



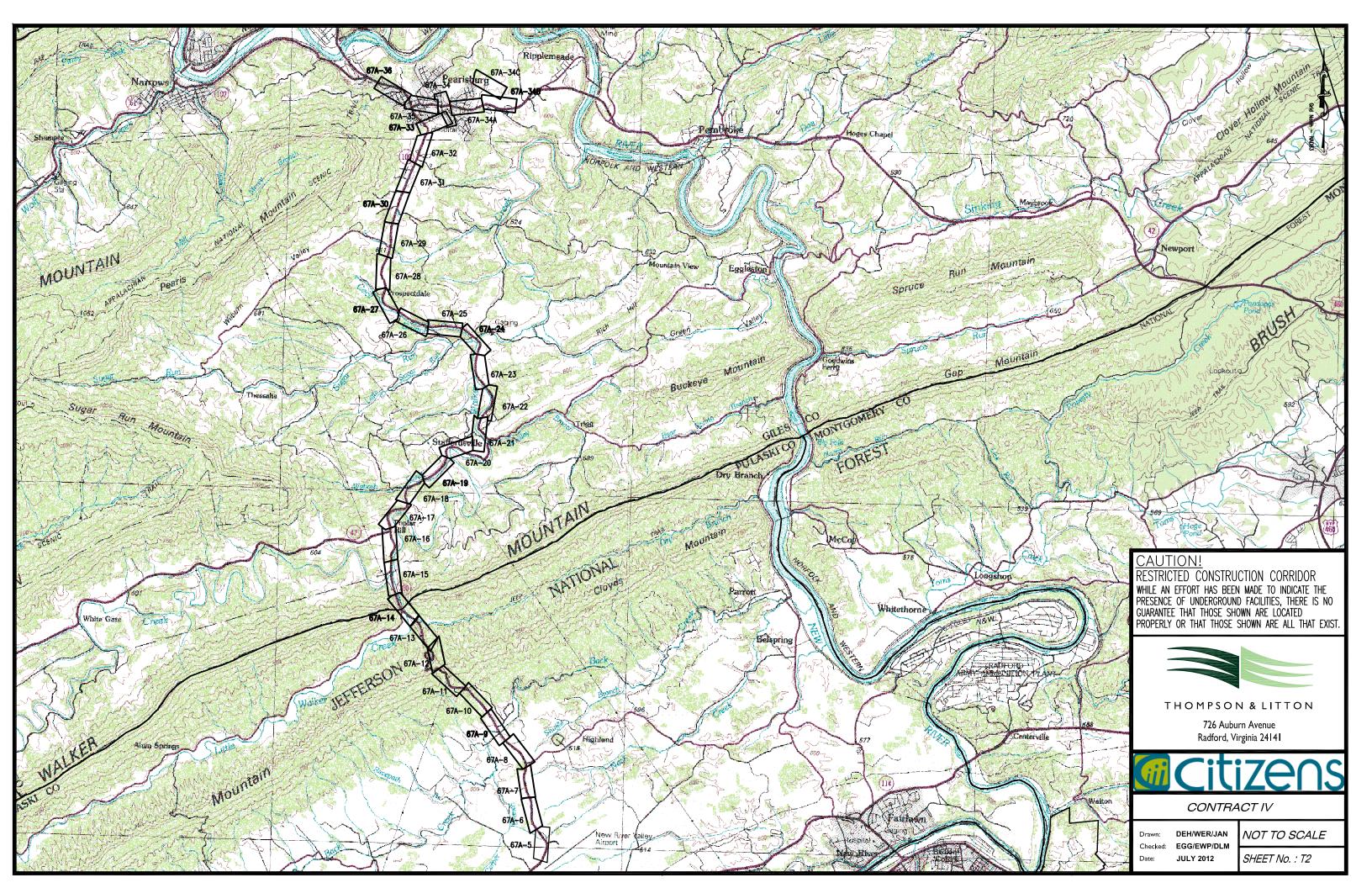
726 Auburn Avenue Radford, Virginia 24141

# CITIZENS TELEPHONE COOPERATIVE NRV - ROAN PROJECT (CONTRACT IV)

CITIZENS
P.O. BOX 137
220 WEBBS MILL ROAD
FLOYD, VIRGINIA 24091
(540) 745-2111

T&L PROJECT NO.: 11164-03

JULY 2012



# SHEET INDEX

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CAUTION!
RESTRICTED CONSTRUCTION CORRIDOR
WHILE AN EFFORT HAS BEEN MADE TO INDICATE THE
PRESENCE OF UNDERGROUND FACILITIES, THERE IS NO
GUARANTEE THAT THOSE SHOWN ARE LOCATED
PROPERLY OR THAT THOSE SHOWN ARE ALL THAT EXIST.



