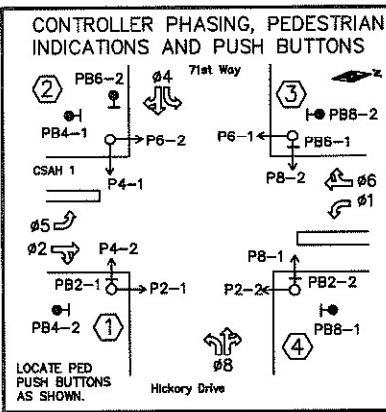
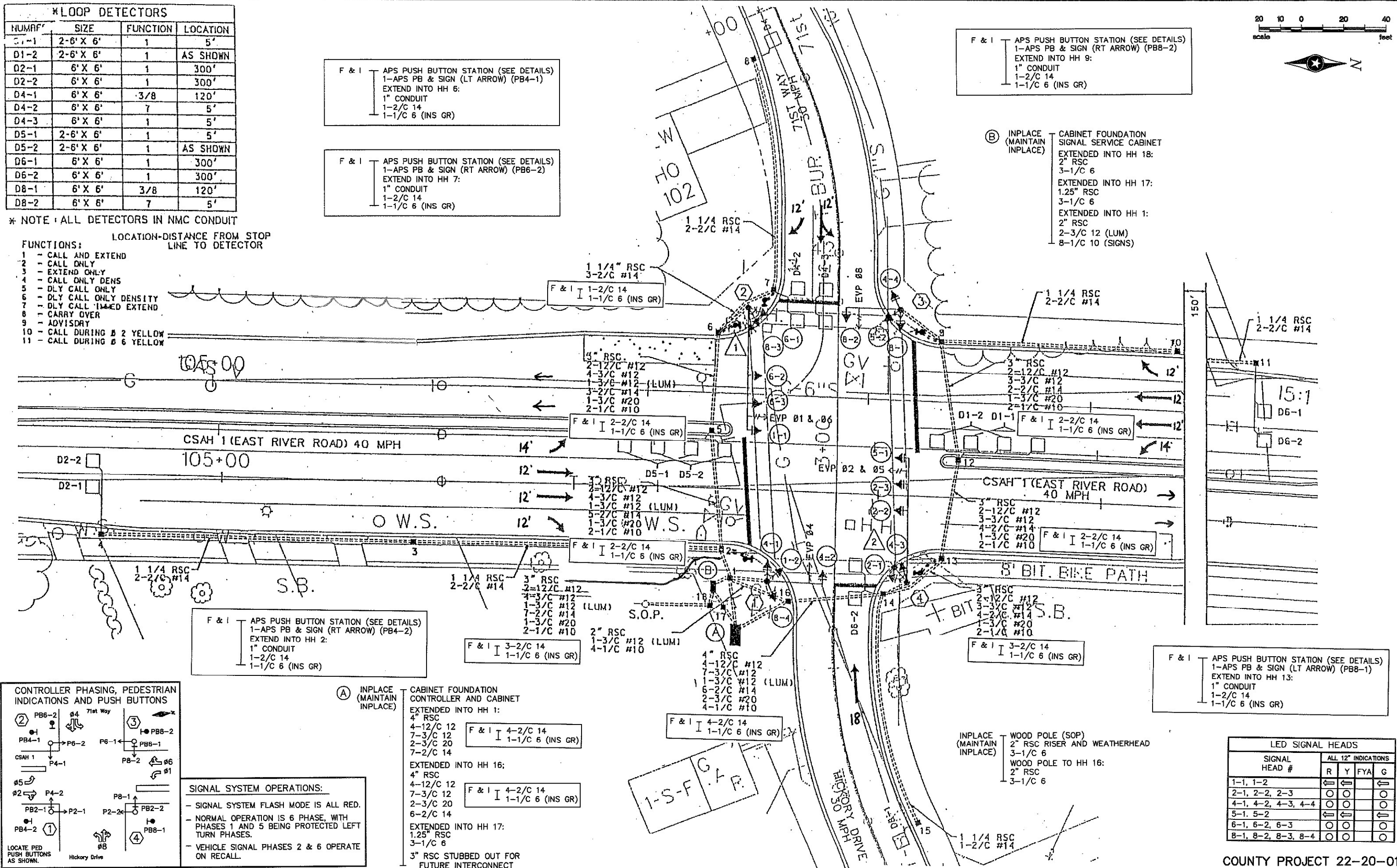


