MADISON COUNTY and CITY OF RIDGELAND
TRAFFIC SIGNAL INSTALLATION
U.S. HWY. 51 AT RICE ROAD

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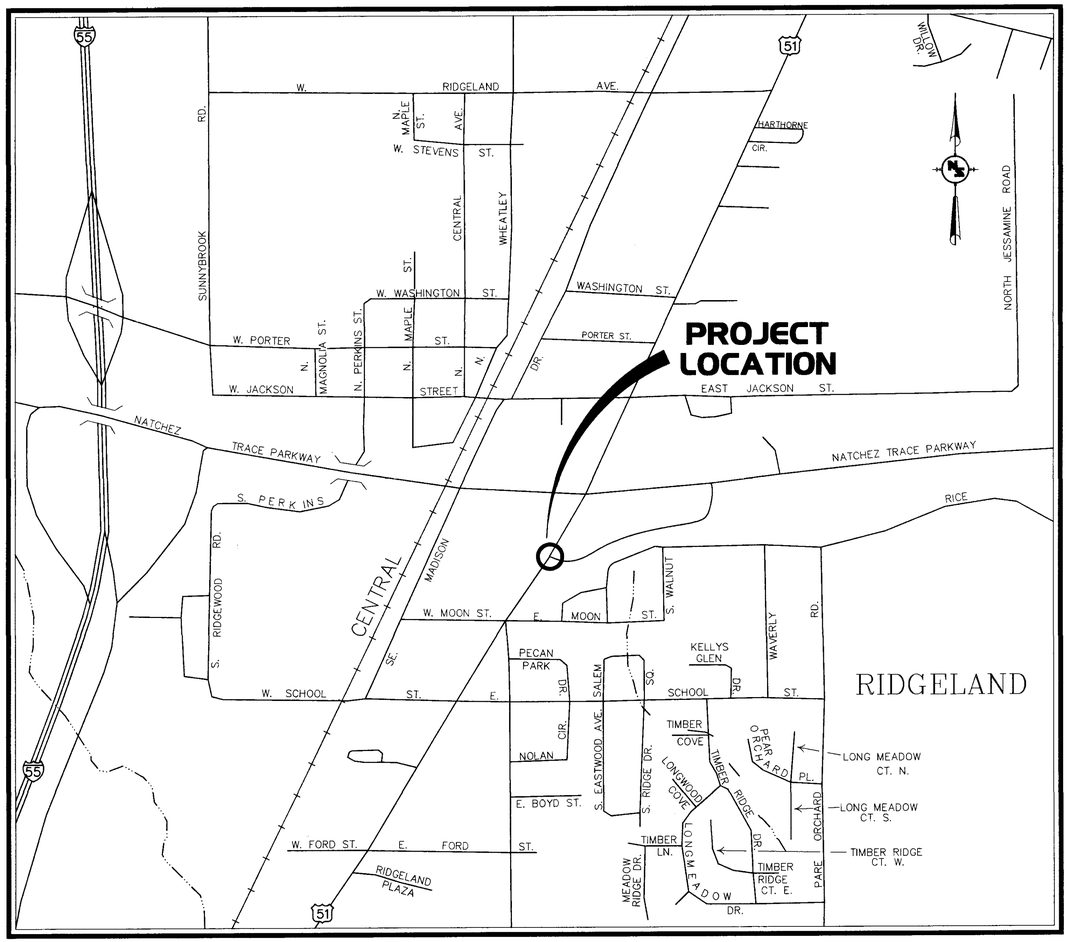
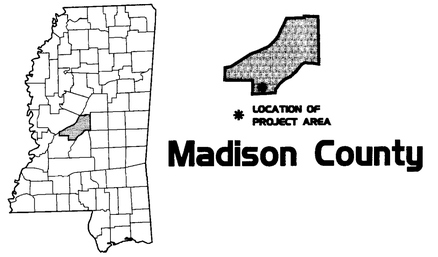
KOCHE-GATEWAY GAS
CITY OF RIDGELAND
CAPITOL CABLEVISION



VICINITY MAP
NOT TO SCALE

LOCATION MAP



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SEP 17 1998
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APPROVALS

Sam Vinson, P.E. Director
Department of Public Works
City of Ridgeland, Mississippi
Approved _____ Date _____

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi

FRANK L. O'KEEFE, JR. REGISTERED PROFESSIONAL ENGINEER #11097 STATE OF MISSISSIPPI

Approved _____ Date 9/16/98
FRANK L. O'KEEFE, Jr. P.E.
Mississippi License No. 11097

PWP-00842

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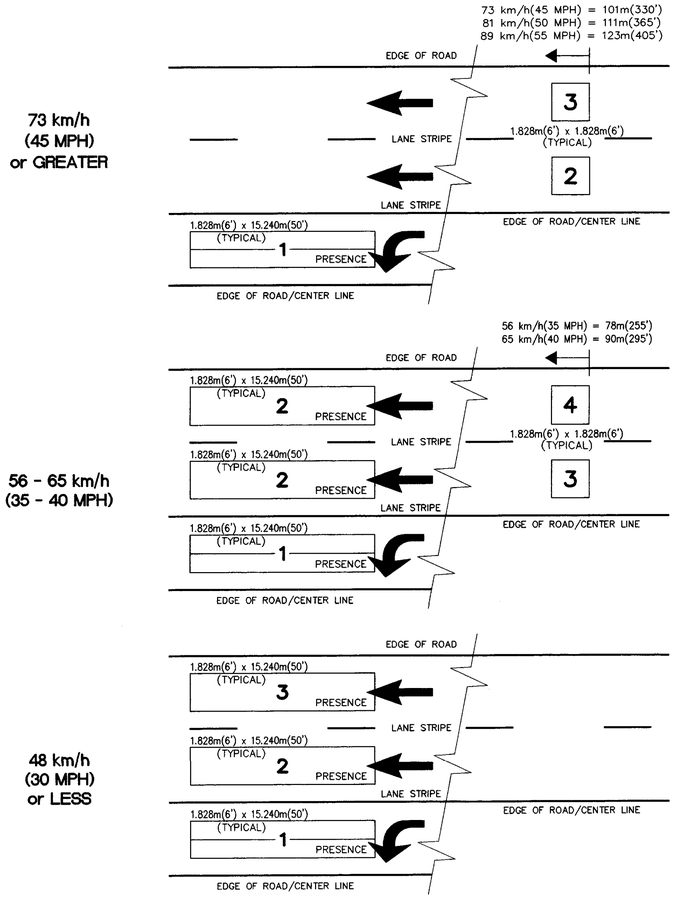
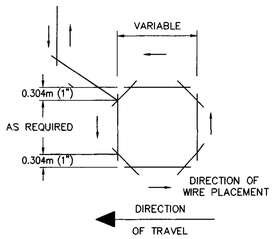


TYPICAL LOOP DETECTOR PLACEMENT DIAGRAM

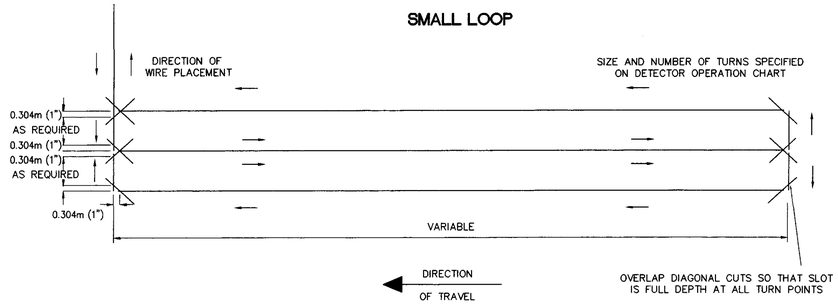
3 = CHANNEL NUMBER

AMP 1–ø2, AMP 2–ø4, AMP 3–ø6, AMP 4–ø8

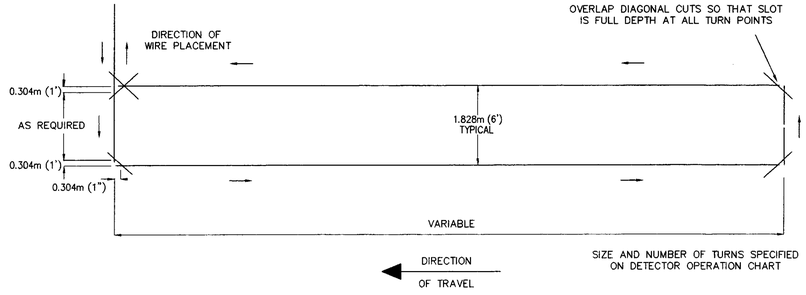
km/h(MPH) IS BASED ON SPEED LIMIT
ALL DISTANCES FROM STOPLINE



