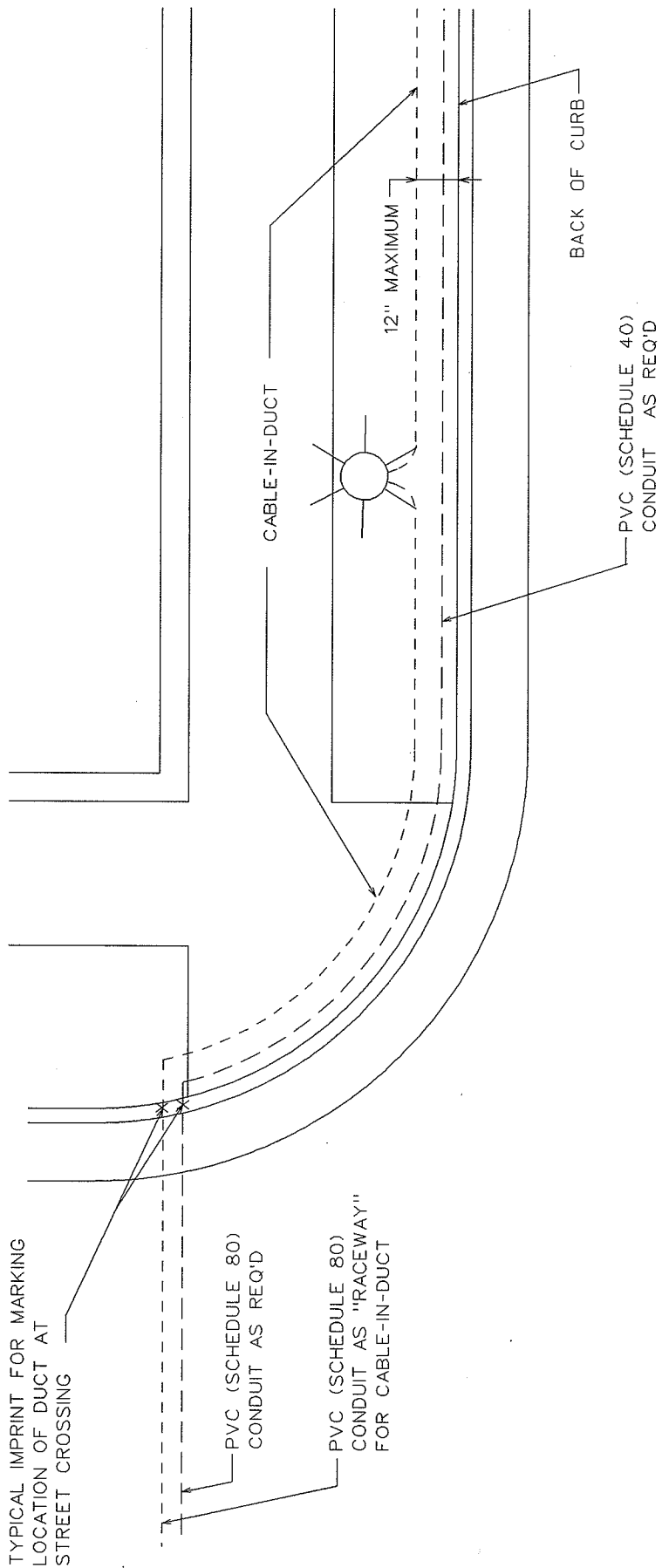


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

TYPICAL ELEVATIONS
FOR BASES

STANDARD DETAIL DRAWING 6.01



INSTALLATION DEPTH

UNDER ROADWAY 24" MINIMUM, 36" MAXIMUM

IN TERRACE OR UNDER SIDEWALK 30" MINIMUM, 36" MAXIMUM

