OF 1

JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523
C-0626

WATERLINE INSTALLATION DETAILS
TOWN OF JAMESTOWN
GANNAWAY STREET
Guilford County, North Carolina

Town of Jamestown

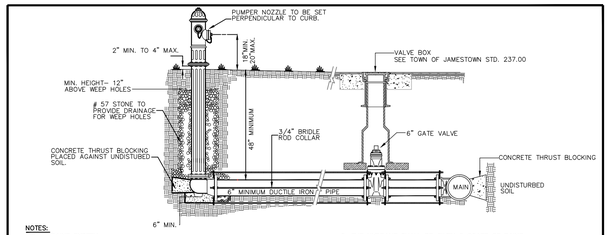
Drawing Title: C-3

By	Revision

PROJECT NUMBER
2016-016

DATE
OCTOBER 2016

Sheet:
C-3



NOTES:

A. RESTRAINT SYSTEM

OPTION 1– HYDRANT LEAD PIPE SHALL BE SECURED BY (FOUR) 3/4" RODS. (SEE SHEET 1 OF 2)

OPTION 2– HYDRANT LEAD PIPE JOINTS SHALL BE RESTRAINED BY USING A RESTRAINED HYDRANT TEE AND USING RESTRAINED JOINT RETAINER GLANDS. (SEE SHEET 2 OF 2)

ALL OPTIONS– CONCRETE THRUST BLOCKING REQUIRED BEHIND THE HYDRANT AND BEHIND THE TEE. BOLTS, NUTS, AND WEEP HOLES TO BE FREE OF CONCRETE.

B. HYDRANT PLACEMENT

1) C&G ROAD– FACE OF HYDRANT SET 12" TO 30" FROM BACK OF CURB.
2) RIBBON PAVEMENT ROAD– CENTER OF HYDRANT PLACED 1' INSIDE RIGHT OF WAY LINE.
3) VARIABLES– HYDRANT SHALL NOT FALL IN THE FLOW–LINE OF THE DITCH.
HYDRANT SHALL BE SET BEYOND THE HINGE POINT OF THE CUT OR FILL LINE OR AS DIRECTED BY THE ENGINEER.

C. THE HYDRANT SHALL BE GIVEN 2 COATS OF PAINT AS FOLLOWS:

	FIRST COAT	FINAL FIELD COAT
BARREL ABOVE GROUND	SAFETY YELLOW DEVON PAINT #4308–9400	SAFETY YELLOW DEVON PAINT #4308–9400
BONNET AND CAPS	WHITE DEVON PAINT #4308–0100	WHITE DEVON PAINT #4308–0100
BARREL BELOW GROUND	TWO COATS OF PITCH TAR VARNISH OR BLACK ASPHALTUM PAINT	———

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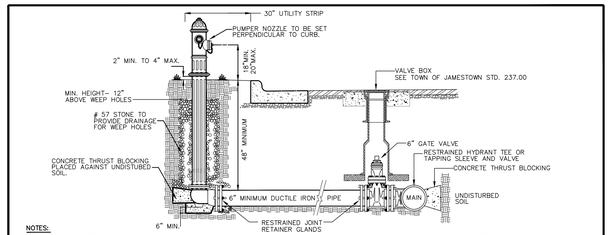
STANDARD DRAWING FOR
FIRE HYDRANT INSTALLATION
FOR 6" 3–WAY FIRE HYDRANTS

235.00

SHEET 1 OF 2



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OPTION 1– HYDRANT LEAD PIPE SHALL BE SECURED BY (FOUR) 3/4" RODS. (SEE SHEET 1 OF 2)

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HYDRANT SHALL BE SET BEYOND THE HINGE POINT OF THE CUT OR FILL LINE OR AS DIRECTED BY THE ENGINEER.

C. THE HYDRANT SHALL BE GIVEN 2 COATS OF PAINT AS FOLLOWS:

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Settled 1779 JAMESTOWN NORTH CAROLINA

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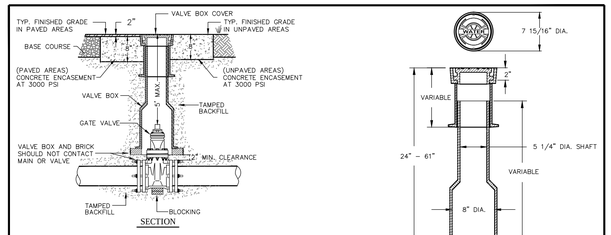
STANDARD DRAWING FOR
FIRE HYDRANT INSTALLATION
FOR 6" 3–WAY FIRE HYDRANTS