726 Auburn Avenue Radford, Virginia 24141



SHEET INDEX CONTRACT IV

Drawn: **DEH/WER/JAN** Checked: EGG/EWP/DLM JULY 2012

NOT TO SCALE

#### GENERAL NOTES

- 1. AERIAL PHOTOGRAPHY TO PROVIDE PLANIMETRIC MAPPING WAS OBTAINED FROM THE VIRGINIA GEOGRAPHIC INFORMATION NETWORK (VGIN). THE MAPPING WAS PREPARED IN 2000. MAPPING WAS SUPPLEMENTED WITH FIELD MEASUREMENTS MADE BY THOMPSON & LITTON IN JANUARY APRIL 2011 & JUNE 2012.
- HORIZONTAL CONTROL IS BASED ON NORTH AMERICAN DATUM OF 1927 (NAD27) AND VERTICAL CONTROL IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. EXISTING FIBER LOCATION ILLUSTRATED ON SHEET 67A-5 IS BASED ON CITIZENS CONTRACT I PROJECT (2011).
- 4. THE CONTRACTOR SHALL CALL MISS UTILITY 72 HOURS PRIOR TO DIGGING AT 1-800-552-7001.
- 5. WHILE AN EFFORT HAS BEEN MADE TO INDICATE THE PRESENCE OF UNDERGROUND FACILITIES, THERE IS NO GUARANTEE THAT THOSE SHOWN ARE LOCATED PROPERLY OR THAT THOSE SHOWN ARE ALL THAT EXIST. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD LOCATE ALL UNDERGROUND OBSTRUCTIONS AND UTILITIES PRIOR TO CONSTRUCTION. COMPLETE REPAIR OF ANY AND ALL DAMAGES INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- 6. IN ALL CASES WHERE EXCAVATION IS NECESSARY (BORE PITS, TRENCHES, ETC.), ALL BACKFILL SHALL BE VDOT NO. 21A OR 21B AGGREGATE WITH 6" PADDING OVER CABLE. EARTHFILL IS NOT AN ACCEPTABLE BACKFILL MATERIAL UNLESS COMPACTED TO VDOT STANDARDS.
- 7. THE MINIMUM DEPTH OF THE FIBER OPTIC LINE SHALL BE THIRTY (30) INCHES
- 8. FIBER OPTIC LINE BORED UNDER ANY WATERWAY SHALL BE A MINIMUM DEPTH OF THIRTY-SIX (36) INCHES BELOW THE DRY BOTTOM OF THE WATERWAY.
- 9. PLACEMENT OF WARNING TAPE SHALL BE SIXTEEN (16) INCHES ABOVE THE FIBER OPTIC LINE.
- 10. HANDHOLES SHALL BE VEHICULAR TRAFFIC RATED (H20) AT ALL LOCATIONS, EXCEPT WHERE SPECIFIED AND PROPERLY MARKED AND PLACED ON GRAVEL BASE AS SHOWN ON SHEET T9.
- 11. ALL AERIAL CROSSINGS SHALL BE A MINIMUM OF 18' OVER ALL ROADS EXCEPT LIMITED ACCESS WHICH SHALL BE 21'.
- 12. ALL POLES BEING SET SHALL BE OUT OF THE DEFLECTION RANGE OF THE GUARD RAIL OR OUT OF THE CLEAR ZONE.
- 13. HANDHOLES PLACED IN GRASS OR DIRT/GRAVEL AREAS ALONG ROAD SIDES SHALL BE MOUNTED 2" BELOW GRADE AS SHOWN ON SHEET T9.
- 14. HANDHOLES PLACED IN ASPHALT AREAS SHALL BE MOUNTED FLUSH AS SHOWN ON SHEET T9.
- 15. POST TYPE MARKERS SHALL BE PLACED BEHIND GUARD RAILS AND DITCHES.
- 16. THE DRAWINGS ARE BASED OFF THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) RURAL UTILITIES SERVICES (RUS) SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION OF AERIAL PLANT AND CONSTRUCTION OF DIRECT BURIED PLANT.
- 17. THE PLACEMENT OF EACH BM53 SHALL BE FIELD VERIFIED BY THE CONTRACTOR/INSPECTOR.
- 18. SEQ SEQUENCE SHALL BE PROVIDED AT ROAD, STREAM, RAILROAD CROSSING, PLACEMENT OF HANDHOLES, PEDESTALS, CULVERTS, SPLICE POINTS AND BM53's DURING CONSTRUCTION ON A SET OF REDLINES DRAWINGS AND PROVIDED TO THE ENGINEER ON A WEEKLY BASIS.
- 19. ALL THE LEADS AND HEIGHTS (L/H) FOR THE GUYS ON THIS PROJECT ARE BASED ON THE ESTIMATED HEIGHT OF ATTACHMENTS. THE ACTUAL HEIGHT FOR ALL ATTACHMENTS WILL BE FURNISHED BY THE POLE OWNERS. THE SIZE OF THE GUYS HAVE BEEN DETERMINED BASED ON THE "WORST CASE SCENARIO" AND WILL NOT CHANGE IF THE H/L IS ADJUSTED. SIZE OF GUYS WERE DETERMINED USING THE USDA RUS BULLETIN 1751F-650, SECTION 2.582.6, TABLE 1-5.
- 20. ANY DEVIATIONS TO THE PEDESTALS, HANDHOLES AND POLES LOCATION AS SHOWN ON THE DRAWINGS SHALL REQUIRE PRIOR APPROVAL FROM THE INSPECTOR/CITIZENS.
- 21. ALL UNPAVED AND UNGRAVELED AREAS DISTURBED BY EXCAVATION SHALL BE SEEDED.
- 22. ALL WORK WITHIN VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE VDOT "ROAD AND BRIDGE SPECIFICATIONS" AND "ROAD AND BRIDGE STANDARDS", AS APPLICABLE.
- 23. FIBER LINES AND APPURTENANCES ON VDOT RIGHT-OF-WAY SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, SPECIAL PROVISIONS-MP-63 AND SUBSEQUENT SPECIAL PROVISIONS-MP-71, AS APPLICABLE.
- 24. FIBER LINES INSTALLED UNDER VDOT DRAINAGE STRUCTURES SHALL HAVE A MINIMUM CLEARANCE OF 18 INCHES OR HAVE A MINIMUM 5' OFFSET AROUND THE END OF THE STRUCTURE WHERE CONDITIONS PROHIBIT INSTALLATION UNDER THE STRUCTURE.
- 25. FIBER LINES AND APPURTENANCES SHALL BE INSTALLED OFF THE EDGE OF PAVEMENT ON PRIMARY AND SECONDARY ROADWAYS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