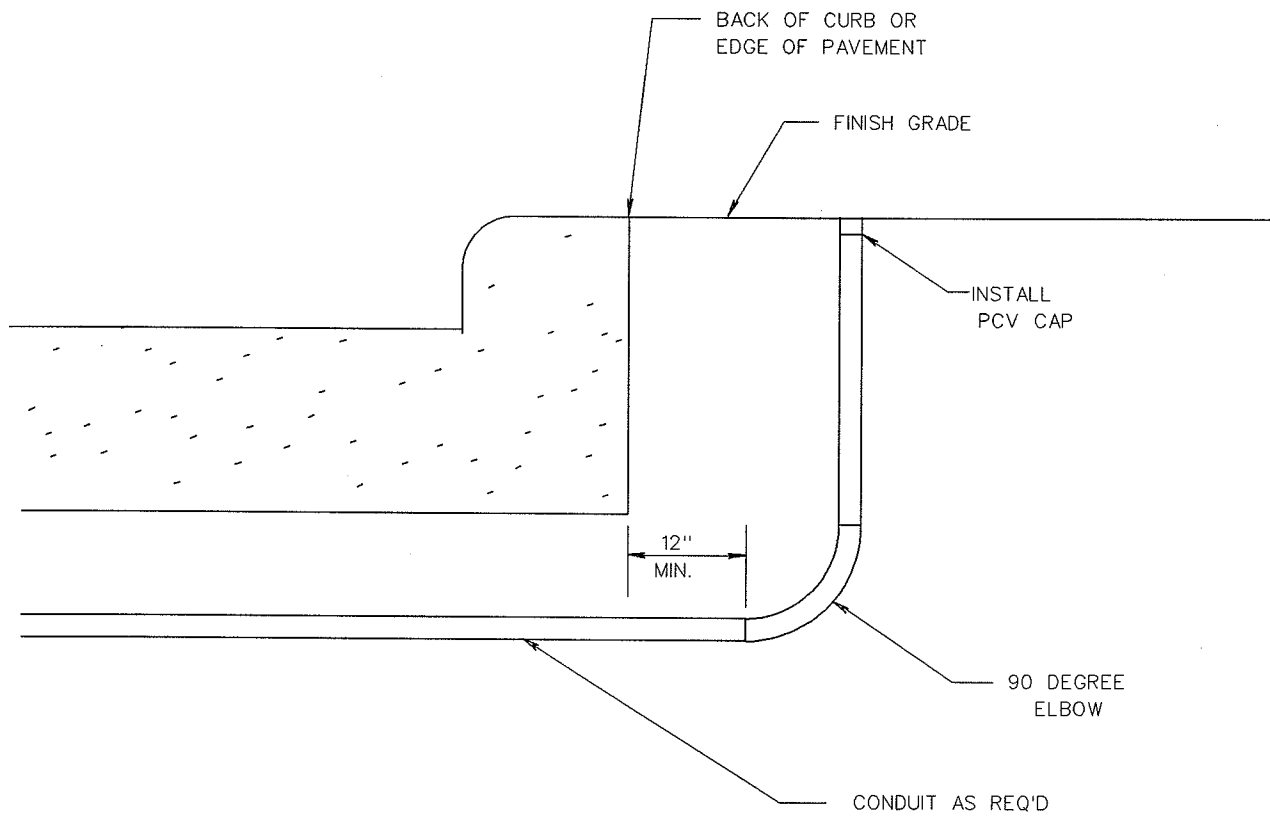
2004

CITY OF MADISON

TRAFFIC ENGINEERING DIVISION

**TYPICAL PLAN VIEW
OF DUCT INSTALLATION
& DUCT IMPRINT LOCATION**

STANDARD DETAIL DRAWING 6.02

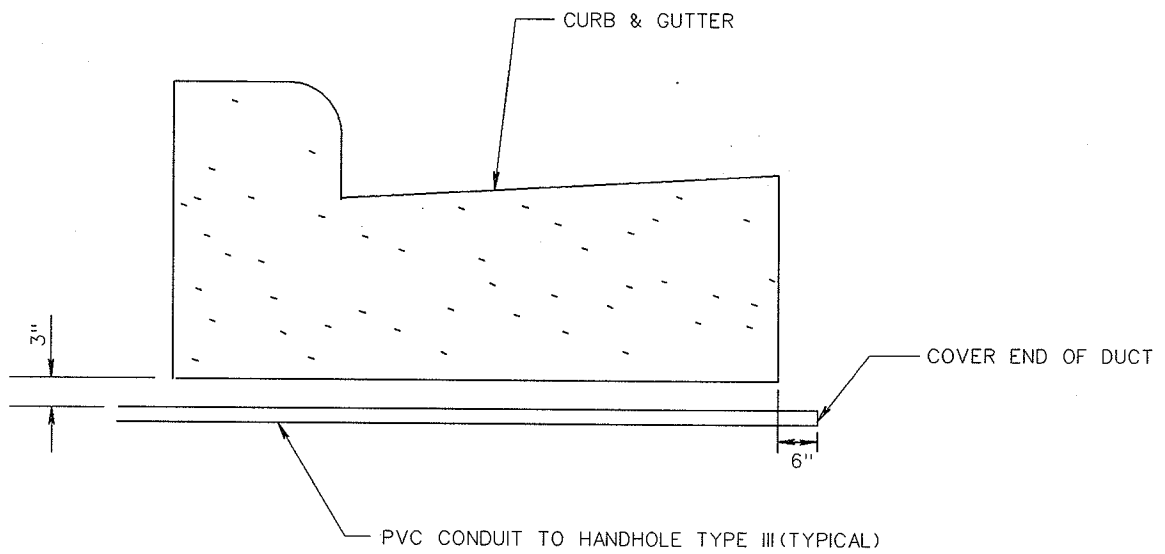