235.00

SHEET 2 OF 2



NOTES:

A. THE BASE SHALL BE CENTERED OVER THE VALVE. TWO (2) BRICKS ARE TO BE PLACED AS SHOWN UNDER THE BASE AT 180°.

B. VALVE BOX SHALL CONFORM TO ASTM A48, CLASS 30B.

C. EXTENSIONS:
1. VALVE BOX EXTENSIONS SHALL BE 5" DIAMETER SOIL PIPE.
2. WHEN OPERATING NUT DEPTH EXCEEDS 5'–0" BELOW FINISHED GRADE, PROVIDE EXTENSION STEM WITH 2" SQUARE OPERATING NUT. THE EXTENSION STEM SHALL BE PART OF A MANUFACTURER APPROVED EXTENSION KIT.

D. APPROVED MANUFACTURERS/MODELS INCLUDE:
1. CHARLOTTE– MODEL # 562–A.
2. TYLER– SERIES 6855, MODEL # 562–A, 564–A, AND 664–A.
3. EJW– 8555 SERIES, MODEL # 562–A, 564–A, AND 664–A.

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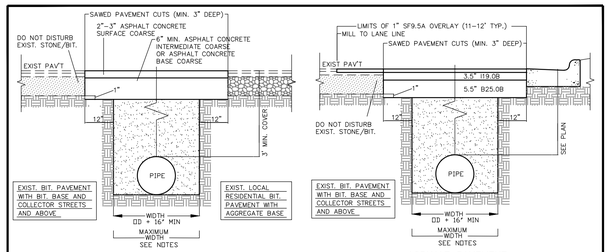
STANDARD DRAWING FOR
WATER VALVE BOX
FOR ROADWAY AND UNPAVED AREAS

237.00

SHEET 1 OF 1



ASPHALT PAVEMENT

ASPHALT PAVEMENT

NOTES:

A. MAXIMUM WIDTH AND BEDDING REQUIREMENTS WILL VARY BASED ON THE PIPE MATERIAL TYPE. TO DETERMINE, SEE THE BEDDING STANDARDS FOR THE VARIOUS PIPE MATERIALS.

B. WHERE CONCRETE PAVEMENT IS OVERLAID WITH ASPHALT, THE PATCH MAY BE TREATED AS AN ASPHALT EXISTING ROADWAY, WITH THE APPROVAL OF THE ENGINEER.

C. FOR A RESIDENTIAL BITUMINOUS PAVEMENT WITH AN AGGREGATE BASE, THE TOP OF THE PATCH MAY BE FULL DEPTH ASPHALT WITH THE APPROVAL OF THE ENGINEER.

BACKFILLING NOTES ACCORDING TO CURRENT EDITION OF NCDOT STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES:

D. EXCAVATION, TRENCHING, AND BACKFILLING SHALL BE DONE ACCORDING TO SECTION 150S. (WATER & SEWER).

E. BACKFILLING SHALL ALSO BE IN ACCORDANCE WITH ARTICLE 300–7 AND COMPACTED TO 95% OF THE AASHTO T99 NCDOT MODIFIED PROCTOR.

F. THE LAST 8" OF BACKFILL BELOW THE FINISHED SURFACE OF THE SUBGRADE SHALL BE COMPACTED TO 100% OF THE AASHTO T99 NCDOT MODIFIED PROCTOR.

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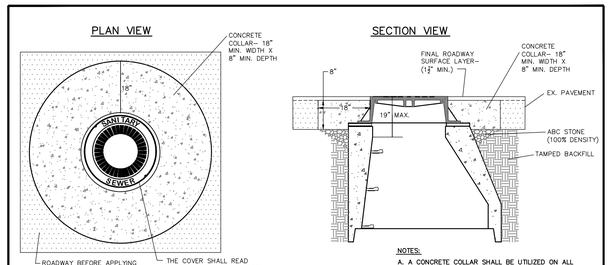
MODIFIED DRAWING FOR
PAVEMENT REPAIR
FOR PIPE/UTILITY CONSTRUCTION

501.00

SHEET 1 OF 1



NOTES:

A. A CONCRETE COLLAR SHALL BE UTILIZED ON ALL ROADWAY STRUCTURE ADJUSTMENTS.

B. CONCRETE SHALL BE A MINIMUM OF 4000 PSI HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE.

C. THE CONCRETE COLLAR SHALL BE POURED IN ONE CONTINOUS LIFT.

D. THE RING CASTING SHALL BE SET TO BE PARALLEL TO THE PAVEMENT SLOPE. THE RING CASTING SHALL BE SET TO BE LEVEL WITH THE FINAL ROADWAY SURFACE.

E. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.

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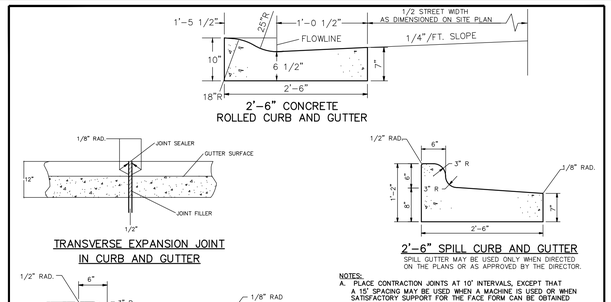
STANDARD DRAWING FOR
CONCRETE COLLAR FOR ROADWAY STRUCTURES
FOR MANHOLE & OTHER CASTINGS IN PAVEMENT

502.00

SHEET 1 OF 1



SPILL GUTTER MAY BE USED ONLY WHEN DIRECTED ON THE PLANS OR AS APPROVED BY THE DIRECTOR.

NOTES:

A. PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.

B. JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.

C. CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. CONSTRUCT NON–TEMPLATE FORMED JOINTS A MIN. OF 1 ½" DEEP.

D. FILL ALL CONSTRUCTION JOINTS WITH JOINT FILLER AND SEALER.

E. SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

F. CONSTRUCT THE CONCRETE IN ACCORDANCE WITH SECTION 825 AND SECTION 846 OF THE MOST RECENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES.

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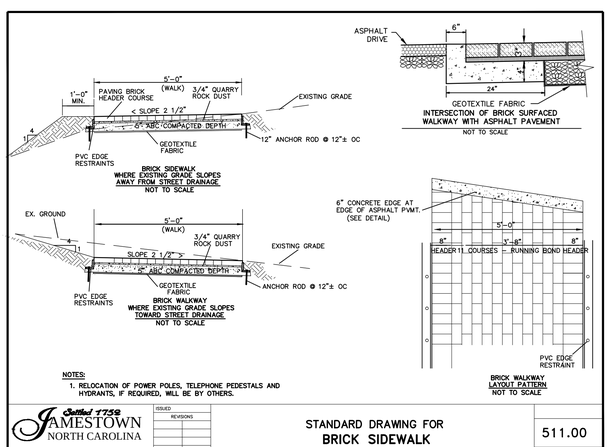
STANDARD DRAWING FOR
2'–6" STANDARD CURB AND GUTTER &
2'–6" SPILL CURB AND GUTTER

503.00

SHEET 1 OF 1



NOTES:

1. RELOCATION OF POWER POLES, TELEPHONE PEDESTALS AND HYDRANTS, IF REQUIRED, WILL BE BY OTHERS.

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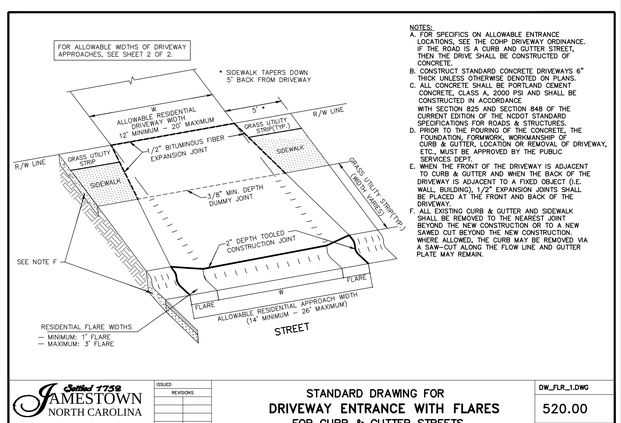
STANDARD DRAWING FOR
BRICK SIDEWALK

511.00

SHEET 1 OF 1



NOTES:

A. FOR SPECIFICS ON ALLOWABLE ENTRANCE LOCATIONS, SEE THE COHP DRIVEWAY ORDINANCE. IF THE ROAD IS A CURB AND GUTTER STREET, THEN THE DRIVE SHALL BE CONSTRUCTED OF CONCRETE.