SMALL LOOP



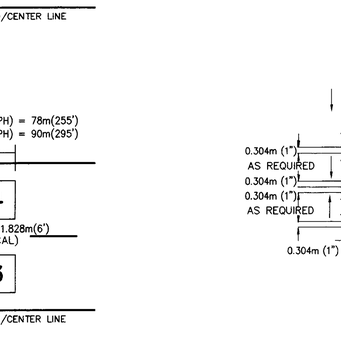
QUADRAPOLE LOOP



RECTANGULAR LOOP

SAW CUT DIAGRAM

THREE LANE COVERAGE



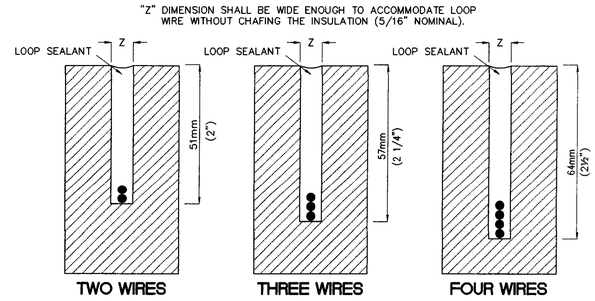
TWO LANE COVERAGE

ONE LANE COVERAGE

"X" DIMENSION SPECIFIED ON PLANS

PROBE DETECTOR

TYPICAL LOOP DETECTOR LANE COVERAGE DIAGRAM



SAW SLOT DETAIL

SAW SLOT AND LOOP WIRE INSTALLATION PROCEDURES

1. CONCRETE PAVEMENT JOINTS SHALL NOT BE USED FOR EITHER LOOP OR FEEDER WIRE. NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT. NO MANHOLES, INLETS, VALVES, ETC. MAY BE LOCATED WITHIN A LOOP. IF JOINTS OR MANHOLES ARE ENCOUNTERED, THE LOCATION OF THE LOOP MAY BE VARIED SLIGHTLY AS DIRECTED BY THE ENGINEER. IF THE JOINTS OR MANHOLES ARE UNAVOIDABLE, SMALLER LOOPS, THE SIZE TO BE DETERMINED BY THE ENGINEER, MAY BE USED INSTEAD OF ONE LARGER LOOP AND SHALL PROVIDE THE SAME AREA OF COVERAGE AS THE LARGE LOOP. THE SMALLER LOOPS USED TO REPLACE THE ONE LARGE LOOP MAY BE CONNECTED TO ONE DETECTOR AMPLIFIER.
2. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE "WOULD–BE" RIGHT ANGLE SHALL NOT OVERLAP.
3. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE ANGLES APPROXIMATELY 45° SHALL OVERLAP THE SLOTS IT CONNECTS. THIS IS TO INSURE FULL DEPTH OF SLOTS AT BENDS OR CORNERS.
4. ALL CORNERS OF THE LOOP SHALL BE CUT AT A 45° ANGLE AND HAVE A MINIMUM DIAGONAL LENGTH OF 406mm(16").
5. SAW CUTS IN THE PAVEMENT SHALL BE FLUSHED WITH CLEAN WATER UNDER SUFFICIENT PRESSURE TO REMOVE MUD AND SMALL DEBRIS. SAW CUTS SHALL THEN BE DRIED AND CLEANED OF ALL DEBRIS BEFORE INSTALLING THE LOOP WIRE.
6. ONE CONTINUOUS, UNBROKEN LENGTH OF WIRE SHALL BE USED TO FORM A LOOP OF THE NUMBER OF TURNS AS SPECIFIED IN THE PLANS. THE CONTINUOUS RUN SHALL BE FROM THE PULLBOX/CONDULET INCLUDING THE LOOP AND RETURN.
7. ALL WIRE SHALL BE PUSHED INTO THE SAW CUT WITH WOOD STICKS TO INSURE THE INSULATION IS NOT DAMAGED. THE USE OF METAL TOOLS IS NOT PERMITTED.
8. SPLICE BETWEEN LEAD–IN AND SHIELDED CABLE REQUIRED IN PULLBOX OR CONDULET. ALL SPLICES IN THE LEAD–IN WIRE SHALL BE MADE ONLY IN THE PULLBOX OR CONDULET. ALL SPLICES MUST BE CAREFULLY MADE TO INSURE CONSTANT LOW RESISTANCE AND MUST BE INSULATED IN SUCH A MANNER THAT UNDER THE LOCAL PREVAILING CONDITIONS THE NSTALLATION MAINTAINS A RESISTANCE TO GROUND OF NOT LESS THAN 5 MEGOHMS. TO INSURE CONSISTENT LOW RESISTANCE CONNECTIONS, THE SPLICES SHALL BE SOLDERED WITH RESIN FILLED SOLDER AND WATERPROOFED BY SHRINK WRAP OR BY OTHER METHOD APPROVED BY THE ENGINEER. OPEN FLAME SOLDER SHALL NOT BE PERMITTED.
9. WHERE THE WIRES LEAVE THE LOOP, EACH PAIR OF LEAD–IN WIRES MUST BE TWISTED TOGETHER WITH A MINIMUM OF THREE TWIST PER 0.304m (FOOT).
10. IF THE LEAD–IN IS TAKEN OVERHEAD THE WIRE MUST BE PROTECTED BY CONDUIT (TYPE I) FROM UNDERGROUND TO SPAN.
11. WHEN A PULLBOX IS NOT USED IN THE LEAD–IN (THE WIRE WHICH CONNECTS THE SENSING LOOP TO THE DETECTOR AMPLIFIER), THE LOOP WIRE SHALL BE TWISTED A MINIMUM OF THREE TWIST PER 0.304m (FOOT) FROM THE LOOP TO THE DETECTOR AMPLIFIER.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

STANDARD SIGNAL DETAILS
VEHICLE LOOP
DETECTOR ASSEMBLY

CITY OF RIDGELAND AND MADISON COUNTY
BOARD OF SUPERVISORS

DSGN: G.P.	7/97	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-SIG2
DRWN: B.G.B.	7/97		DRAWING NO.
CHKD: K.O.	7/97		SIG-2
SCALE: N.T.S.			

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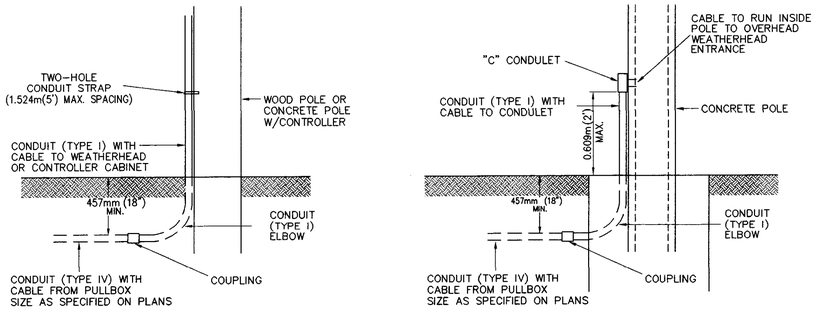
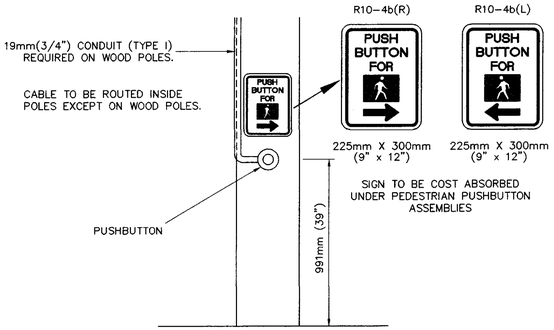
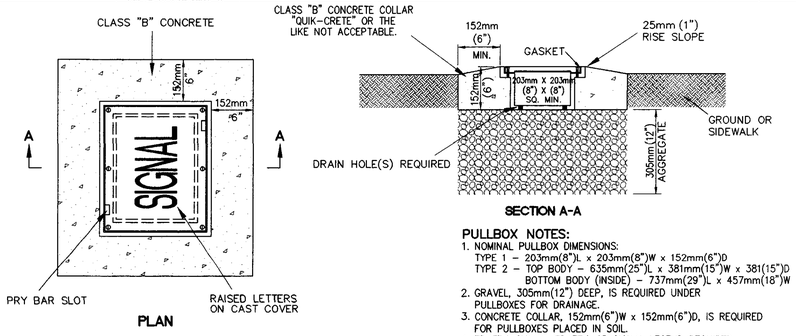


CONDUIT DETAIL AT POLES



PEDESTRIAN PUSH BUTTON AND SIGN INSTALLATION DETAIL

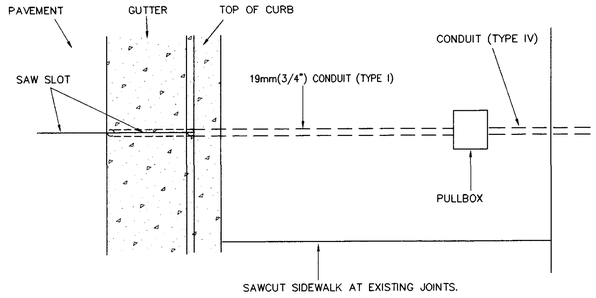


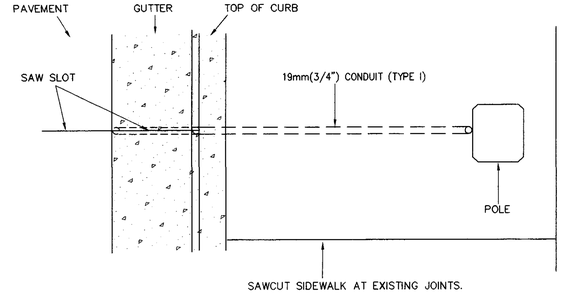
PULLBOX NOTES:

1. NOMINAL PULLBOX DIMENSIONS:
   TYPE 1 – 203mm(8")L x 203mm(8")W x 152mm(6")D
   TYPE 2 – TOP BODY – 635mm(25")L x 381mm(15")W x 381(15")D
   BOTTOM BODY (INSIDE) – 737mm(29")L x 457mm(18")W
2. GRAVEL, 305mm(12") DEEP, IS REQUIRED UNDER PULLBOXES FOR DRAINAGE.
3. CONCRETE COLLAR, 152mm(6")W x 152mm(6")D, IS REQUIRED FOR PULLBOXES PLACED IN SOIL.
4. TRAFFIC SIGNAL, TRAFFIC OR SIGNAL LEGEND REQUIRED.
5. COVERS SHALL BOLT DOWN.