- 25.1. ON PRIMARY & SECONDARY ROADWAYS, FIBER LINES AND APPURTENANCES SHALL BE INSTALLED A MINIMUM OF 2 FEET OFF THE EDGE OF PAVEMENT IN FILL SECTIONS AND A MINIMUM OF 18 INCHES BACK OF DITCH LINES IN CUT SECTIONS.
- 26. WASTE DISPOSAL AREAS MUST BE PRE-APPROVED BY VDOT. THE CONTRACTOR MUST FURNISH VDOT TWO (2) COPIES OF ALL PROPERTY OWNER AGREEMENTS FOR WASTE DISPOSAL AREAS.
- 27. THE CONTRACTOR SHALL HAVE ACCESSIBILITY TO A MOTOR GRADER (OR SIMILAR TYPE EQUIPMENT), AND A DUMP TRUCK FOR RE-GRADING OF THE SHOULDERS OR DITCHES. ROTARY BROOM EQUIPMENT SHALL BE ON THE PROJECT SITE (IF NECESSARY) AND THE ROADWAY SHALL BE SWEPT DAILY.
- 28. WHEN "CLEATED (TRACK MOUNTED) EQUIPMENT" IS USED DURING CONSTRUCTION, THE PAVEMENT MUST BE PROTECTED BY EITHER VDOT NO. 9 OR NO. 10 AGGREGATE OR OTHER VDOT APPROVED MEANS. ALL EQUIPMENT OUTRIGGERS SHALL HAVE RUBBER PADS FOR USE ON PAVED SURFACES.
- 29. SHOULDER RE-GRADING AND REPAIRS SHALL BE PERFORMED DAILY. ALL SHOULDERS DISTURBED BY INSTALLATION OF FIBER MUST BE RE-GRADED TO SLOPE AWAY FROM THE PAVED SURFACE AT A SLOPE OF 3/4" PER FOOT AND STABILIZED WITH VDOT TYPE 1, NO. 21A OR 21B AGGREGATE AT 2" MINIMUM DEPTH.
- 30. BACKFILL MATERIAL UTILIZED WITHIN THE TRAVEL WAY OF THE VDOT RIGHT-OF-WAY SHALL BE VDOT TYPE 1, NO.21A OR 21B AGGREGATE, COMPACTED IN 6-INCH LIFTS.
- 31. CITIZENS HAS VDOT LAND USE PERMIT FOR THIS PROJECT.
- 32. THE CONTRACTOR SHALL KEEP AT THE PROJECT SITE A COPY OF THE VDOT LAND USE PERMIT FOR THIS PROJECT
- 33. A SET OF "AS-BUILT PLANS" FOR FACILITIES CONSTRUCTED IN THE VDOT RIGHT-OF-WAY SHALL BE SUBMITTED TO VDOT BEFORE THE SURETY BOND WILL BE RELEASED.
- 34. THE CONTRACTOR IS RESPONSIBLE FOR WORKMANSHIP WITHIN THE VDOT RIGHT-OF-WAY FOR A PERIOD OF THREE YEARS AFTER THE DATE OF COMPLETION.
- 35. A SEPARATE PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN THE CONTRACTOR AND VDOT BEFORE ANY WORK BEGINS TO DISCUSS SAFETY, SCHEDULING OF RESTORATION WORK, ETC. THE CONTRACTOR SHALL CONTACT THE VDOT RESIDENCY ADMINISTRATOR OR HIS REPRESENTATIVE 48 HOURS PRIOR TO CONSTRUCTION.
- 36. PRIVATE ENTRANCE DRAINAGE CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH A MINIMUM 18" CULVERT.
- 37. R3-5 (TREE TRIMING) SHALL BE FIELD VERIFIED AND BE A MUTUAL AGREEMENT BETWEEN THE COUNTY/TOWN/CITY, LANDOWNER, CONTRACTOR AND INSPECTOR/ENGINEER.
- 38. THE INSTALLATION OF FIBER IN THE PRESENCE OF GAS SHALL BE PLACED IN ACCORDANCE WITH THE GAS COMPANY SPECIFICATIONS.
- 39. THE EXISTENCE AND LOCATION OF PAVED/CONCRETE ROADS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND CONSTRUCTED ACCORDINGLY.
- 40. ALL FINAL PAVEMENT PATCHES AND OVERLAYS WITHIN VDOT RIGHT-OF-WAY SHALL BE INSTALLED WITH A PAVING MACHINE AND SHALL MEET VDOT SPECIFICATIONS FOR PAVEMENT REPLACEMENT.
- 41. ALL DISTURBED AREAS SHALL BE GRADED TO MAINTAIN POSITIVE DRAINAGE TO ALL DRAINAGE STRUCTURES.
- 42. DOUBLE LASH ACROSS ALL RAILROADS, RIVER AND MAJOR ROADS.
- 43. ALL AERIAL ROUTES SHALL BE 6.6M STRAND, UNLESS OTHERWISE NOTED.
- 44. CONTRACTOR SHALL FOLLOW THE NESC (NATIONAL ELECTRICAL SAFETY CODE) ON ALL AERIAL ROUTES.
- 45. ALL GUYS, ANCHORS, GROUNDS SHALL CONFORM TO RUS REGULATIONS. AERIAL SHALL BE GROUNDED AT CORNERS, START, END AND ALL POWER COMPANY VERTICAL GROUNDS.
- 46. THOMPSON & LITTON DID NOT OBTAIN ANY EASEMENTS OR PERMITS FOR PERMANENT OR TEMPORARY PLACEMENT OF THIS CABLE, STORING OF SUPPLIES, OR ENTERING UPON ANY PROPERTIED IN ANYWAY. CONTRACTOR SHOULD HAVE COPIES OF THE PERMITS AND EASEMENTS FROM CITIZENS BEFORE STARTING A WORK OPERATION.
- 47. ALL BFO AND CO QUANTITIES ARE MEASURE IN LINEAR FEET.
- 48. SPLICE LOCATIONS ARE BASED ON 15,000 FT REELS FOR BIDDING PURPOSES ONLY. ACTUAL SPLICE LOCATIONS SHALL BE DETERMINE BY CONTRACTOR BASED ON FIELD CONDITIONS AND LENGTH OF REELS WITH PRIOR APPROVAL FROM OWNER/ENGINEER. THE OWNER WILL FURNISH (5)—15,000FT AND (3)—12,000FT REELS OF 240CT FIBER AND (2) 10,000FT REELS OF 144CT FIBER.
- 49. OWNERSHIP OF DOCUMENTS: THIS DOCUMENT, INCLUDING THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF THOMPSON & LITTON AND IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THOMPSON & LITTON.