B. CONSTRUCT STANDARD CONCRETE DRIVEWAYS 6" THICK UNLESS OTHERWISE DENOTED ON PLANS.

C. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE, CLASS A, 2000 PSI AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 825 AND SECTION 848 OF THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES.

D. PRIOR TO THE POURING OF THE CONCRETE, THE FOUNDATION, FORMWORK, WORKMANSHIP OF CURB & GUTTER, LOCATION OR REMOVAL OF DRIVEWAY, ETC., MUST BE APPROVED BY THE PUBLIC SERVICES DEPT.

E. WHEN THE FRONT OF THE DRIVEWAY IS ADJACENT TO CURB & GUTTER AND WHEN THE BACK OF THE DRIVEWAY IS ADJACENT TO A FIXED OBJECT (I.E. WALL, BUILDING), 1/2" EXPANSION JOINTS SHALL BE PLACED AT THE FRONT AND BACK OF THE DRIVEWAY.

F. ALL EXISTING CURB & GUTTER AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE NEW CONSTRUCTION OR TO A NEW SAWED CUT BEYOND THE NEW CONSTRUCTION. WHERE ALLOWED, THE CURB MAY BE REMOVED VIA A SAW–CUT ALONG THE FLOW LINE AND GUTTER PLATE MAY REMAIN.

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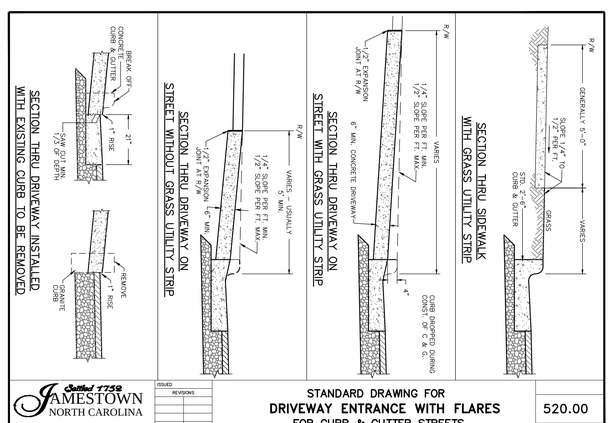
STANDARD DRAWING FOR
DRIVEWAY ENTRANCE WITH FLARES
FOR CURB & GUTTER STREETS

DW_FLR_1.DWG

520.00

SHEET 1 OF 2



Settled 1779 JAMESTOWN NORTH CAROLINA

ISSUED / REVISIONS

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STANDARD DRAWING FOR
DRIVEWAY ENTRANCE WITH FLARES
FOR CURB & GUTTER STREETS

520.00

SHEET 2 OF 2

JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
P.O. BOX 1007
JAMESTOWN, N.C. 27282
Telephone (336) 886–5523
C–0626

WATERLINE INSTALLATION DETAILS
TOWN OF JAMESTOWN
GANNAWAY STREET

Town of Jamestown — Guilford County, North Carolina

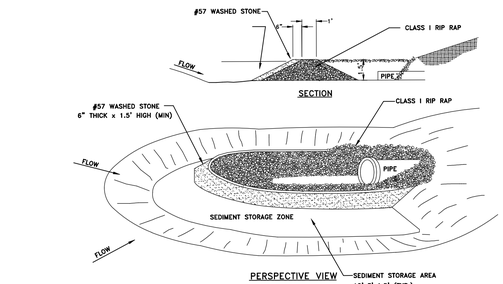
Drawing Title: C–4

By	Revision

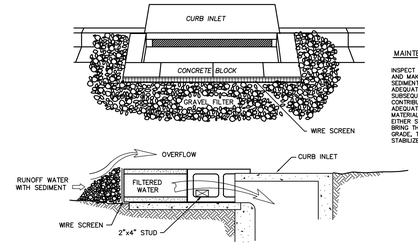
PROJECT NUMBER
2016-016

DATE
OCTOBER 2016

Sheet:
C–4



DONUT INLET PROTECTION
NTS



BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER

NOT TO SCALE

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2 x 4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENINGS OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL, 3/4 - 1/2 INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.
4. IF ONLY STONE AND GRAVEL ARE USED, KEEP THE SLOPE TOWARD THE INLET NO STEEPER THAN 3:1. LEAVE THE MINIMUM 1 FT. WIDE LEVEL STONE AREA BETWEEN THE STRUCTURE AND AROUND THE INLET TO PREVENT GRAVEL FROM ENTERING INLET. ON THE SLOPE AWAY FROM THE INLET, USE 1/2 - 3/4 INCH GRAVEL (NCDOT #57 WASHED STONE) AT A MINIMUM THICKNESS OF 1 FT.