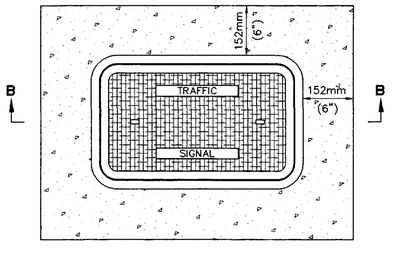
TWO-PIECE PULLBOX (TYPE 1)

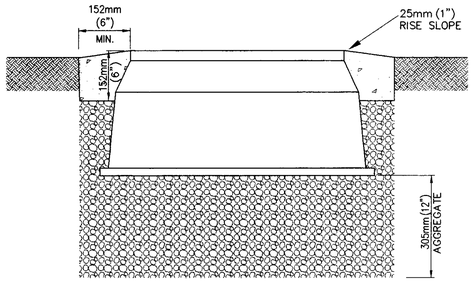
CAST IRON, CAST ALUMINUM, WELDED ALUMINUM, OR APPROVED EQUAL





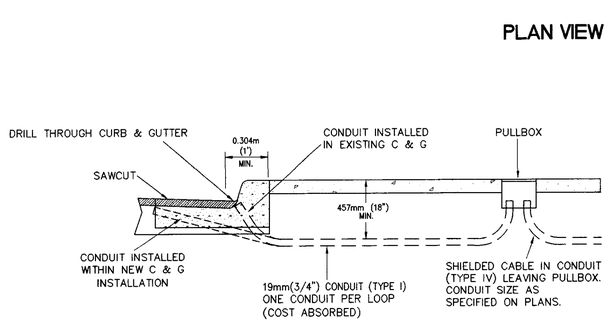
PLAN VIEW - LOOP LEAD-IN CONDUIT

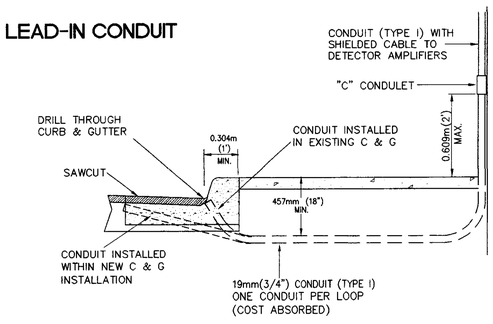




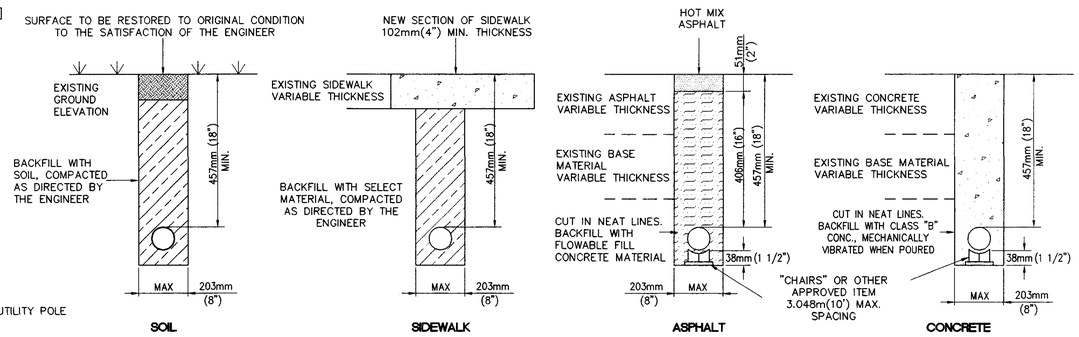
TWO-PIECE PULLBOX (TYPE 2)

PRECAST CLASS "B" CONCRETE, HIGH DENSITY POLYETHYLENE, COMPOSOLITE, OR APPROVED EQUAL

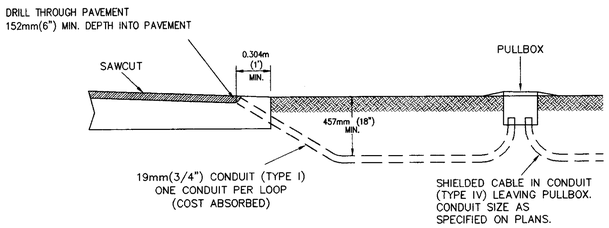


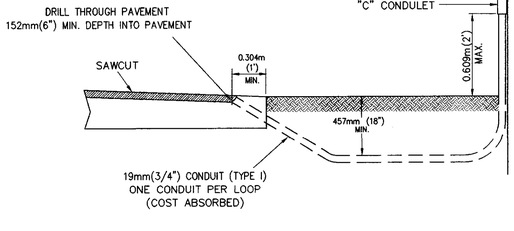


TYPICAL SECTION IN GUTTER AND SIDEWALK



CONDUIT TRENCHING DETAIL





TYPICAL SECTION IN EARTH

NOTES :

1. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED.
2. SAWCUT SIDEWALK AT EXISTING JOINTS AND REPLACE ENTIRE SECTION TO MATCH EXISTING MATERIAL. WHEN NEW SIDEWALK IS BEING CONSTRUCTED, CONDUIT, PULLBOX, AND POLE ARE TO BE INSTALLED BEFORE SIDEWALK IS POURED.
3. ALL REMOVAL AND REPLACEMENT OF SOD, SIDEWALK, ASPHALT AND CONCRETE, AND BACKFILL ARE COST ABSORBED AND CONSIDERED PART OF COST OF THE CONDUIT. (PAY ITEM NUMBER 907-668).
4. TYPE I CONDUIT IS RIGID STEEL; TYPE IV CONDUIT IS PVC.
5. CONDUIT MAY BE TRENCHED OR JACKED. ELECTRICAL SUBCONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WORK UNDER ROADWAY WITH ROADWAY CONSTRUCTION PHASING IN ORDER TO MINMIZE JACKING\TRENCHING. ALL CONDUIT TRENCHING MUST BE COMPLETED BEFORE PLACEMENT OF FINAL ASPHALT SURFACE COURSE.
6. 2" WIDE – 0.35" THICK METALLIC DETECTION TAPE TO BE BURIED WITH ALL TRENCHED FIBER OPTIC CABLE AT A DEPTH OF 4-6". THE COST IS TO ABSORBED UNDER THE COST OF THE CONDUIT. (PAY ITEM NUMBER 907-668). THE TAPE SHALL READ: "CAUTION FIBER OPTIC CABLE".

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

STANDARD SIGNAL DETAILS CONDUIT, PULLBOX, TRENCHING AND PEDESTRIAN PUSHBUTTON

CITY OF RIDGELAND AND MADISON COUNTY BOARD OF SUPERVISORS

DSGN: G.P.	7/97	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-SIG3
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CHKD: K.O.	7/97		
SCALE: N.T.S.			