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GENERAL NOTES

Drawn: **D** Checked: **E** 

DEH/WER/JAN EGG/EWP/DLM JULY 2012

## **EROSION AND SEDIMENT CONTROL NOTES**

- EROSION AND SEDIMENT CONTROL SHALL BE IMPLEMENTED IN ACCORDANCE WITH ALL LOCAL REQUIREMENTS, THE EROSION AND SEDIMENT CONTROL PLAN FOR THIS PROJECT AND THE LATEST EDITION OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK," BY THE DEPARTMENT OF CONSERVATION AND RECREATION. AS APPLICABLE.
- THE CONTRACTOR SHALL KEEP AT THE PROJECT SITE COPIES OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL FACILITIES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.
- ALL DISTURBED AREAS SHALL DRAIN TO APPROVED EROSION AND SEDIMENT CONTROL FACILITIES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION IS ACHIEVED.
- MATERIAL STOCKPILES SHALL BE CONTAINED WITHIN SEDIMENT BARRIERS. STOCKPILES THAT ARE TO REMAIN UNWORKED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING WITHIN 7 DAYS AFTER THE COMPLETION OF
- TEMPORARY STABILIZATION SHALL BE INSTALLED WITHIN 7 DAYS ON DENUDED AREAS THAT ARE TO REMAIN DORMANT FOR GREATER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. PERMANENT STABILIZATION SHALL BE INSTALLED WITHIN 7 DAYS OF FINAL STABILIZATION.
- ALL AREAS WHICH REQUIRE SEEDING SHALL BE "TOPSOILED" AND STABILIZED WITH MULCH IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN AND SPECIFICATIONS FOR THIS PROJECT.
- THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL FACILITIES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE MADE IMMEDIATELY. RECORDS OF ALL INSPECTIONS AND REPAIRS MADE TO EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR.
- NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME AND MUST BE FILLED BY END OF WORK DAY WITH PROPER MATERIAL.
- EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- PAVED OR PUBLIC ROAD SURFACES SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. 11.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH A DEWATERING STRUCTURE AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
- THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IS COMPLETED IN THE WATERCOURSE.
- THE PERMITTEE OR HIS/HER CONTRACTOR SHALL ENSURE THAT DUST IS HELD TO AN ABSOLUTE MINIMUM ALONG ALL PORTIONS OF THE WORK THROUGH THE APPLICATION OF MOISTURE.

