General Traffic Signal Notes:

1. All traffic signal work shall be constructed & installed in accordance with the Virginia Department of Transportation (VDOT) Road & Bridge Specifications dated 2002, the City of Suffolk Traffic Signal Specifications dated 2005, referred to as "City Specs," VDOT Road & Bridge Standards dated 2001, the Manual on Uniform Traffic Control Devices (MUTCD) dated 2003, the Virginia Work Area Protection Manual dated 2003 with any revisions & the 2005 National Electric Code.

2. The contractor shall contact Miss Utility for utility locations 48 hours before beginning construction.

3. Mast arm pole foundations shall be VDOT Standard PF–1. The contractor shall be responsible for securing soil borings & reviewing the elevations for the top of the foundations. A foundation design shall be prepared & submitted for approval by a Professional Engineer licensed in Virginia. The elevation of the top of the foundation shall be within 6" of the finished ground grades. If existing conditions do not allow for the use of a VDOT Standard PF–1 Foundation, notify the City Traffic Engineer's Representative.

4. The contractor shall stake signal pole locations and verify mast arm lengths with the City Traffic Engineer's Representative prior to drilling foundations. Contact Robert Lewis at (757) 514–7603 for verification.

5. Signal mounting shall conform to Standard SM–3.

6. All junction boxes shall be Standard JB–3A, 3B or 3C unless otherwise noted.

7. All conduits under pavement shall be bored at a minimum depth of 24". All other conduit shall be installed in accordance with Standard ECI–1 at a minimum depth of 18".

8. The Controller shall be a Quixote Traffic Corporation Model ATC, TS–2 Unit.

9. The Controller Cabinet shall be no less than 54" high, 44" wide & 24" deep and shall be large enough to provide for ease of maintenance to the controller & auxiliary equipment. The cabinet shall be wired in accordance with City Specifications. The foundations shall be VDOT CF–1.

10. The contractor shall arrange for electrical service with Virginia Power at the UPS junction box. The City Traffic Engineer will furnish the contractor with billing account information for Virginia Power.

11. All traffic signal wire shall be number 14 AWG, unless otherwise specified. A continuous wire (no splices) shall be run between the controller cabinet & the signal head.

12. Pedestrian heads shall be 1) Dialight Countdown Pedestrian Signal #430–6479–001X , 2) Pelco upper & lower arm assembly #SE 3148–P34), and 3) Peek Traffic Maintenance Housing #4302A–02–01–01.

13. Signal heads shall be LED. All signal heads shall have full tunnel–visors for each individual 12" section. All traffic signal heads shall have back plates. All items shall be in accordance with City Specifications.

14. Interconnection shall be provided by using Spread Spectrun Radio in accordance with City Specifications.

15. Emergency Pre–emption shall be installed using the 3M Opticom system. Model 721 detectors shall be installed on each mast arm pole.

16. Pole foundations, poles, and mast arms shall be designed to accommodate the following: a) A 5 section signal head with back plate 1 foot from the end of the mast arm, b) A 2.5 foot by 3 foot sign to the right of the 5 section signal head, c) 3 section signal heads with back plates every 8 feet or what the plan sheet shows, whichever has the greater load requirements and d) An 8 foot by 2.5 foot street name sign between the right most signal head and the mast arm pole.

17. The Video Detection System shall be pre–approved by the City of Suffolk. See Appendix 3.5 of the City Specs.

18. Location of junction boxes & Opticom Detectors are to be located by the Contractor and field reviewed by the City Traffic Engineer's Representative prior to installation.

19. The contractor shall submit shop drawings &/or catalog cuts for the mast arm pole, foundation design, controller, controller cabinet & signal heads with hardware to the developer's traffic engineer.

20. No work shall commence with the exception of the soil survey for the foundations until all submittals required are received and reviewed by the City Traffic Engineer's Representative.

21. All measurements for the placement of signal heads, signs, and cameras on mast arms shall be taken from the flange to the center of the signal head & signs.

22. The 30–day test period shall begin only after items shown on the City punch list have been completed. See Appendix 3.3 of the City Specifications for punch list requirements.

23. Conduits shall be installed so that moisture will drain as per Specifications Section 700.04 (h).

24. Upon completion of the traffic signal, the contractor shall submit to the City Traffic Engineer's representative an accurate and to scale as–built traffic signal plans. The as–builts shall be supplied in both a printed format and AutoCAD 2000 on CD.

25. All signal pole and controller cabinet foundation ground rods shall be placed in the nearest junction box. The electrical service ground rod shall be placed in a JB–2 junction box & shall be in conformance with Appendix 3.2 of the City Specifications.

General Traffic Signal Notes:

26. Contractor shall install a 1" conduit from the controller cabinet to the nearest junction box for the telephone cable.

27. An Uninterruptible Power Supply (UPS) shall be provided with each traffic signal & be CEPSI Model TRUPS–3 with required accessories shown in Appendix 3.4 of City Specs. The UPS shall include the uninterruptible power supply, the batteries, cabinet & the additional equipment necessary to provide power when the electricity is off from the power company.