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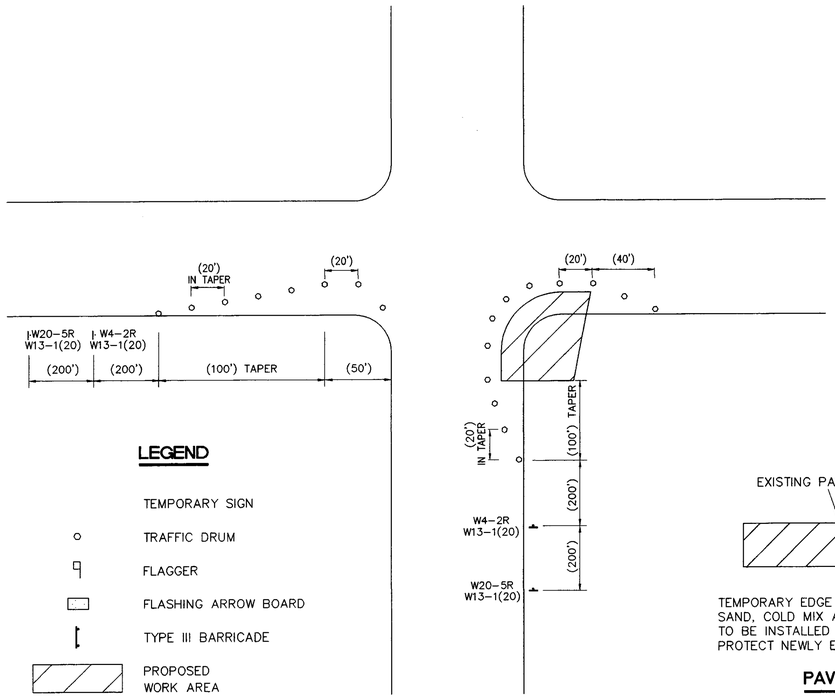
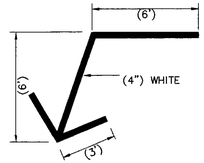
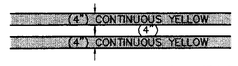


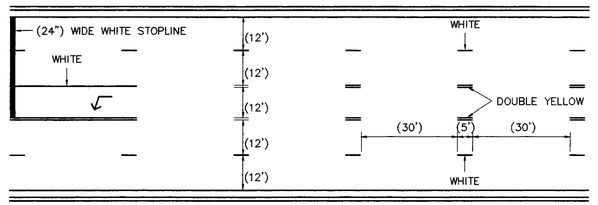
TYPICAL TRAFFIC CONTROL FOR RIGHT-LANE CLOSURE AT INTERSECTION



TEMPORARY LEFT TURN ARROW DETAIL

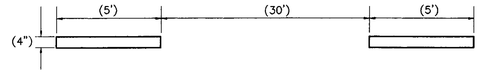


TEMPORARY SOLID DOUBLE YELLOW CENTERLINE STRIPE

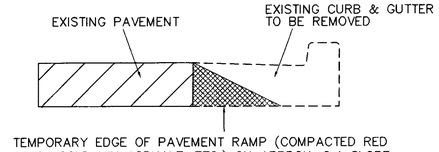


TYPICAL TEMPORARY PAVEMENT MARKINGS

(SEE NOTES 2 AND 3)

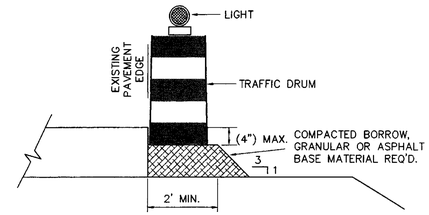


LINE SPACING TEMPORARY SKIP YELLOW CENTERLINE STRIPE OR WHITE LANE LINE STRIPE



TEMPORARY EDGE OF PAVEMENT RAMP (COMPACTED RED SAND, COLD MIX ASPHALT, ETC.) ON APPROX. 2:1 SLOPE. TO BE INSTALLED AT THE END OF EACH WORK DAY TO PROTECT NEWLY EXPOSED EDGE OF PAVEMENT DROP-OFF.

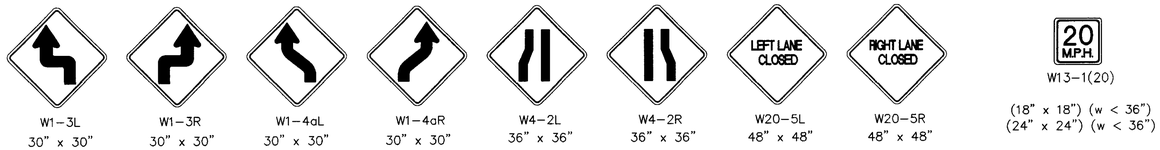
PAVEMENT RAMP DETAIL



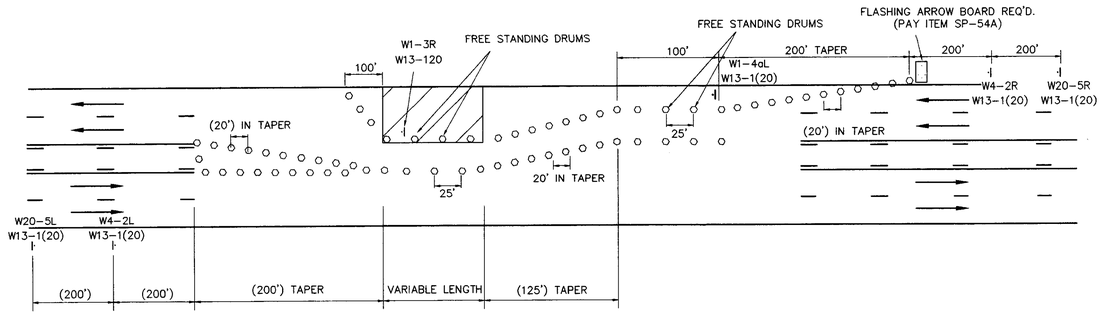
DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING

DRUMS REQUIRED WHERE WORK ZONE INCLUDES UNDERCUT SHOULDER AND REMOVAL OF CURB & GUTTER. DRUMS TO BE PLACED AS SHOWN IN DETAIL, LEFT FOR NIGHT TIME OPERATION OR SUSPENSIONS OF WORK. COST TO BE ABSORBED (PAY ITEM SP 54-A).

SIGNS



W1-3L 30" x 30"
W1-3R 30" x 30"
W1-4aL 30" x 30"
W1-4aR 30" x 30"
W4-2L 36" x 36"
W4-2R 36" x 36"
W20-5L 48" x 48"
W20-5R 48" x 48"
W13-1(20) (18" x 18") (w < 36") (24" x 24") (w < 36")



TRAFFIC CONTROL DURING OVERLAY OPERATIONS AND INSTALLATION OF STORM SEWER

GENERAL NOTES

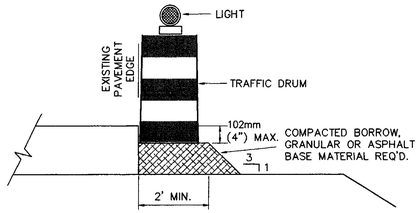
1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY RIDING SURFACE IN SATISFACTORY CONDITION AND REMOVING ALL MATERIALS REQUIRED FOR TEMPORARY LANE ASSIGNMENTS, UNLESS OTHERWISE NOTED.
2. TEMPORARY PAVEMENT MARKINGS AS REQUIRED FOLLOWING APPLICATION OF THE BASE COURSE IN NEW CONSTRUCTION OR RECONSTRUCTION AREAS SHALL COMPLIMENT THE PAVEMENT MARKING PLANS. TEMPORARY MARKINGS DO NOT INCLUDE LEGENDS AND CROSS-WALKS. THEY DO INCLUDE LANE LINES, STOP-LINES, TEMPORARY ARROWS AND GORES.
3. TEMPORARY PAVEMENT STRIPING (SEMI-PERMANENT FILM OR TAPE) SHALL BE EASY TO REMOVE WITHOUT DAMAGING THE FINAL SURFACE COURSE.
4. TAPER LENGTHS SHOWN ARE FOR A 32.2km/h (20 MPH) SPEED.
5. CONTRACTOR SHALL COORDINATE RELOCATION AND ADJUSTMENTS TO TRAFFIC SIGNAL SYSTEMS WITH CITY TRAFFIC ENGINEERING DIVISION. CITY WILL ADJUST ALL TRAFFIC SIGNALS.
6. SIGNS SHOWN ON PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.
7. TEMPORARY STRIPING SHALL BE PROVIDED IN ACCORDANCE WITH THE FINAL PAVEMENT STRIPING PLAN FOLLOWING APPLICATION OF EACH 91.44m (300) FEET OF ASPHALT BASE.
8. IN ORDER TO MINIMIZE LANE CLOSURES, WORK WILL BE SCHEDULED IN ORDER TO CLOSE ONLY A SINGLE LANE OF TRAFFIC, BUT AS A MINIMUM, ONE LANE OF TRAFFIC WILL ALWAYS BE OPEN IN EACH DIRECTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO CLOSURE OF MORE THAN ONE TRAFFIC LANE.
9. THE CONTRACTOR SHALL USE CONCRETE BARRIERS TO SEPARATE ADJACENT TRAFFIC FROM CONSTRUCTION AREAS WHERE THE UNDERCUT IS 6m (2'-0") OR GREATER IN DEPTH. FOR SHALLOWER AREAS THE CONTRACTOR MAY MAY USE THE DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING DETAIL (SHOWN AT RIGHT) TO PROTECT THE EDGE OF PAVEMENT DROP-OFF. THE DRUM PLACEMENT IS REQUIRED UNTIL THE NEW CONSTRUCTION IS WITHIN FOUR 4 INCHES OF EXISTING PAVEMENT.
10. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ECT., TO SAFELY CHANNEL TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES. (FLAGGER AHEAD SIGN REQUIRED EXCEPT DURING BRIEF PERIODS OR EMERGENCY SITUATIONS).
11. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND BE REMOVED IMMEDIATELY THEREAFTER.
12. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL", LATEST EDITION.
13. THESE ARE THE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

