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PLAN NOTEBOOK No. _____	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
	ALIGNMENT CHECKED _____		
	RT. OF WAY CHECKED _____		

VDH&amp;T NO. 6013

NOTES:

- A. MANHOLE FRAMES, COVERS, COLLARS, AND GASKET MATERIAL  
B. CONDUIT AND BENDS  
C. ASSOCIATED JOINING MATERIAL FOR CONDUITS

4. PRE-CAST ELECTRICAL MANHOLES WILL BE FURNISHED BY APCO. THE VENDOR WILL DELIVER THE MANHOLE TO THE JOB SITE, AND INSTALL THE MANHOLE WITH THE ASSISTANCE OF THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT APCO 48 HOURS (TWO WORKING DAYS) BEFORE MANHOLE IS NEEDED, AND APCO WILL PROVIDE CONTRACTOR WITH VENDOR'S TELEPHONE NUMBER FOR CONTRACTOR TO INFORM VENDOR OF REQUIRED DELIVERY.

6. WHEREVER THE TOP OF THE MANHOLE IS AT A GREATER DEPTH BELOW THE FINISHED GRADE OF THE STREET OR SIDEWALK THAN THE DEPTH OF THE MANHOLE FRAME, A BRICK CHIMNEY SHALL BE BUILT AROUND THE ROOF OPENING. THE BRICK CHIMNEY SHALL BE CONSTRUCTED OF BRICKS OR CONCRETE CHIMNEY SHALL HAVE WALLS NOT LESS THAN 9 INCHES THICK LAID UP IN CEMENT MORTAR, AND LAYERED WITH A SMOOTH CONCRETE COATING. WHERE A CHIMNEY GREATER THAN 42 INCHES IN LENGTH IS REQUIRED, THIS CHIMNEY SHALL BE MADE OF CONCRETE WITH WALLS NOT LESS THAN 12 INCHES THICK. THE CHIMNEY SHALL BE PLACED 12 INCHES ON CENTERS BOTH WAYS AND WATERPROOFED.

8. THE MINIMUM DEPTH OF A MANHOLE SHALL BE 12 INCHES MEASURED FROM THE UNDERSIDE OF THE PAVEMENT IN PAVED STREETS OR SIDEWALKS AND FROM GRADE IN UNPAVED AREAS TO THE TOP OF THE ROOF SLAB, UNLESS OTHERWISE INDICATED ON PLANS.

10. TRENCHES FOR DUCT SYSTEMS SHALL BE GRADED SO THAT THE DUCT WILL BE CONTINUOUSLY DRAINED EITHER FROM ONE MANHOLE TO THE NEXT OR FROM A HIGH POINT BETWEEN MANHOLES TO EITHER MANHOLE. CONTRACTOR SHALL BE REQUIRED TO TAKE UP AND REPLACE, ENTIRELY AT HIS EXPENSE, ANY CONDUIT RUN WHERE THIS CONDITION DOES NOT EXIST.

11. UNLESS OTHERWISE SPECIFIED, ANY CONDUITS TO BE LAID IN CONCRETE SHALL BE PLACED BY THE "BUILD UP" METHOD WITH CONDUIT JOINTS STAGGERED.

12. SPACERS OF PRECAST CONCRETE OR OTHER APPROVED MATERIAL THAT MAY BE LEFT IN PLACE AFTER THE CONCRETE HAS BEEN POURED MAY BE USED TO HOLD CONDUITS IN LINE. NO WOOD SPACERS SHALL BE PERMITTED. SPACERS SHALL BE STAGGERED IN LOCATION. INDIVIDUAL CONDUITS AND CONDUIT LAYERS SHALL BE SECURELY ANCHORED TO PREVENT DISPLACEMENT OR FLOTATION OF THE CONDUITS IN WET CONCRETE.

13. WHERE CONDUITS ARE TO BE STUBBED OUT, A PLUG AS MADE BY THE CONDUIT MANUFACTURER FOR THE CONDUIT, SHALL BE PLACED IN THE CONDUIT END.

14. WHENEVER THE WORK OF LAYING CONDUIT IS TEMPORARILY DISCONTINUED DURING THE CONSTRUCTION PERIOD, THE END OF EACH DUCT SHALL BE CLOSED BY A CAP OR PLUG TO PREVENT ANY EARTH OR FOREIGN SUBSTANCES FROM ENTERING THE CONDUIT.