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EROSION AND CONTROL NOTES

DEH/WER/JAN Checked: EGG/EWP/DLM JULY 2012

# **GENERAL LEGEND**

CO 240B /6N		GENERAL LEGEND	
BFO_240R_ CO_144R/5M CO_144R/5M CO_144R/5M BD7 BURIED FIBER OPTIC, RIBBON AERIAL ON 6M STRAN BD7 BURIED PLANT HOUSING. TYPE H STAKE—MOUNTED BHF (24x36x30)T BURIED HANDHOLE  SNOWSHOE  II BM2 GROUND SNOWSHOE  III BM2 GROUND SNOWSHOE  BM61 BM61 BORING BM61DIR(2**) DIRECTIONAL DRILL BORING BM71 ROCK BM80 RISER GUARD PE DOWN GUY PF EXPANDING ANCHOR PM—11 GUY GUARD HANDHOLE/VAULT PEDESTAL GAS LINE SEWER MANHOLE ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT  VDOT EQUIPMENT LSH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)	EXISTING	NEW	DESCRIPTION
SNOWSHOE    II BM2		BFO 240R CO 144R/6M CO 240R/6M BD7	240 COUNT BURIED FIBER OPTIC, RIBBON 144 COUNT FIBER OPTIC, RIBBON AERIAL ON 6M STRAND 240 COUNT FIBER OPTIC, RIBBON AERIAL ON 6M STRAND BURIED PLANT HOUSING. TYPE H STAKE-MOUNTED
HIBM2C  (53) WARNING SIGN  BM61 BORING  BM71 ROCK  BM80 RISER GUARD  PC DOWN GUY  PF EXPANDING ANCHOR  PM-11 GUY GUARD  HANDHOLE/VAULT  PEDESTAL  GAS LINE  Servito  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)		BHF (24x36x30)T	BURIED HANDHOLE
## BM61    BM61   BORING     BM61   BORING     BM71   ROCK     BM80   RISER GUARD     PE   DOWN GUY     PF   EXPANDING ANCHOR     PM−11   GUY GUARD     HANDHOLE/VAULT     PEDESTAL     GAS   LINE     Servito   SEWER MANHOLE     ELECTRIC/TELEPHONE LINE     BUILDING/STRUCTURES     BRIDGE/CULVERT (BOX)     CULVERT (ROUND)     STREAM     FENCE     PAVED ROAD     DIRT/GRAVEL ROAD     COUNTY LINE     FIRE HYDRANT     VE   VDOT EQUIPMENT     LASH TOGETHER     POLE TO POLE GUY     GUY     L LEAD (FT)     H HEIGHT (FT)		$\infty$	SNOWSHOE
BM61 BORING  BM61DIR(2") DIRECTIONAL DRILL BORING  BM71 ROCK  BM80 RISER GUARD  POLE  PE DOWN GUY  PF EXPANDING ANCHOR  PM-11 GUY GUARD  HANDHOLE/VAULT  PEDESTAL  GAS LINE  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	•	- II ВМ2	GROUND
BM61DIR(2") DIRECTIONAL DRILL BORING  BM71 ROCK  BM80 RISER GUARD  POLE  PE DOWN GUY  PF EXPANDING ANCHOR  PM-11 GUY GUARD  HANDHOLE/VAULT  PEDESTAL  GAS LINE  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	(53)	(53)	WARNING SIGN
BM71 ROCK BM80 RISER GUARD  POLE PE DOWN GUY PF EXPANDING ANCHOR PM—11 GUY GUARD  HANDHOLE/VAULT PEDESTAL GAS LINE SEWER MANHOLE ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT  VE VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)		BM61	BORING
BM80 RISER GUARD  POLE PE DOWN GUY PF EXPANDING ANCHOR PM-11 GUY GUARD  HANDHOLE/VAULT PEDESTAL  GAS GAS GAS LINE SEWER MANHOLE E-T ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT  VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)			DIRECTIONAL DRILL BORING