MAINTENANCE

INSPECT THE BARRIER AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. STABILIZE ALL DISTURBED AREAS.

PERMANENT SEEDING

DEFINITION
SEEDING DISTURBED AREAS WITH PERENNIAL GRASSES AND (OR) LEGUMES TO PROVIDE A PERMANENT VEGETATIVE COVER TO LESSEN RUNOFF AND SOIL EROSION.

PURPOSE
TO LESSEN SOIL EROSION AND PERMANENTLY STABILIZE DISTURBED AREAS CREATED BY GRADING OF CONSTRUCTION SITES.

CONDITIONS WHERE PRACTICE APPLIES
ALL BARE SOIL AREAS ON CONSTRUCTION SITES WHICH ARE NOT COVERED BY STRUCTURES OR OTHER EROSION CONTROL DEVICES.

PREPARATION
PREPARE SEEDBED BY SPREADING 3 - 6 INCHES OF TOPSOIL OVER AREA TO BE SEEDED. REMOVE ALL STONES, BOULDERS, STUMPS OR DEBRIS FROM THE SURFACE WHICH WOULD PROHIBIT GERMINATION OR PLANT GROWTH.
INCORPORATE INTO THE SOIL 800 TO 1,000 POUNDS OF 10-10-10 FERTILIZER PLUS 500 POUNDS OF TWENTY PERCENT (20%) SUPERPHOSPHATE PER ACRE AND TWO TONS OF DOLOMITIC LIME PER ACRE UNLESS SOIL TESTS INDICATE THAT A LOWER RATE OF LIME CAN BE USED.
MULCH AFTER SEEDING WITH 1.5 TONS OF GRAIN STRAW PER ACRE AND EITHER CRIMP STRAW INTO SOIL OR TACK WITH LIQUID ASPHALT AT 400 GALLONS PER ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS PER ACRE.
SELECT SEEDING MIXTURE AND BEST PLANTING DATES FROM TABLE 13.

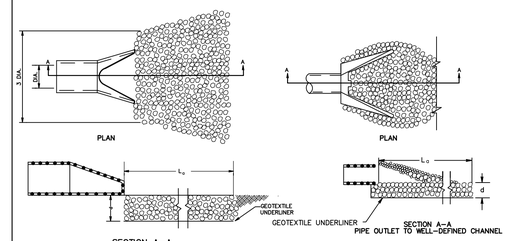
TABLE 13
PERMANENT SEEDINGS

PLANTS & MIXTURE	PLANTING RATE/ACRE	PLANTING DATES
TALL FESCUE (LOW MAINTENANCE)	100-150 LBS.	AUG. 15 - OCT. 15 FEB. 15 - MAY 1
TALL FESCUE WATERWAYS AND LAWNS (HIGH MAINT.)	200-250 LBS.	AUG. 15 - OCT. 15 FEB. 15 - MAY 1
BLEND OF TWO TURF-TYPE TALL FESCUES (90%) AND TWO OR MORE IMPROVED KENTUCKY BLUEGRASS VARIETIES (10%) (HIGH MAINTENANCE)	200-250 LBS.	AUG. 15 - OCT. 15 FEB. 15 - MAY 1
TALL FESCUE AND KOBE OR KOREAN LESPEDEZA[1]	100 LBS. AND 20-25 LBS.	FEB. 15 - MAY 1 AUG. 15 - OCT. 15
TALL FESCUE AND SERICEA LESPEDEZA	50 LBS. 60 LBS.	NOV. 1 - FEB. 1 (UNSCARIFIED)
TALL FESCUE AND GERMAN MILLET OR SUDANGRASS[2]	60 LBS. AND 30 LBS.	JULY AND AUGUST
TALL FESCUE AND RYEGRASS[2]	70 LBS. AND 25 LBS.	NOV. 1 - JAN. 30
COMMON BERMUDAGRASS	8 LBS. (HULLED) 15-20 LBS. (UNHULLED)	APRIL 15 - JUNE 30 FEB. 1 - MARCH 30

[1] FOR SPRING SEEDINGS, USE SCARIFIED LESPEDEZA SEED. FOR LATE FALL AND WINTER SEEDINGS, USE UNSCARIFIED SEED.