*LOOP DETECTORS			
NUMRF	SIZE	FUNCTION	LOCATION
D1-1	2-6' X 6'	1	5'
D1-2	2-6' X 6'	1	AS SHOWN
D2-1	6' X 6'	1	300'
D2-2	6' X 6'	1	300'
D4-1	6' X 6'	3/8	120'
D4-2	6' X 6'	7	5'
D4-3	6' X 6'	1	5'
D5-1	2-6' X 6'	1	5'
D5-2	2-6' X 6'	1	AS SHOWN
D6-1	6' X 6'	1	300'
D6-2	6' X 6'	1	300'
D8-1	6' X 6'	3/8	120'
D8-2	6' X 6'	7	5'

\* NOTE: ALL DETECTORS IN NMC CONDUIT

- FUNCTIONS:
- 1 - CALL AND EXTEND
  - 2 - CALL ONLY
  - 3 - EXTEND ONLY
  - 4 - CALL ONLY DENS
  - 5 - DLY CALL ONLY
  - 6 - DLY CALL ONLY DENSITY
  - 7 - DLY CALL IMMEDIATE EXTEND
  - 8 - CARRY OVER
  - 9 - ADVISORY
  - 10 - CALL DURING 2 YELLOW
  - 11 - CALL DURING 6 YELLOW
- LOCATION-DISTANCE FROM STOP LINE TO DETECTOR



- 1) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, UNLESS BOXED IN AND NOTED OTHERWISE ON PLANS.
- 2) ALL HANDHOLES ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, EXCEPT AS FOLLOWS:
  - ADJUST HANDHOLES 2, 5, 6, 12, 13, AND 14 TO FINISHED SURROUNDING SIDEWALK, MEDIAN, OR BOULEVARD GRADE AFTER ALL WORK IS COMPLETED.
  - REMOVE INPLACE CONCRETE FRAME AND COVER (HH 2, 5, 6, 12, 13, AND 14) AND FURNISH AND INSTALL NEW PVC METAL FRAME AND COVER ON EACH OF THESE HANDHOLES AFTER CONCRETE HANDHOLE BODY HAS BEEN ADJUSTED, SO THAT NEW COVER IS INSTALLED TO BE FLUSH WITH FINISHED SURROUNDING GRADE.
  - ALL HANDHOLE ADJUSTMENT WORK (INCLUDING FRAME & COVER REMOVAL AND REPLACEMENT) IS INCLUDED AS PART OF THE PAY ITEM FOR ITEM NO. 2565 (REVISE SIGNAL SYSTEM F). SEE DETAILS AND SPECIAL PROVISIONS FOR FURTHER INFORMATION.
- 3) LOCATION OF NEW PUSH BUTTON STATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 4) ALL CABLES AND CONDUCTORS, CONDUIT, HANDHOLES, AND LOOP DETECTORS ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED OTHERWISE.
- 5) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) 12 AWG IN 3/4" NMC. LOOP DETECTORS IMPACTED BY EITHER CURB RAMP WORK OR MILL/OVERLAY WORK SHALL BE FURNISHED, INSTALLED & MADE OPERATIONAL BY CONTRACTOR TO SATISFACTION OF ENGINEER. SEE DETAILS & SPECIAL PROVISIONS.
- 6) CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING LOOP DETECTOR SPLICE KITS (FOR ANY LOOP DETECTOR BEING REPLACED AS PART OF THIS PROJECT) AND SHALL FURNISH AND INSTALL NEW LOOP DETECTOR SPLICE KITS IN THE ADJACENT HANDHOLE FOR THESE LOOP DETECTORS AS CALLED FOR IN THE SPECIAL PROVISIONS.
- 7) A SEPARATE PAY ITEM HAS BEEN ADDED (2565 - RIGID PVC LOOP DETECTOR 6' x 6') FOR REPLACEMENT OF LOOP DETECTORS, SHOULD THESE LOOP DETECTORS BE REQUIRED TO BE REPLACED BY THE CONTRACTOR EITHER DUE TO MILL/OVERLAY OR CURB RAMP/CURB AND GUTTER WORK THAT CAUSES THE EXISTING LOOP DETECTOR TO BE DAMAGED. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT AND MAINTAIN THE EXISTING LOOP DETECTORS (INCLUDING LEAD-IN CONDUITS FROM HANDHOLE TO IN-PAVEMENT LOOP DETECTOR CONDUIT) AND SHALL NOTIFY THE ENGINEER IF THEY ANTICIPATE THAT A LOOP DETECTOR WILL BE DAMAGED DUE TO THEIR WORK. COUNTY WILL PROVIDE INITIAL LOCATION OF THESE LOOP DETECTORS FOR CONTRACTOR TO BE ABLE TO PLAN FOR WORKING AROUND THESE LOOP DETECTORS. SEE SPECIAL PROVISIONS.
- 8) CONTRACTOR SHALL MAINTAIN A SIGNAL SYSTEM IN OPERATION AT THIS INTERSECTION AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE ENGINEER FOR THE SIGNAL SYSTEM TO BE PLACED INTO ALL-RED FLASH DURING NON-PEAK TRAFFIC PERIODS (FOR WORK THAT REQUIRES THE SIGNAL SYSTEM TO BE OUT OF OPERATION OR TO ACCOMMODATE ROAD WORK AT THE INTERSECTION).
- 9) ANY DAMAGE TO INPLACE TRAFFIC SIGNAL FACILITIES (CONDUIT, CABLES, HANDHOLES, SIGNAL POLES, ETC.), DUE TO TRAFFIC SIGNAL OR ROAD WORK, SHALL BE REPAIRED BY CONTRACTOR TO SATISFACTION OF THE ENGINEER, AT NO EXPENSE TO THE COUNTY.
- 10) F & I = NEW, FURNISH AND INSTALL.  
S & I = INPLACE, SALVAGE AND INSTALL.
- 11) CONTRACTOR SHALL MAINTAIN AND REUSE EXISTING PEDESTRIAN SIGNAL HOUSINGS AND VISORS, SHALL REMOVE INPLACE LED HAND/WALKING PERSON INDICATIONS, AND SHALL FURNISH AND INSTALL NEW COUNTDOWN TIMER LED "HAND/WALKING PERSON" INDICATIONS IN THEIR PLACE FOR ALL 8 PED SIGNALS (INCIDENTAL TO REVISE SIGNAL SYSTEM F PAY ITEM).


- INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)  
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
- INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG  
(REMOVE)
- F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P2-1, P4-2)  
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE  
ADAPTOR AT 270 DEG (PB2-1)  
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS  
USED TO BE (AT 0/270 DEG)  
1-2/C 14

- INPLACE — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)  
(SALVAGE) — 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
- INPLACE — 2-R10-4b STICKER SIGNS AT 0/270 DEG  
(REMOVE)
- F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P6-1, P8-2)  
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE  
ADAPTOR AT 270 DEG (PB6-1)  
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS  
USED TO BE (AT 0/270 DEG)  
1-2/C 14

- |                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| INPLACE (SALVAGE) | 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)                      |
|                   | 2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG                                   |
| INPLACE (REMOVE)  | 2-R10-4b STICKER SIGNS AT 0/270 DEG                                      |
| F & I             | 2-LED COUNTDOWN TIMER PED INDICATIONS (P4-1, P6-2)                       |
|                   | PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS USED TO BE (AT 0/270 DEG) |

- INPLACE (SALVAGE) — 2-LED PED INDICATIONS (LEAVE HOUSING/VISOR INPLACE)  
2-PEDESTRIAN PUSH BUTTONS AT 0/270 DEG
- INPLACE (REMOVE) — 2-R10-4b STICKER SIGNS AT 0/270 DEG
- F & I — 2-LED COUNTDOWN TIMER PED INDICATIONS (P2-2, P8-1)  
1-APS PB, SIGN (RT ARROW) AND APS MAST ARM POLE ADAPTOR AT 0 DEG (PB2-2)  
PLUG HOLES ON MAST ARM POLE WHERE PUSH BUTTONS USED TO BE (AT 0/270 DEG)  
1-2/C 14