15. WHERE DUCT RUNS ENTER A MANHOLE, EACH DUCT SHALL TERMINATE IN A DUCT BELL SET IN THE MANHOLE WALL.

16. AFTER THE LAYING OF CONDUIT IS COMPLETED, A WIRE BRUSH 1/4 INCH GREATER IN DIAMETER THAN THE INSIDE DIAMETER OF THE CONDUIT AND 6 INCHES LONG, FOLLOWED BY A FLEXIBLE IRON MANDREL 1/4 INCH LESS THAN THE DIAMETER OF THE CONDUIT AND 12 INCHES LONG FOLLOWED BY A SECOND SIMILAR WIRE BRUSH, MUST BE PASSED THROUGH EACH DUCT FROM MANHOLE TO MANHOLE. THIS TEST SHALL BE REQUIRED BEFORE THE ACCEPTANCE OF THE WORK. UPON WITHDRAWAL OF THE MANDREL, 1/8 INCH POLYPROPYLENE ROPE MUST BE DRAWN IN AND LEFT IN DUCTS WITH SUFFICIENT LENGTHS IN MANHOLES TO PERMIT THE ROPE BEING FASTENED SECURELY. THIS ROPE IS TO BE FURNISHED BY THE CONTRACTOR. ANY OBSTRUCTIONS TO THE FREE PASSAGE OF THE MANDREL THROUGH THE DUCT MUST BE REMOVED BY THE CONTRACTOR AT HIS EXPENSE.

17. INSTALL PVC CONDUIT WILL BE MEASURED IN LINEAR FEET OF CONDUIT, FOR THE SIZE SPECIFIED, COMPLETE IN PLACE, AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT. THIS PRICE SHALL INCLUDE ALL EXCAVATION, SHEETING AND SHORING, SPACERS, PLUGS, CAPS,

CONCRETE FOR ENCASEMENT, REINFORCING STEEL, CONDUIT INSTALLATION AND IDENTIFICATION, PULL ROPE, BACKFILL WITH SUITABLE MATERIAL, COMPACTION, DISPOSAL OF UNSUITABLE MATERIAL, AND RESTORATION OF PROPERTY.

18. INSTALL ELECTRICAL MANHOLE WILL BE MEASURED IN UNITS OF EACH, COMPLETE IN-PLACE, AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH. THIS PRICE SHALL INCLUDE ALL EXCAVATION, SHEETING AND SHORING, SPACERS, CONCRETE GROUTING, MANHOLE CHIMNEY, SETTING OF MANHOLE FRAME AND COVER, GROUNDING RODS, ASSISTANCE IN MANHOLE INSTALLATION, AGGREGATE, BACKFILL WITH SUITABLE MATERIAL, COMPACTION, DISPOSAL OF UNSUITABLE MATERIAL, AND RESTORATION OF PROPERTY.

REVISED	FHWA REGION	STATE	FEDERAL AID	STATE		SHEET NO.
			PROJECT	ROUTE	PROJECT	
11-27-95						
	3	VA.			1000-120-116, C-501	17(1)

## NOTES

1. BELL ATLANTIC TELEPHONE COMPANY WILL HAVE TWENTY-SIX (26) WEEKS AFTER THE CONTRACTOR COMPLETES HIS PORTION OF THE CONDUIT WORK TO COMPLETE TELEPHONE FACILITIES RELOCATION WORK BETWEEN STA. 8+00 TO STA. 16+00 PLAN SH. 17(2), AND TWO (2) WEEKS AFTER THE CONTRACTOR COMPLETES HIS PORTION OF THE CONDUIT WORK TO COMPLETE TELEPHONE FACILITIES RELOCATION WORK IN THE WELLS AVENUE AREA PLAN SH 17(2) AND 17(4).
2. BELL ATLANTIC EMPLOYEES AND THEIR CONTRACTORS SHALL HAVE FULL AND SAFE ACCESS TO THE WORK SITES INDICATED ON THE PLANS DURING THIS PERIOD.
3. EXISTING TELEPHONE FACILITIES AND TELEPHONE SERVICE MUST NOT BE DISTURBED UNTIL BELL ATLANTIC NOTIFIES CONTRACTOR THAT THE FACILITIES ARE NO LONGER WORKING.
4. WHERE TELEPHONE AND ELECTRICAL CONDUITS CROSS, CONDUIT BANKS SHOULD BE SEPARATELY ENCASED WITH 2" MIN. SEPARATION.
5. SEE SPECIAL PROVISIONS FOR MATERIAL AND MEASUREMENT AND PAYMENT FOR TELEPHONE ITEMS.