POLE PE DOWN GUY PF EXPANDING ANCHOR PM—11 GUY GUARD HANDHOLE/VAULT PEDESTAL GAS GAS LINE SEMER MANHOLE ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)			
PE DOWN GUY PF EXPANDING ANCHOR  PM-11 GUY GUARD  HANDHOLE/VAULT  PEDESTAL  GAS GAS GAS LINE  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  CUY  LEAD (FT)  H HEIGHT (FT)		BM80	
PF EXPANDING ANCHOR  PM-11 GUY GUARD  HANDHOLE/VAULT  PEDESTAL  GAS LINE  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	$\otimes$	_	
PM-11 GUY GUARD HANDHOLE/VAULT PEDESTAL GAS LINE SSIMP SEWER MANHOLE ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)		. –	
HANDHOLE/VAULT PEDESTAL GAS GAS SSMINE SEWER MANHOLE ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES BRIDGE/CULVERT (BOX) CULVERT (ROUND) STREAM FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)			
PEDESTAL  GAS  SSIMP  SEWER MANHOLE  ELECTRIC/TELEPHONE LINE  BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)		FM-11	
GAS LINE  SEMER MANHOLE  ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	<b>└──</b> □ Tped	7	·
SEWER MANHOLE  ELECTRIC/TELEPHONE LINE BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER POLE TO POLE GUY  GUY  L LEAD (FT) H HEIGHT (FT)	·		
BUILDING/STRUCTURES  BRIDGE/CULVERT (BOX)  CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)			
CULVERT (ROUND)  STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	—— E-T ——		
STREAM  FENCE  PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	Ħ		BRIDGE/CULVERT (BOX)
FENCE PAVED ROAD DIRT/GRAVEL ROAD COUNTY LINE FIRE HYDRANT VE VDOT EQUIPMENT LASH TOGETHER POLE TO POLE GUY  GUY L LEAD (FT) H HEIGHT (FT)	<b>&gt;</b>		CULVERT (ROUND)
PAVED ROAD  DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  CUY  L LEAD (FT)  H HEIGHT (FT)	···		STREAM
DIRT/GRAVEL ROAD  COUNTY LINE  FIRE HYDRANT  VE  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  CUY  L  LEAD (FT)  H  HEIGHT (FT)	X		FENCE
COUNTY LINE  FIRE HYDRANT  VE  VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)			PAVED ROAD
FIRE HYDRANT  VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)	======		DIRT/GRAVEL ROAD
VE VDOT EQUIPMENT  LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)			
LASH TOGETHER  POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)		_	
POLE TO POLE GUY  GUY  L LEAD (FT)  H HEIGHT (FT)		VE O	
GUY L LEAD (FT) H HEIGHT (FT)		Ų	
L LEAD (FT) H HEIGHT (FT)		<del></del>	PULE TO PULE GUT
		Н	LEAD (FT) HEIGHT (FT)



CAUTION!
RESTRICTED CONSTRUCTION CORRIDOR
WHILE AN EFFORT HAS BEEN MADE TO INDICATE THE
PRESENCE OF UNDERGROUND FACILITIES, THERE IS NO
GUARANTEE THAT THOSE SHOWN ARE LOCATED
PROPERLY OR THAT THOSE SHOWN ARE ALL THAT EXIST.