[2] ANNUALS SUCH AS MILLET, SUDANGRASS AND RYEGRAIN MUST BE KEPT AT 10-12" MAXIMUM HEIGHT.

RIP-RAP APRON ENERGY DISSIPATOR FOR STORMWATER OUTLET PROTECTION



SECTION A-A
PIPE OUTLET TO FLAT AREA
WITH NO DEFINED CHANNEL

NOTES

1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP OR CONCRETE
2. L_a IS THE LENGTH OF THE RIPRAP APRON.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
4. DIMENSIONS AND SPECIFICATIONS MUST BE DETERMINED BY APPROPRIATE ENGINEERING DESIGN METHOD.

RIP-RAP OUTLET OR PLUNGE POOL

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIP-RAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIP-RAP THICKNESS.

2. THE RIP-RAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS ON THE PLANS.

3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM DAMAGE DURING OR TEARING DURING INSTALLATION. REAPIR ANY DAMAGES BY REMOVING THE RIP-RAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.

4. RIP-RAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIP-RAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIP-RAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HAR, ANGULAR, HIGHLY WEATHER RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIP-RAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RCEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

INSPECT RIP-RAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP-RAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

SILT FENCE

1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 18 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURES.
3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TOAVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST.
4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, OR TIE WIRES. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH.
5. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FT. APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND TO A MINIMUM OF 18 INCHES.
6. EXTRA STRENGTH FILTER FABRIC WITH A 6 FT. POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. STAPLE OR WIRE THE FABRIC DIRECTLY TO POSTS.
7. EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
8. BACKFILL THE TRENCH WITH COMPACTED SOIL OR GRAVEL PLACED OVER THE FILTER FABRIC.
9. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

MAINTENANCE

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

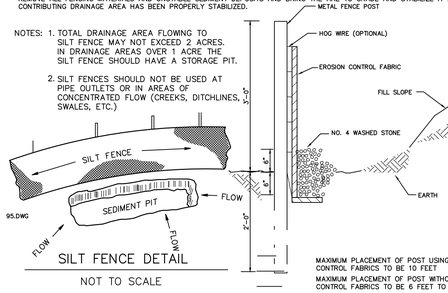
SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR ABECOME INEFFECTIVE, REPLACE IT PROMPTLY. REPLACE BURLAP EVERY 60 DAYS.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE ARE TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

NOTES: 1. TOTAL DRAINAGE AREA FLOWNG TO SILT FENCE MAY NOT EXCEED 2 ACRES. IN DRAINAGE AREAS OVER 1 ACRE THE SILT FENCE SHOULD HAVE A STORAGE PIT.

2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (CREEKS, DITCHLINES, SWALES, ETC.)



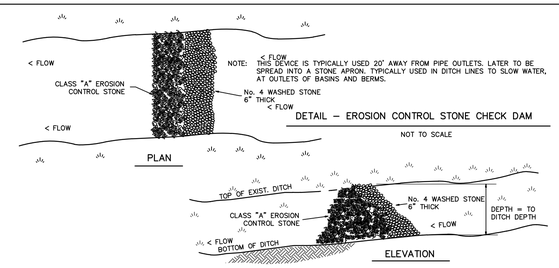
SILT FENCE DETAIL

NOT TO SCALE

MAXIMUM PLACEMENT OF POST USING HOG WIRE WITH APPROVED EROSION CONTROL FABRICS TO BE 10 FEET

MAXIMUM PLACEMENT OF POST WITHOUT HOG WIRE USING APPROVED EROSION CONTROL FABRICS TO BE 6 FEET TO 8 FEET APART

POST METAL T-POST 5 FEET OR 6 FEET IN HEIGHT DEPENDING ON FILL SLOPE.
FABRIC 36 INCHES IN WIDTH (MUST MEET ENGINEERS SPECIFICATIONS FOR EROSION CONTROL).
STONE NO. 4 WASHED STONE TO BE PLACED 12 INCHES DEEP AT SILT FENCE.



NOTE: THIS DEVICE IS TYPICALLY USED 20' AWAY FROM PIPE OUTLETS. LATER TO BE SPREAD INTO A STONE APRON. TYPICALLY USED IN DITCH LINES TO SLOW WATER, AT OUTLETS OF BASINS AND BERMS.