28. Pedestrian push buttons are to be located on the mast arm poles. If the push buttons are further than 3' from the nearest sidewalk, then additional sidewalk shall be added to provide access for wheel chairs. The Polora "Bulldog" push button is to be used with a black color.

29. Traffic mast arm poles shall conform to the VDOT MP–1. All hardware shall be galvanized. Mast arm poles numbers 2, 3 & 4 shall be 30' high combination poles with single 12' luminaire arms on each pole.

30. Electrical service shall conform to VDOT Standard SE–5. Safety switches shall be enclosed in a rain tight box conforming to the requirements of NEMA 3R, with a lock–on/lock–off external switch handle. There shall be 100 amp circuit breaker disconnect with 40
amp breakers.

31 The contractor shall install the pavement markings as shown on plan sheet T–2 & the roadway plans. All pavement markings that are in conflict shall be eradicated. All pavement markings applied shall be in conformance with the City of Suffolk Pavement Marking Standards & Details available on the City web site. Please note that the City Traffic Engineer's office shall be notified 72 hours in advance of any application of pavement markings.

Traffic Signal Inspection Requirements

1. Prior to any work beginning, a preconstruction meeting will be required with Traffic Engineering. Call (757) 514–7603 to schedule.

2. A traffic control plan must be submitted & approved by Traffic Engineering prior to application for land use permit.

3. A land use permit shall be secured by the contractor for all work.

4. A supervisor, certified by IMSA (International Municipal Signal Association) shall be on site any time work is being completed on a traffic signal. 24–hour, 7–day a week contact information for the contractor staff shall be provided to Traffic Engineering prior to land use permit approval.

5. 48–hour notification will be required at (757) 514–7603 to schedule inspection of the following items prior to work commencing.

   a. All equipment location stakeout.

   b. All foundations prior to concrete pour including poles, cabinets & auxiliary equipment.

   c. All conduit connections prior to backfilling, including junction box connections.

   d. All conduit runs may be required to have a conduit mandral pulled through them prior to wire installation.

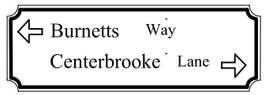
   e. A Traffic Engineering Representative must be present prior to turn on of any new equipment/installation.

   f. Traffic Engineering will complete an extensive review of all aspects of signal, sign & pavement marking work & any punch list items corrected prior to acceptance by the City.

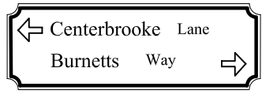
New Signs

A1

B1



B2



New street name signs shall be designed & mounted in accordance with City of Suffolk Standards. The field shall be green and the letters & borders shall be white. The main letters shall be 10" upper & lower case with English Times Bold font. The prefix or suffix shall be 4.5" upper & lower case with English Times Bold font. The sign lengths shall be either 6' or 8' in length. The corner radius shall be 2.5", the border shall be 1" wide & the border insert shall be $\frac{3}{4}$".

A

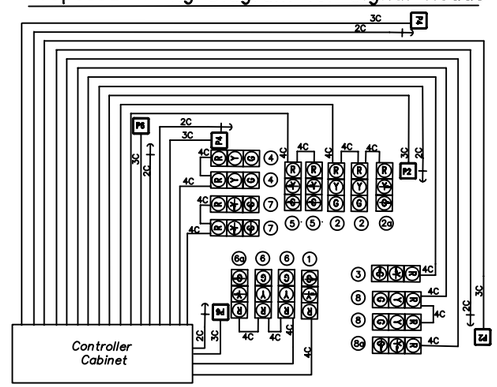
R10–15
30" x 36"

Proposed Color Sequence Chart

Signal Head	Sequence: Phasing 1–5	1–6	2–5	2–6	3–7	3–8	4–7	4–8	Flash	Clearance: R/Y	Clear
1	G	G								G	R
2			G	G					Y	G	Y
2a			G	G					Y	G	Y
3					G	G				G	R
4							G	G		G	Y
5	G		G							G	R
6		G		G					Y	G	Y
6a		G		G					Y	G	Y
7					G		G			G	R
8						G		G		G	Y
8a	G	G				G		G		G	Y
P2				W						W	CD
P4								W		W	CD
P8				W						W	CD

Empty box denotes Red Signal Head indication or Do Not Walk (DNW) pedestrian head indication. The count down (CD) for pedestrian heads is included in the Walk (W) phase.

Proposed Wiring Diagram for Signal Heads



MARK	REVISION	DATE	APPROVED
2	Added cameras #5 & #6 and changed phasing	10/25/07	BBG
1	Changed General Notes & phone numbers	7/30/07	BBG

Centerbrooke Village, Suffolk, VA.
Godwin Blvd, Centerbrooke Lane & Burnetts Way

COMMONWEALTH OF VIRGINIA
Bryant B. Goodloe
No. 7736
08/16/06
CERTIFIED PROFESSIONAL ENGINEER

Notes & Details

Bryant B. Goodloe, P.C.
8809 Adams Drive East
Suffolk, Virginia 23433
(757) 238–3835

DATE 08–16–06
SCALE 1"= 25'
CONT NO.
DRAWING NO. T–3