TRAFFIC CONTROL STANDARDS

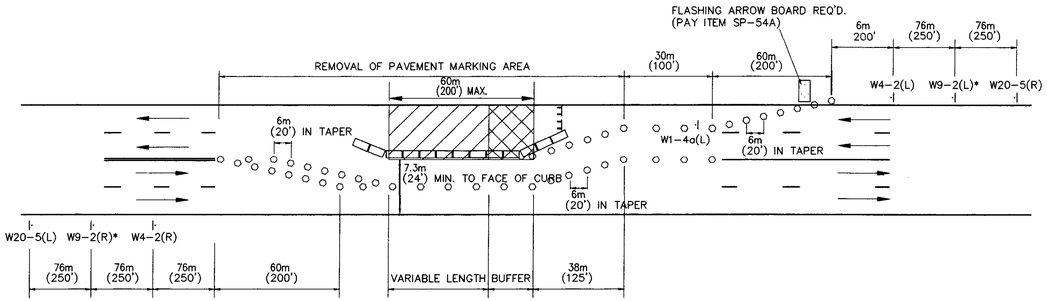
CITY OF RIDGELAND AND MADISON COUNTY
BOARD OF SUPERVISORS

DSGN: G.P.	3/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-TC1
DRWN: B.G.B.	3/98		DRAWING NO. STD-TC1
CHKD: K.O.	3/98		
SCALE: N/A			

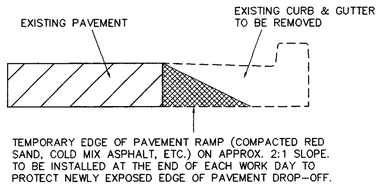


DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING

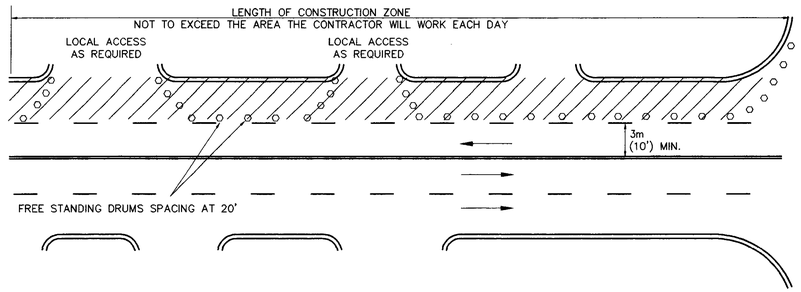
DRUMS REQUIRED WHERE WORK ZONE INCLUDES UNDERCUT SHOULDER AND REMOVAL OF CURB & GUTTER. DRUMS TO BE PLACED AS SHOWN IN DETAIL, LEFT FOR NIGHT TIME OPERATION OR SUSPENSIONS OF WORK. COST TO BE ABSORBED (PAY ITEM SP 54-A).



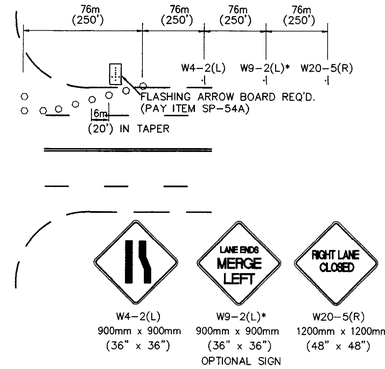
TRAFFIC CONTROL FOR DRAINAGE WORK



PAVEMENT RAMP DETAIL



TYPICAL CURB LANE CLOSURE



W4-2(L) 900mm x 900mm (36" x 36")

W9-2(L)* 900mm x 900mm (36" x 36") OPTIONAL SIGN

W20-5(R) 1200mm x 1200mm (48" x 48")

GENERAL NOTES

1. PAVEMENT MARKINGS NO LONGER APPLICABLE, WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS, SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICAL. REMOVAL OF PAVEMENT MARKINGS WILL BE PAID FOR UNDER BID ITEM NO. SP-54A.
2. TEMPORARY MARKINGS ON ALL SURFACES EXCEPT ON THE FINAL WEARING SURFACE MAY BE PAINTED.
3. IN ORDER TO MINIMIZE LANE CLOSURES, WORK WILL BE SCHEDULED IN ORDER TO CLOSE ONLY A SINGLE LANE OF TRAFFIC, BUT AS A MINIMUM, ONE LANE OF TRAFFIC WILL ALWAYS BE OPEN IN EACH DIRECTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO CLOSURE OF MORE THAN ONE TRAFFIC LANE.
4. DURING THE TIME A SIDE STREET HAS TO BE CLOSED, THE CONTRACTOR SHALL INSTALL THE APPROPRIATE DETOUR SIGNING AND BARRICADES. THE CONTRACTOR SHALL NOT CLOSE MORE THAN ONE SIDE STREET AT ANY ONE TIME, UNLESS DIRECTED SO BY THE ENGINEER.
5. CONTRACTOR SHALL PROVIDE ACCESS TO ADJACENT BUSINESSES AND HOMES AT ALL TIMES. CONTRACTOR IS REQUIRED TO NOTIFY BUSINESSES, HOMEOWNERS AND ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ANY ACCESS RESTRICTIONS.
6. THE CONTRACTOR SHALL USE CONCRETE BARRIERS TO SEPARATE ADJACENT TRAFFIC FROM CONSTRUCTION AREAS WHERE THE UNDERCUT IS 6m (2'-0") OR GREATER IN DEPTH. FOR SHALLOWER AREAS THE CONTRACTOR MAY MAY USE THE DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING DETAIL (SHOWN AT RIGHT) TO PROTECT THE EDGE OF PAVEMENT DROP-OFF. THE DRUM PLACEMENT IS REQUIRED UNTIL THE NEW CONSTRUCTION IS WITHIN FOUR 102mm (4 INCHES) OF EXISTING PAVEMENT.
7. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ECT., TO SAFELY CHANNEL TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES. (FLAGGER AHEAD SIGN REQUIRED EXCEPT DURING BRIEF PERIODS OR EMERGENCY SITUATIONS).
8. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND BE REMOVED IMMEDIATELY THEREAFTER.
9. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL", LATEST EDITION.
10. THESE ARE THE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

TRAFFIC CONTROL STANDARDS

CITY OF RIDGELAND AND MODISON COUNTY
BOARD OF SUPERVISORS

DSGN: G.P.	7/97	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-TC2
DRWN: B.G.B.	7/97		DRAWING NO. TC-2
CHKD: K.O.	7/97		
SCALE: N/A			

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SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	TOTAL	
			ESTIMATED	FINAL
907-635-A	VEHICLE LOOP ASSEMBLIES	L. F.	508	
907-638-A	LOOP DETECTOR AMPLIFIER, CARD RACK MOUNTED (4-CHANNEL)	EACH	2	
907-637-B	ALT. A - SPECIAL ORNAMENTAL POLE (SINGLE 50' MAST ARM), (18' SHAFT)	EACH	1	
907-637-B	ALT. A - SPECIAL ORNAMENTAL POLE (DOUBLE 50' MAST ARMS), (18' SHAFT)	EACH	1	
907-639-B	ALT. B - STANDARD STEEL TRAFFIC SIGNAL & EQUIPMENT POLE (SINGLE 50' MAST ARM), (28' SHAFT) (PER PLANS)	EACH	1	
907-639-B	ALT. B - STANDARD STEEL TRAFFIC SIGNAL & EQUIPMENT POLE (DOUBLE 50' MAST ARMS), (28' SHAFT))PER PLANS)	EACH	1	
907-640	TRAFFIC SIGNAL HEADS (TYPE 1)	EACH	4	
907-640	TRAFFIC SIGNAL HEADS (TYPE 5)	EACH	1	
907-640	TRAFFIC SIGNAL HEADS (TYPE 7)	EACH	1	
907-642-C	SOLID STATE TRAFFIC ACTUATED CONTROLLERS, TYPE 3, W/ TBC	EACH	1	
907-644-A	OPTICAL DETECTOR (1 EYE - 1 CHANNEL)	EACH	3	
907-644-B	OPTICAL DETECTOR CABLE	L. F.	551	
907-644-C	TRAFFIC SIGNAL PHASE SELECTOR (4 CHANNEL)	EACH	1	
907-647-A	PULLBOXES (TYPE 1)	EACH	2	
907-647-B	PULLBOXES (TYPE 2)	EACH	3	
907-653-A	TRAFFIC SIGN (ENCAPSULATED LENS)	S. F.	5	
907-653-B	STREET NAME SIGN (ENCAPSULATED LENS)	S. F.	26.6	
907-659	MAINTENANCE OF TRAFFIC SIGNALS	L. S.	1	
907-666-A	ELECTRIC CABLE IMSA 20-1, AWG #6, 2 COND.	L. F.	100	
907-666-A	ELECTRIC CABLE IMSA 20-1, AWG #10, 2 COND.	L. F.	313	
907-666-A	ELECTRIC CABLE IMSA 20-1, AWG #14, 7 COND.	L. F.	563	
907-666-B	SHIELDED CABLE, (4 COND.)	L. F.	838	
907-668-A	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND), (TRENCHED), (TYPE IV), (1")	L. F.	748	
907-668-A	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND), (TRENCHED), (TYPE IV), (2")	L. F.	123	
907-668-B	LIGHTING AND TRAFFIC SIGNAL CONDUIT (UNDERGROUND), (JACKED), (TYPE I) (2")	L. F.	190	