DETAIL - EROSION CONTROL STONE CHECK DAM

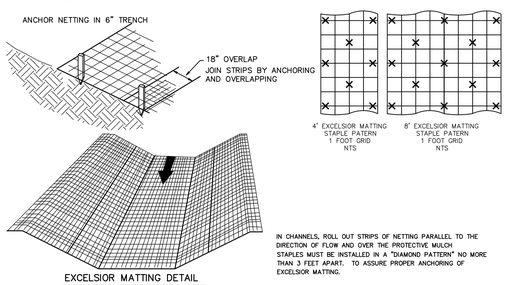
NOT TO SCALE

EXCELSIOR MATTING (STANDARD AND HIGH VELOCITY)

1. APPLY LIME, FERTILIZER AND SEED BEFORE LAYING THE NET OR MAT. IF OPEN-WEAVE NETTING IS USED, LIME MAY BE INCORPORATED BEFORE INSTALLING THE NET AND FERTILIZER AND SEED SPRAYED ON AFTERWARD.
2. START LAYING THE NET OR MAT AT THE TOP OF A CHANNEL OR SLOPE AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY ON THE GROUND. DO NOT STRETCH THE NETTING TIGHT. DO NOT STRETCH.
3. TO SECURE THE NET, BURY THE UPSLOPE END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP, COVER WITH SOIL AND TAMP FIRMLY. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FEET AROUND THE EDGES AND BOTTOM. WHERE 2 STRIPS OF NET ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH STRIP OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FEET. DO NOT STRETCH THE NET WHEN APPLYING STAPLES.
4. TO JOIN TWO STRIPS, CUT A TRENCH TO ANCHOR THE END OF THE NEW NET. OVERLAP END OF THE PREVIOUS ROLL 18 INCHES, AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT.

MAINTENANCE

INSPECT ALL MATTING PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR FILL EROSION, DISLOCATION, OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MATTING. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MATTING. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.



IN CHANNELS, ROLL OUT STRIPS OF NETTING PARALLEL TO THE DIRECTION OF FLOW AND OVER THE PROTECTIVE MULCH STAPLES MUST BE INSTALLED IN A "DIAMOND PATTERN" NO MORE THAN 3 FEET APART. TO ASSURE PROPER ANCHORING OF EXCELSIOR MATTING.

EXCELSIOR MATTING DETAIL

NOT TO SCALE

TEMPORARY SEEDING

DEFINITION
SEEDING DISTURBED AREAS WITH ANNUAL GRASSES OR LEGUMES TO PROVIDE TEMPORARY GROUND COVER TO LESSEN SOIL EROSION.

PURPOSE
TO TEMPORARILY STABILIZE GRADED CUT AND FILL SLOPES THAT CANNOT BE SEEDED WITH PERMANENT VEGETATION WITHIN THIRTY DAYS AFTER COMPLETION.
TO TEMPORARILY STABILIZE GRADED AREAS OF BARE SOIL WHERE PERMANENT VEGETATIVE COVER IS NOT NEEDED OR WHERE GRADING HAS NOT BEEN COMPLETED AND PERMANENT SEEDING WILL BE DONE LATER.

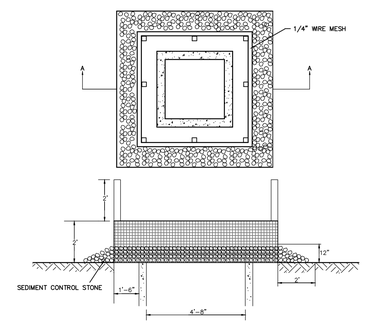
CONDITIONS WHERE PRACTICE APPLIES
WHERE BARE SOIL HAS BEEN EXPOSED BY GRADING, AND VEGETATIVE COVER IS NEEDED FOR ONE YEAR OR LESS. MAY INCLUDE SUCH AREAS AS TEMPORARY SEDIMENT POND, DIVERSIONS, SOIL STOCKPILES, BUILDING PADS, ROUGH-GRADED ROAD BANKS, ETC. IT IS ALSO USED TO PROVIDE A TEMPORARY PERIMETER BUFFER.

PREPARATION
PREPARE SEEDBED BY RIPPING, CHISELING, HARROWING, TO A DEPTH OF AT LEAST SIX INCHES SO AS TO PRODUCE A LOOSE, FRIABLE SURFACE. INCORPORATE 750-1,000 POUNDS 10-10-10 FERTILIZER AND UP TO TWO TONS OF DOLOMITIC LIME PER ACRE (NOTE: LIME MAY NOT BE NEEDED IF A SOIL INDICATED A pH OF 6.5 OR HIGHER). MULCHING IS REQUIRED ACCORDING TO THE SAME SPECIFICATIONS AS FOR PERMANENT SEEDING UNLESS WAIVED BY SOIL SCIENTIST. SELECT SEEDING MIXTURE AND BEST PLANTING DATES FROM TABLE 12.