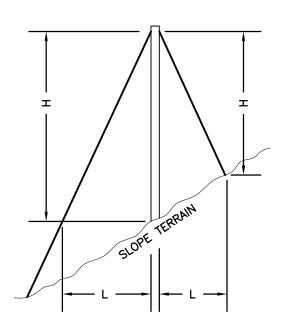


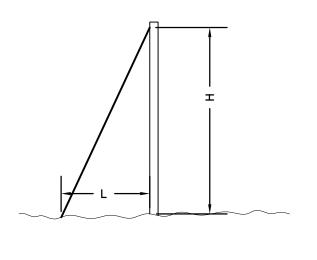
726 Auburn Avenue Radford, Virginia 24141

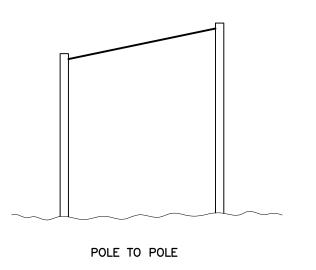


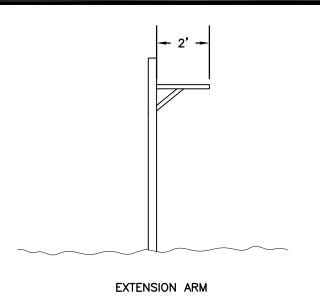
GENERAL LEGEND

Drawn: DEH/WER/JAN Checked: EGG/EWP/DLM JULY 2012





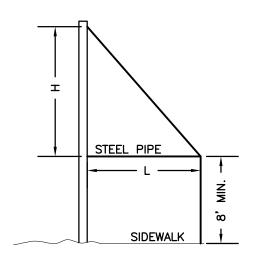




LEAD = L HEIGHT = H

# **DEFINITION OF "LEAD" AND "HEIGHT"**

NOT TO SCALE



SIDEWALK GUY

NOT TO SCALE



RESTRICTED CONSTRUCTION CORRIDOR
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PRESENCE OF UNDERGROUND FACILITIES, THERE IS NO
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PROPERLY OR THAT THOSE SHOWN ARE ALL THAT EXIST.

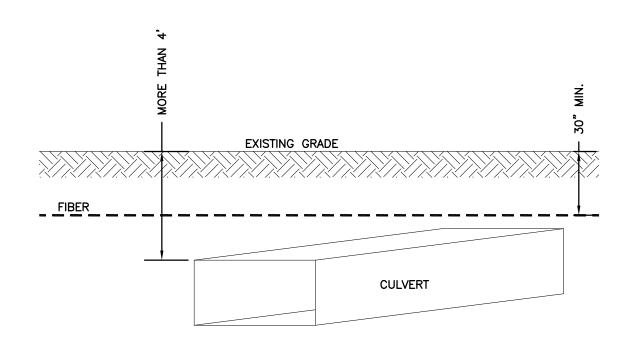


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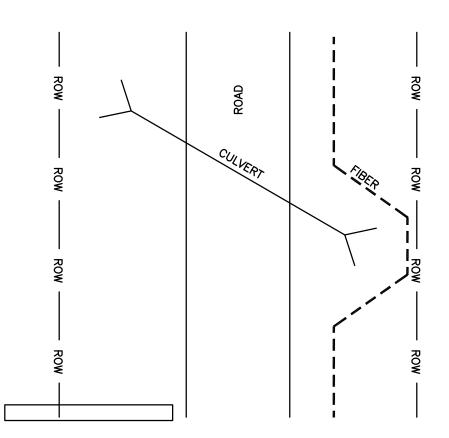


TYPICAL DETAILS

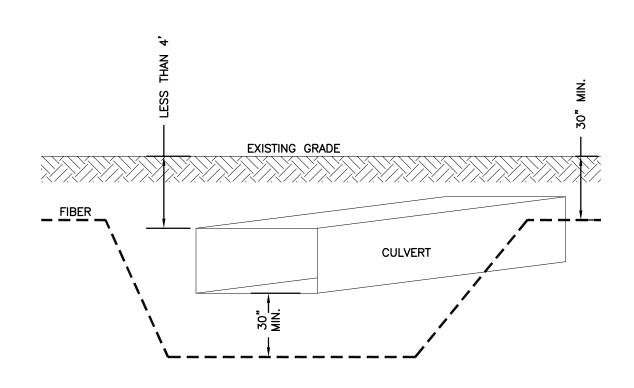
Drawn: **DEH/WER/JAN** Checked: EGG/EWP/DLM JULY 2012