GENERAL NOTES (TRAFFIC SIGNAL)

1. All signs, signals, pavement markings and temporary traffic control devices are to conform to the Manual on Uniform Traffic Control Devices (1988 Edition and all subsequent revisions).
2. Underground utilities shown on plans are plotted in their approximate locations from the best information available to the Engineer. The Engineer does not guarantee their accuracy or guarantee that all utilities are shown. The Contractor shall be responsible for making for himself independent investigations, including subsurface investigations, as may be necessary.
3. All raised objects to be placed a minimum of 2' behind face of curb. New Traffic Signal Poles to be placed a minimum of 5' behind face of curb except where in conflict with utilities or Right-of-Way.
4. All poles, pullboxes, controllers, and pavement markings shall be field located by the Engineer and the Contractor at the nearest practical location indicated on the plan sheets.
5. Extend pole foundations to approximately ±3" above the shoulder elevation or the top of curb elevation.
6. Controller timings to be provided by the Engineer.
7. Contractor shall make the application for power service, coordinating with City Officials, in advance of requiring the electrical service.
8. All city poles (wood, concrete or steel) supporting existing traffic signal equipment to be completely removed by contractor. All detector cabinets and controller bases (unless noted on plans) are to be completely removed. All existing pole bases are to be removed a minimum of 6 inches below finish grade. (cost absorbed). Disturbed area to be restored to condition of surrounding area to the satisfaction of the engineer.
9. Loop detectors installed in new/milled asphalt are to be installed prior to final surface course being applied.
10. All traffic signal related equipment shall be provided in accordance with the Mississippi Standard Specification for Road And Bridge Construction, 1996 Edition, and the Mississippi Supplemental Specifications to the Standard Specifications For Road And Bridge Construction, Traffic Signals And Lighting, 1996 Edition.
11. The cost for Pay Item No. 907-642-C "Solid State Traffic Actuated Controllers, Type 3, W/TBC" shall include an extra conflict monitor to be delivered to the City of RIDGELAND Public Works Department.

FRANK L. O'KEEFE, JR. REGISTERED PROFESSIONAL ENGINEER #11097 STATE OF MISSISSIPPI

Approved _____ Date _____

FRANK L. O'KEEFE, JR. P.E.
Mississippi License No. 11097

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

SUMMARY OF QUANTITIES TRAFFIC SIGNAL INSTALLIATION AND GENERAL NOTES

MODISON COUNTY BOARD OF SUPERVISORS AND CITY OF RIDGELAND

DSGN: S.P.	3/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. 3072-Q
DRWN: B.G.B.	3/98		DRAWING NO. TCQ-1
CHKD: K.O.	3/98		
SCALE: N/A			

SHEET 2

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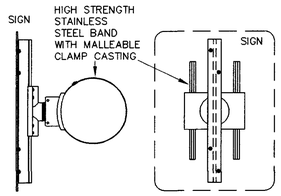
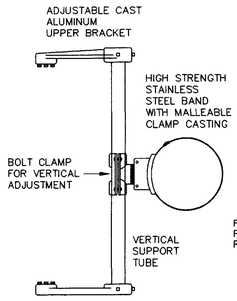


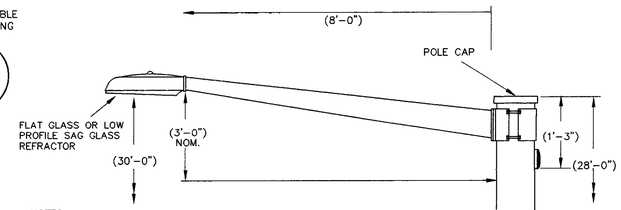
MAST ARM SIGN BRACKET (TYPICAL)



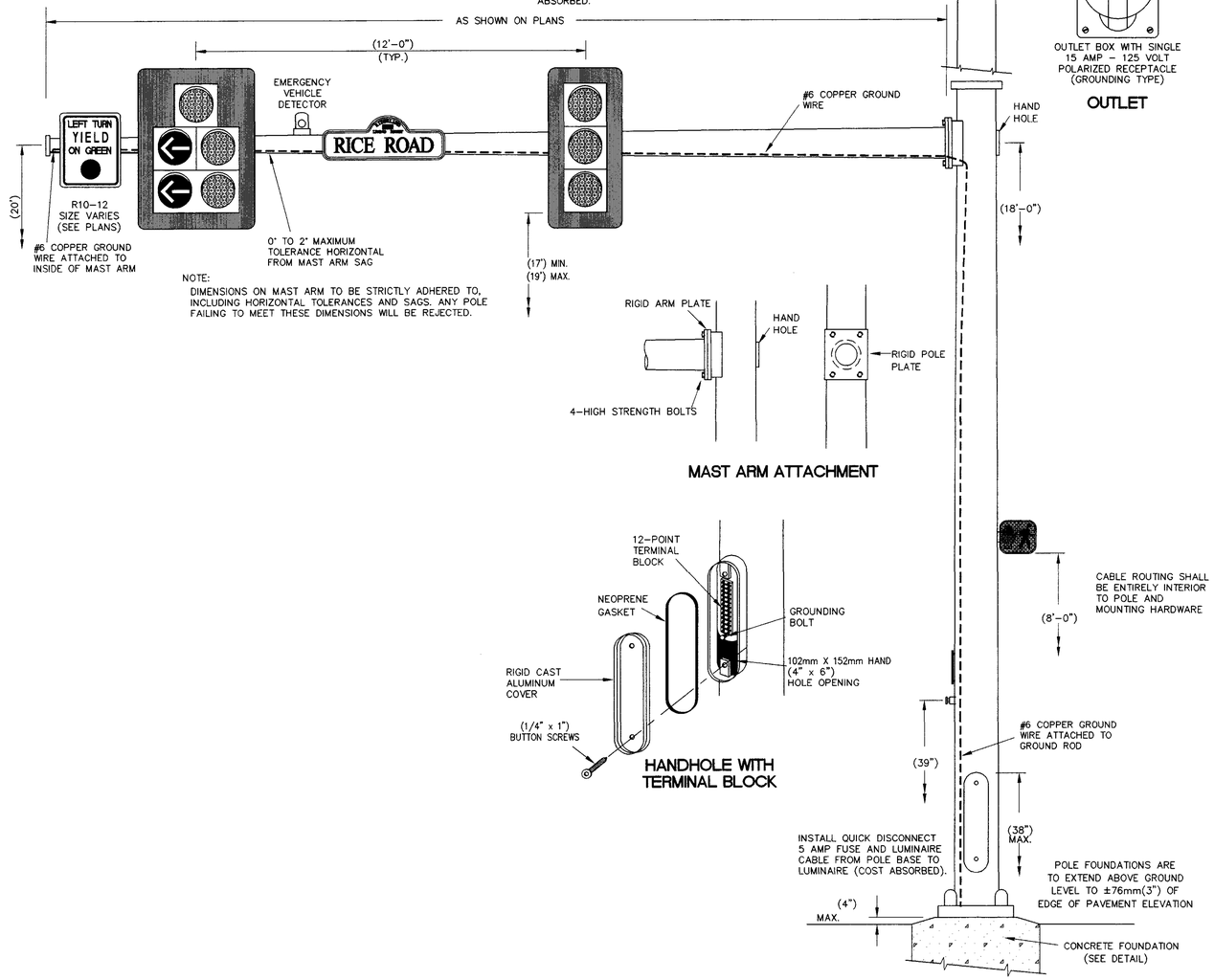
SIGNAL MOUNTING BRACKET (TYPICAL)

NOTES:
LUMINAIRE AND PHOTOELECTRIC CONTROL 250 WATT H.P.S. LIGHT FIXTURE WITH 250 WATT LAMPS AND PHOTO CELL TO BE PROVIDED BY THE CONTRACTOR. (COST ABSORBED)
LUMINAIRE CABLE FROM POLE TO FIXTURE SHALL BE COST ABSORBED.

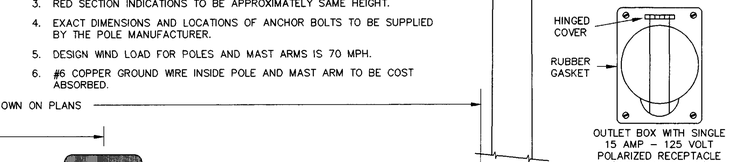
NOTES:
LUMINAIRE ARM SHALL BE "CLAMPED" ONTO STEEL SIGNAL POLE.