TABLE 12
TEMPORARY SEEDINGS

SEEDING MIXTURES	SEEDING RATES (LB/ACRE)	PLANTING DATES
RYE GRAIN AND KOBE LESPEDEZA	120 LBS. 50 LBS.	JAN. 1 - MAY 1
GERMAN MILLET OR SUDAN GRASS	40-50 LBS.	MAY 1 - AUG. 15
RYE (GRAIN) (MAY SUBSTITUTE OATS BEFORE OCT. 1 OR WHEAT FROM OCT. 1-NOV. 15)	120 LBS.	AUG. 15 - DEC. 30
ANNUAL RYEGRASS	40 LBS.	AUG. 15 - NOV. 30
WEEPING LOVEGRASS[1]	5 LBS.	MAY 1 - AUG. 15

[1] WEEPING LOVEGRASS IS A PERENNIAL GRASS BUT IS INCLUDED HERE BECAUSE OF ITS ADAPTABILITY TO POOR SOIL CONDITIONS AND DROUGHTY SITES.



YARD INLET PROTECTION

NOT TO SCALE

NOTE: SEDIMENT CONTROL STONE SHALL BE No. 5 OR 57
WIRE MESH SHALL BE HARDWARE CLOTH 23 GAGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.
TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERISION POINT.

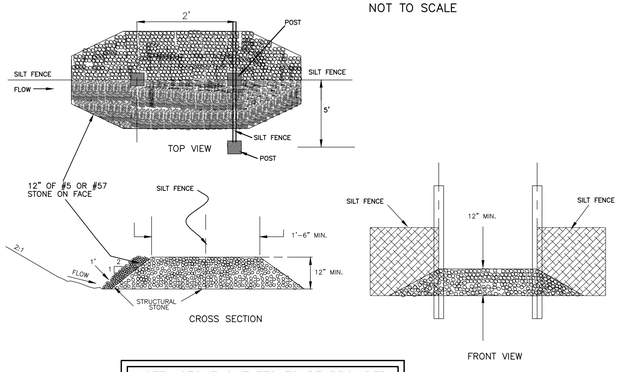
NOTE:

STRUCTURAL STONE SHALL BE (CLASS "B") STONE FOR EROSION CONTROL PURPOSES.

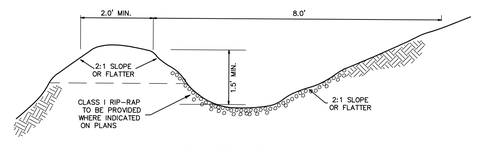
SEDIMENT CONTROL STONE SHALL BE NO. 5 OR NO. 57 STONE.

SILT FENCE WITH STONE OUTLET DETAIL

NOT TO SCALE



NOTE: STONE OUTLETS TO BE PROVIDED AT INTERVALS OF 50' OR LESS



TYPICAL BERM CROSS SECTION

NOT TO SCALE

BERM/SWALE

1. REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS AND OTHER OBJECTIONAL MATERIAL.
2. ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
3. ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
4. PROVIDE SUFFICENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.

MAINTENANCE

INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINVALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.

NOTE:

STEEPER GRADES ALONG BERM MAY REQUIRE VEGETATIVE OR MECHANICAL STABILIZATION. EXCAVATED MATERIAL SHOULD BE PLACED AND COMPACTED ON LOWER SIDE OF DIVERSION AND SEEDED AS SOON AS POSSIBLE. TEMPORARY BERMS AND/OR DIVERSIONS SHOULD BE SIZED TO HANDLE A 10-YEAR STORM. BERMS WITH A DRAINAGE AREA OVER 5 ACRES SHOULD BE CALCULATED INDIVIDUALLY.

JAMESTOWN ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
117 E. MAIN STREET
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523
C-0626

EROSION CONTROL DETAILS
TOWN OF JAMESTOWN
GANNAWAY STREET

Guilford County, North Carolina

Town of Jamestown

Drawing Title: C-5

By	Revision

PROJECT NUMBER
2016-016

DATE
OCTOBER 2016

Sheet:
C-5