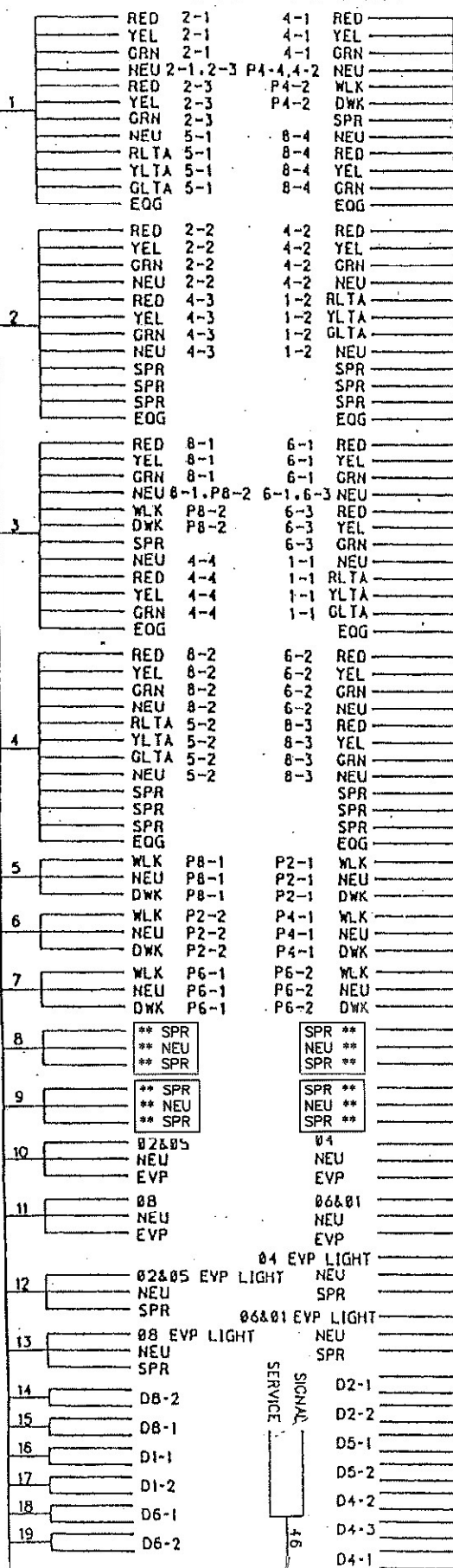
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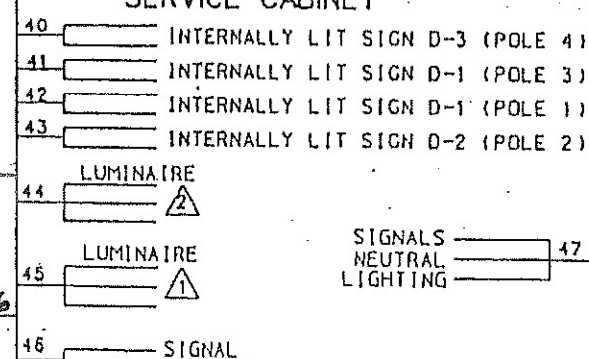
PHONE: (651) 490-2000  
3535 VADNAIS CENTER DR.  
ST. PAUL, MN 55110

FILE NO. ANOKC 122928	<div style="text-align: center;"> <div>63L</div> <div>94</div> </div>
SIGNAL SHEET 24 OF 35	

# CONTROLLER CABINET



# SERVICE CABINET



## CONDUCTOR COLOR CODING

R	BLK	2-1/CH10
O	WH	
BL		
W1	R	3/CH12
R/BLK	WH	
O/BLK	BLK	
BL/BLK		
WH/BLK	R OR O	3/CH20
BLK	WH OR YEL	BLK OR BL
BLK/WH		
G/BLK	BLK	2/CH14
G	CLEAR	
	BLK	
	GR	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

- ### REVISE SIGNAL SYSTEM F NOTES:
- 1) ALL CABLES AND CONDUCTORS, HANDHOLES, AND LOOP DETECTORS ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, EXCEPT AS OTHERWISE NOTED.
  - 2) ▲ DENOTES NEW CABLES & CONDUCTORS TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
  - 3) (\*\*) DENOTES NEW LABELING/TERMINATIONS ON INPLACE CABLES/CONDUCTORS IN POLE BASE AND IN CONTROLLER CABINET.