NOTES:
1. WIRE ENTRANCE TO MAST ARM WILL BE FIELD DRILLED TO CORRESPOND TO THE LOCATION OF THE SIGNAL HEADS WHEN ALIGNED IN THE FIELD.
2. ALL SIGNAL HEADS COLOR TO BE YELLOW FOR ALT. "A", BLACK FOR ALT "B".
3. RED SECTION INDICATIONS TO BE APPROXIMATELY SAME HEIGHT.
4. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE POLE MANUFACTURER.
5. DESIGN WIND LOAD FOR POLES AND MAST ARMS IS 70 MPH.
6. #6 COPPER GROUND WIRE INSIDE POLE AND MAST ARM TO BE COST ABSORBED.

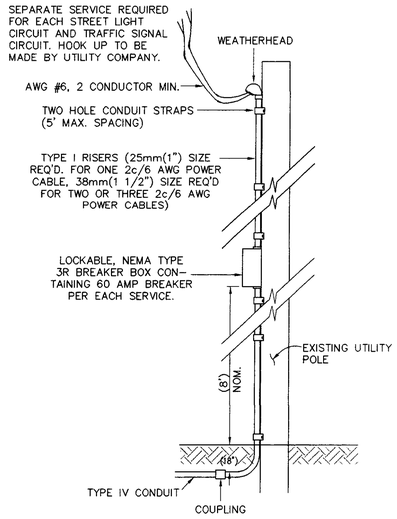


NOTE:
DIMENSIONS ON MAST ARM TO BE STRICTLY ADHERED TO, INCLUDING HORIZONTAL TOLERANCES AND SAGS. ANY POLE FAILING TO MEET THESE DIMENSIONS WILL BE REJECTED.



OUTLET

HANDHOLE WITH TERMINAL BLOCK



POWER SERVICE DETAIL

STEEL MAST ARM POLE DETAIL

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

STANDARD SIGNAL DETAILS MAST ARM SIGNAL POLES (ALT. A) AND CONTROLLER CABINET

CITY OF RIDGELAND AND MADISON COUNTY BOARD OF SUPERVISORS

DSGN: G.P.	6/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071
DRWN: B.G.B.	6/98	CAD REF. STD-SIGI
CHKD: K.O.	6/98	DRAWING NO. TS-1A
SCALE: N/A		

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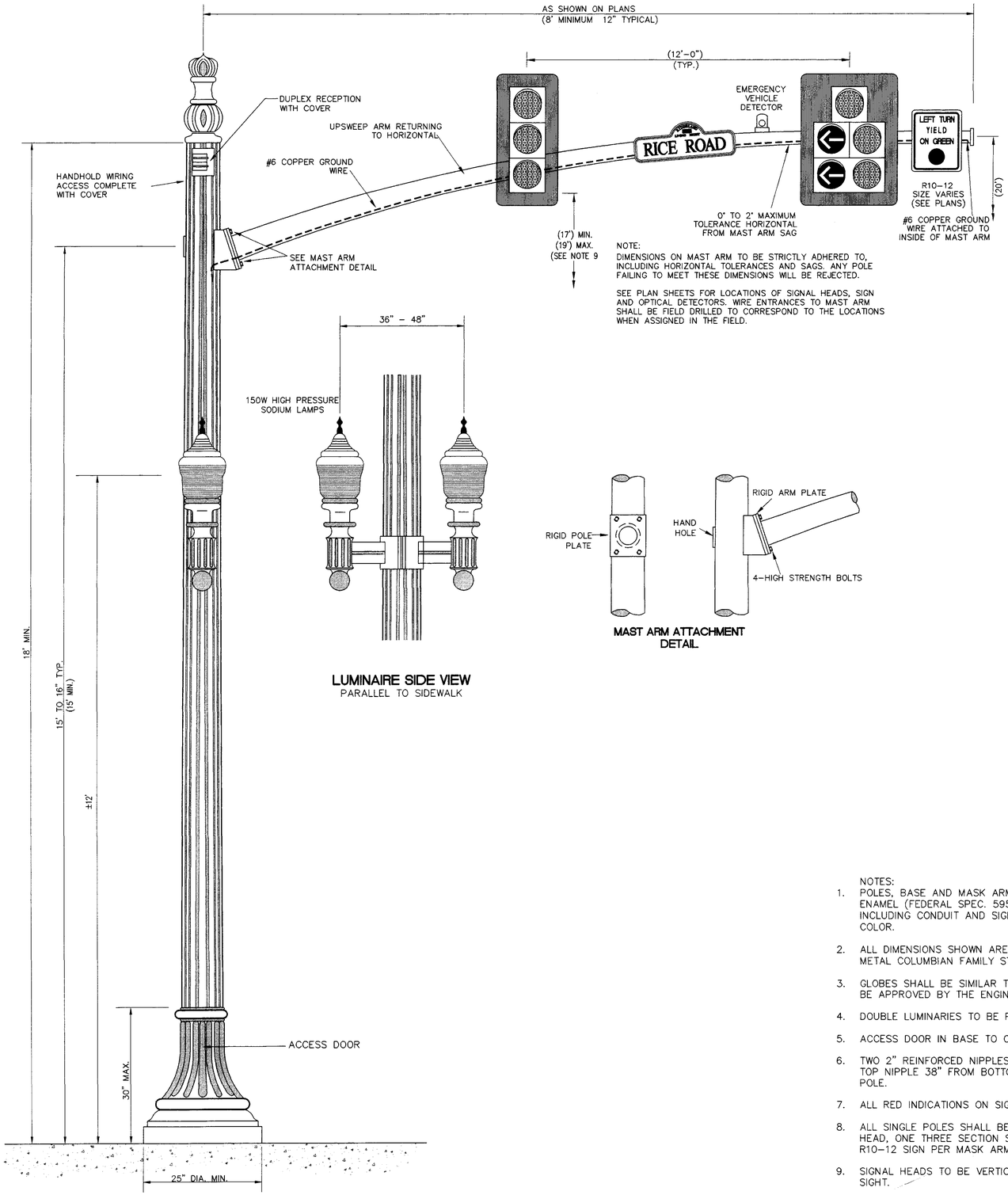
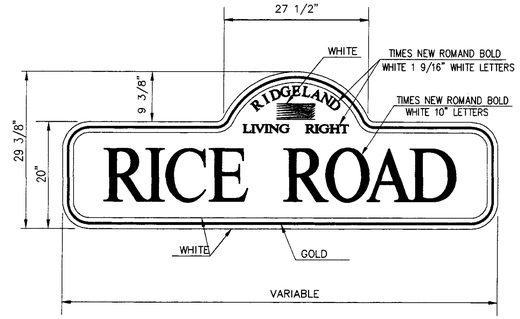


LUMINAIRE SIDE VIEW
PARALLEL TO SIDEWALK

MAST ARM ATTACHMENT DETAIL

DOUBLE MAST ARM POLE



STREET NAME SIGNS (TYPICAL)

THE SIGN BLANK SHALL BE A SINGLE PIECE OF SMOOTH CUT ALUMINUM FROM ASTM B-209 ALLOY 5052-H36, 5052-H38, 5154-H38 OR 6061-T6 SHEETS IN 0.125 INCH THICKNESS. THE ALUMINUM SHALL BE DEGREASED AND LIGHTLY ACID ETCHED BEFORE THE SIGN SHEETING IS APPLIED. THE SIGN SHEETING SHALL BE APPLIED TO THE PANELS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE RETROFLECTIVE SHEETING MANUFACTURER.

THE DECORATIVE STREET NAME SIGNS SHALL BE FINISHED ON BOTH SIDES. THE SIGN SHEETING MATERIAL SHALL BE REFLECTIVE ENCLOSED LINES (ENGINEER GRADE) CONFORMING TO FEDERAL SPECIFICATIONS FP92. THE COLORS OF THE DECORATIVE STREET NAME SIGNS SHALL MATCH THE EXISTING DECORATIVE STREET NAME SIGNS.

THE BACK OF THE STREET NAME SIGN ON THE NORTHEAST SIGNAL POLE HAVE THE SAME BROWN COLOR AS THE OTHER NATCHEZ TRACE ALUMINUM SHEETING IN THE AREA.