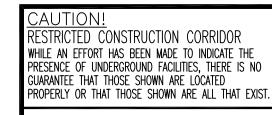
### **CULVERT GO OVER** NOT TO SCALE



**CULVERT GO AROUND** NOT TO SCALE



### **CULVERT GO UNDER** NOT TO SCALE



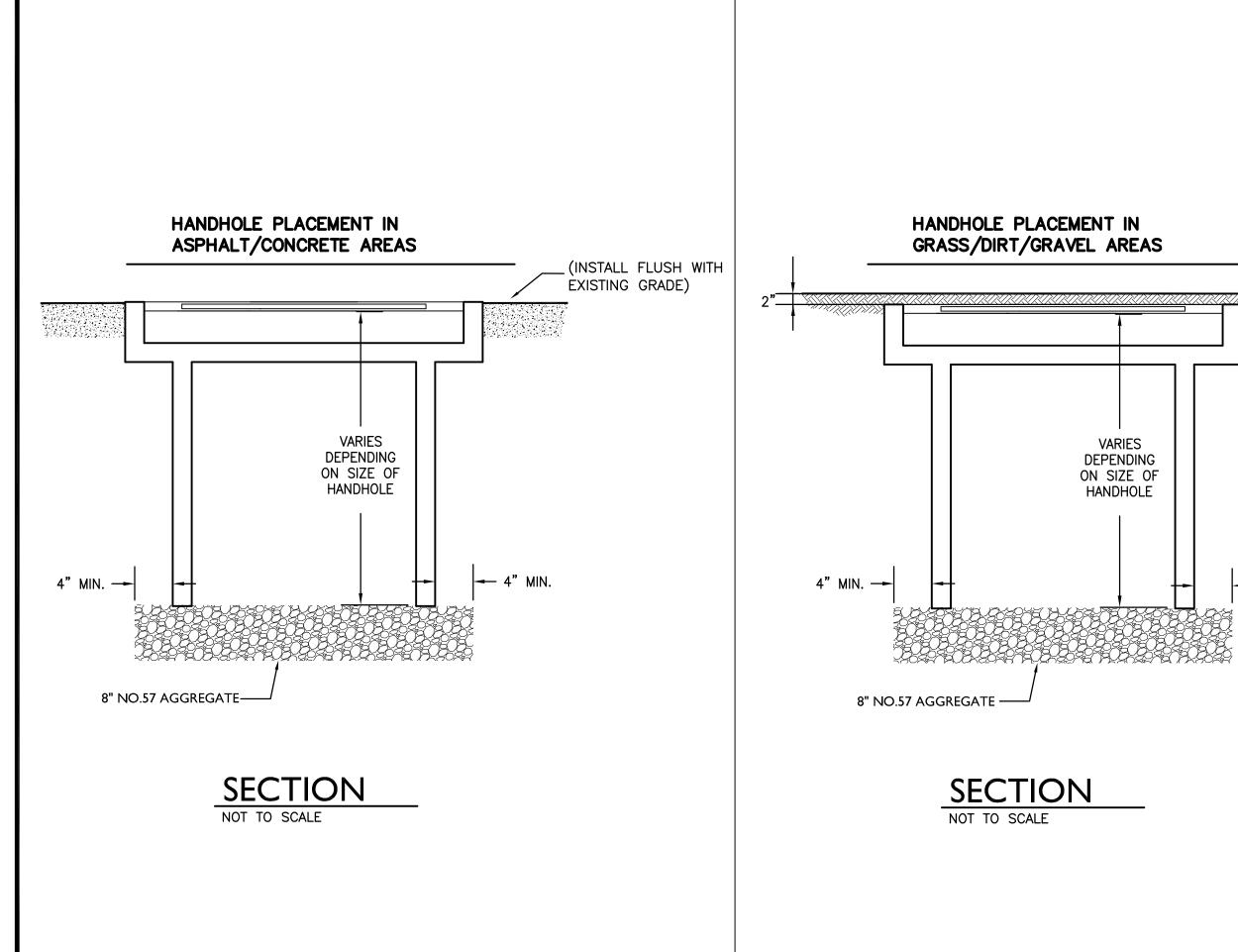


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TYPICAL DETAILS

DEH/WER/JAN Checked: EGG/EWP/DLM JULY 2012



FINISHED GRADE

CAUTION!

RESTRICTED CONSTRUCTION CORRIDOR

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PROPERLY OR THAT THOSE SHOWN ARE ALL THAT EXIST.



THOMPSON & LITTON

726 Auburn Avenue Radford, Virginia 24141



TYPICAL DETAILS

DEH/WER/JAN Checked: EGG/EWP/DLM JULY 2012