NOTES:

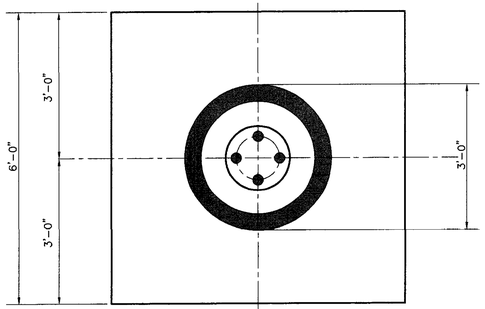
1. POLES, BASE AND MASK ARMS TO BE FINISHED PAINTED WITH BLACK SEMI ENAMEL (FEDERAL SPEC. 595B – COLOR 27038). ALL EXPOSED METAL SURFACES INCLUDING CONDUIT AND SIGNAL AND SIGN MOUNTING HARDWARE TO BE SAME COLOR.
2. ALL DIMENSIONS SHOWN ARE NOMINAL. POLE SHALL BE SIMILAR TO UNION METAL COLUMBIAN FAMILY STYLE. POLE DESIGN TO BE APPROVED BY ENGINEER.
3. GLOBES SHALL BE SIMILAR TO UNION METAL STYLE FP IC9 GLOBE STYLE SHALL BE APPROVED BY THE ENGINEER.
4. DOUBLE LUMINARIES TO BE POSITIONED PARALLEL TO SIDEWALK.
5. ACCESS DOOR IN BASE TO COIN SIDE WITH HANDHOLE IN SHAFT.
6. TWO 2" REINFORCED NIPPLES REQUIRED FOR POLES WITH CONTROLLER CABINETS. TOP NIPPLE 38" FROM BOTTOM OF POLE BOTTOM NIPPLE ±32" FROM BOTTOM OF POLE.
7. ALL RED INDICATIONS ON SIGNAL HEADS TO BE MOUNTED AT SAME HEIGHT.
8. ALL SINGLE POLES SHALL BE DESIGNED FOR ULTIMATE LOADING OF 5 SECTION HEAD, ONE THREE SECTION SIGNAL HEAD, ONE STREET NAME SIGN AND ONE R10-12 SIGN PER MASK ARM.
9. SIGNAL HEADS TO BE VERTICALLY ADJUSTED IN FIELD TO MAXIMIZE LINE OF SIGHT.
10. PROTECTIVE SHIPPING WRAPPING TO REMAIN ON POLE AND MAST ARM UNTIL ERECTION. METHOD OF ERECTION TO BE APPROVED BY THE ENGINEER.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

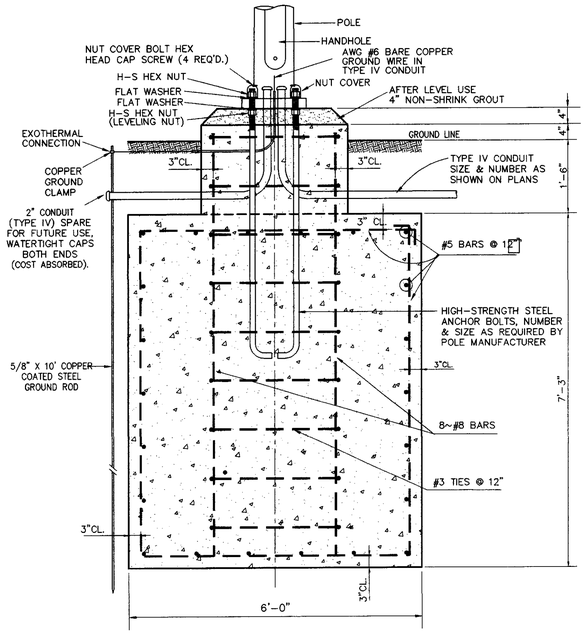
ORNAMENTAL POLE DETAIL (ALT. "B")

CITY OF RIDGELAND AND MADISON COUNTY
BOARD OF SUPERVISORS

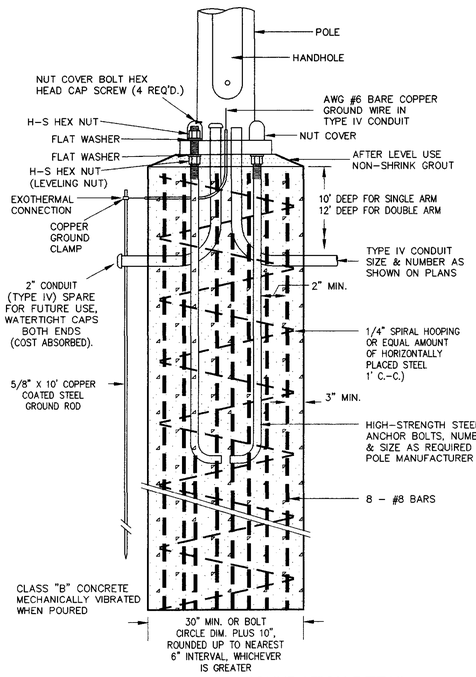
DSGN: G.P.	6/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-SIG1
DRWN: B.G.B.	6/98		DRAWING NO. TS-1B
CHKD: K.O.	6/98		
SCALE: N/A			



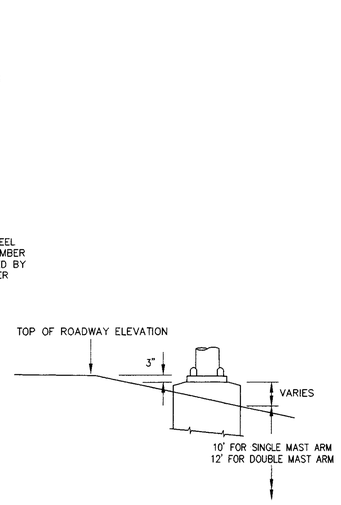
PLAN



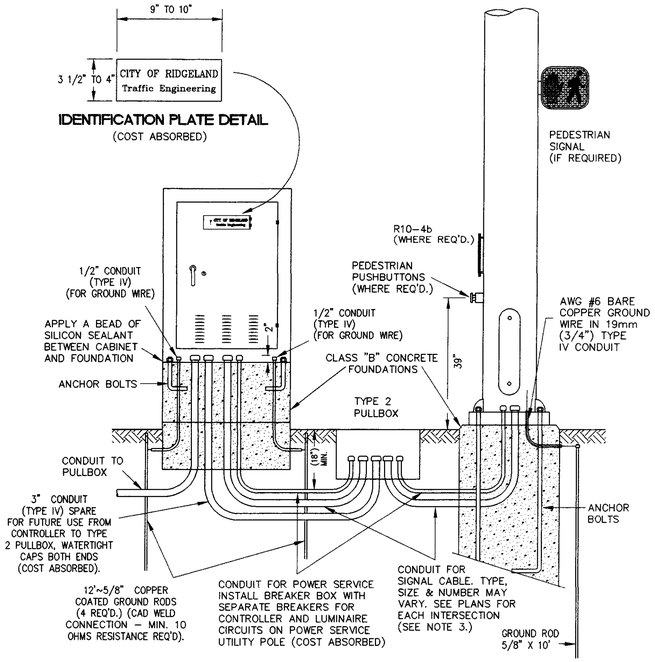
STEEL MAST ARM POLE FOUNDATION DETAIL
(FOR DOUBLE MAST ARM POLE)



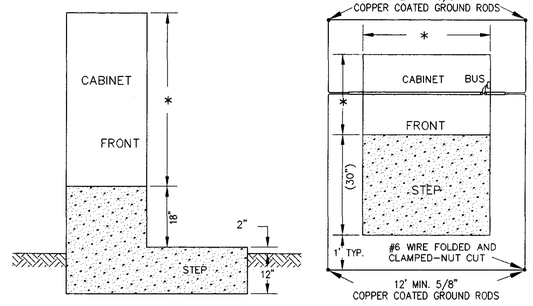
STEEL MAST ARM POLE FOUNDATION DETAIL
(FOR SINGLE MAST ARM POLE)



LOW SHOULDER FOUNDATION DETAIL



FRONT VIEW



SIDE VIEW TOP VIEW

CONTROLLER BASE DETAIL

* CABINET DIMENSIONS TO MEET SIGNAL CABINET MANUFACTURER'S SPECIFICATIONS.
NOMINAL DIMENSIONS : 8-PHASE - D=26", W=44", H=55"
4-PHASE - D=17", W=30", H=52"

GENERAL FOUNDATION NOTES

1. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE MANUFACTURER. ANY FOUNDATION FAILING TO MEET THESE DIMENSIONS WILL BE REJECTED.
2. TYPE IV CONDUIT TO BE RUN INTERNALLY FOR CONCRETE AND STEEL POLES; TYPE I CONDUIT RISERS REQUIRED FOR WOOD POLES.
3. DESIGN WIND LOAD FOR POLES SHALL BE 70 MPH.
4. FOUNDATIONS TO BE CLASS "B" CONCRETE, MECHANICALLY VIBRATED WHEN POURING.
5. MINIMUM STEEL POLE FOUNDATION SHALL BE 30" DIA. x 10' DEEP FOT SINGLE MAST ARM POLE.
6. #6 COPPER GROUND WIRE AND 5/8" DIA. COPPER GROUND ROD REQ'D. FOR ALL POLE FOUNDATIONS. (COST ABSORBED).

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

POLE AND CONTROLLER FOUNDATIONS

CITY OF RIDGELAND AND MADISON COUNTY
BOARD OF SUPERVISORS

DSGN: G.P.	6/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. STD-SIG1
DRWN: B.G.B.	6/98		DRAWING NO. TS-1C
CHKD: K.O.	6/98		
SCALE: N/A			