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

DUCT TERMINATION
DETAIL

STANDARD DETAIL DRAWING 6.03



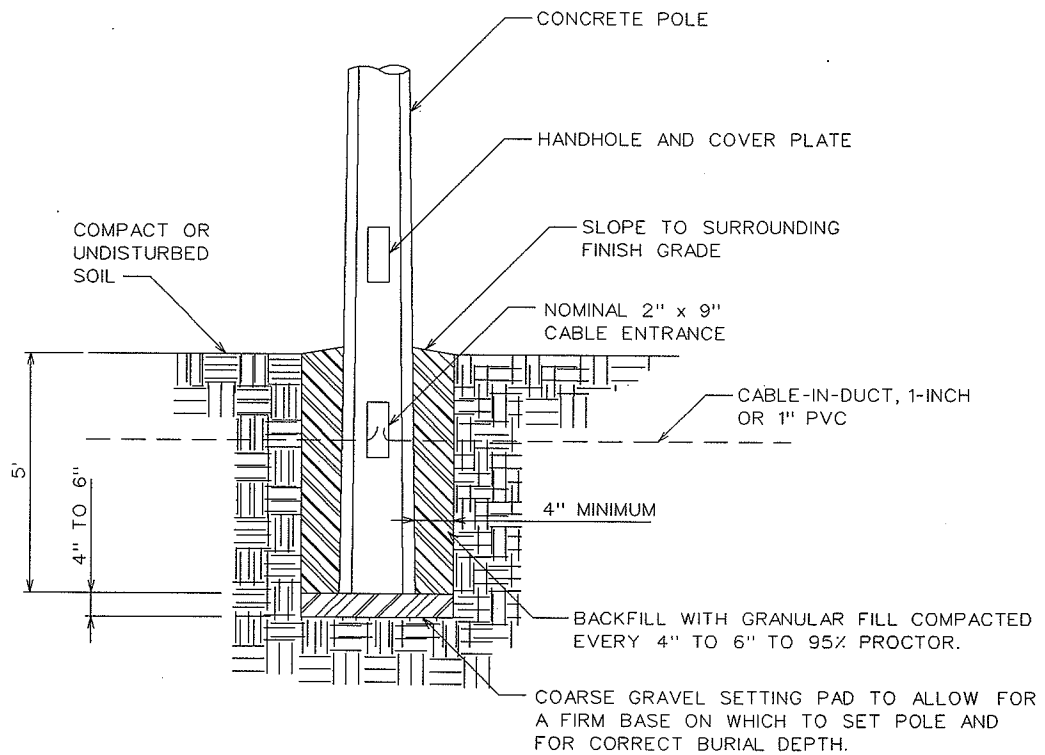
LOOP LEAD DUCT DETAIL

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

LOOP LEAD DUCT
DETAIL

STANDARD DETAIL DRAWING 6.04



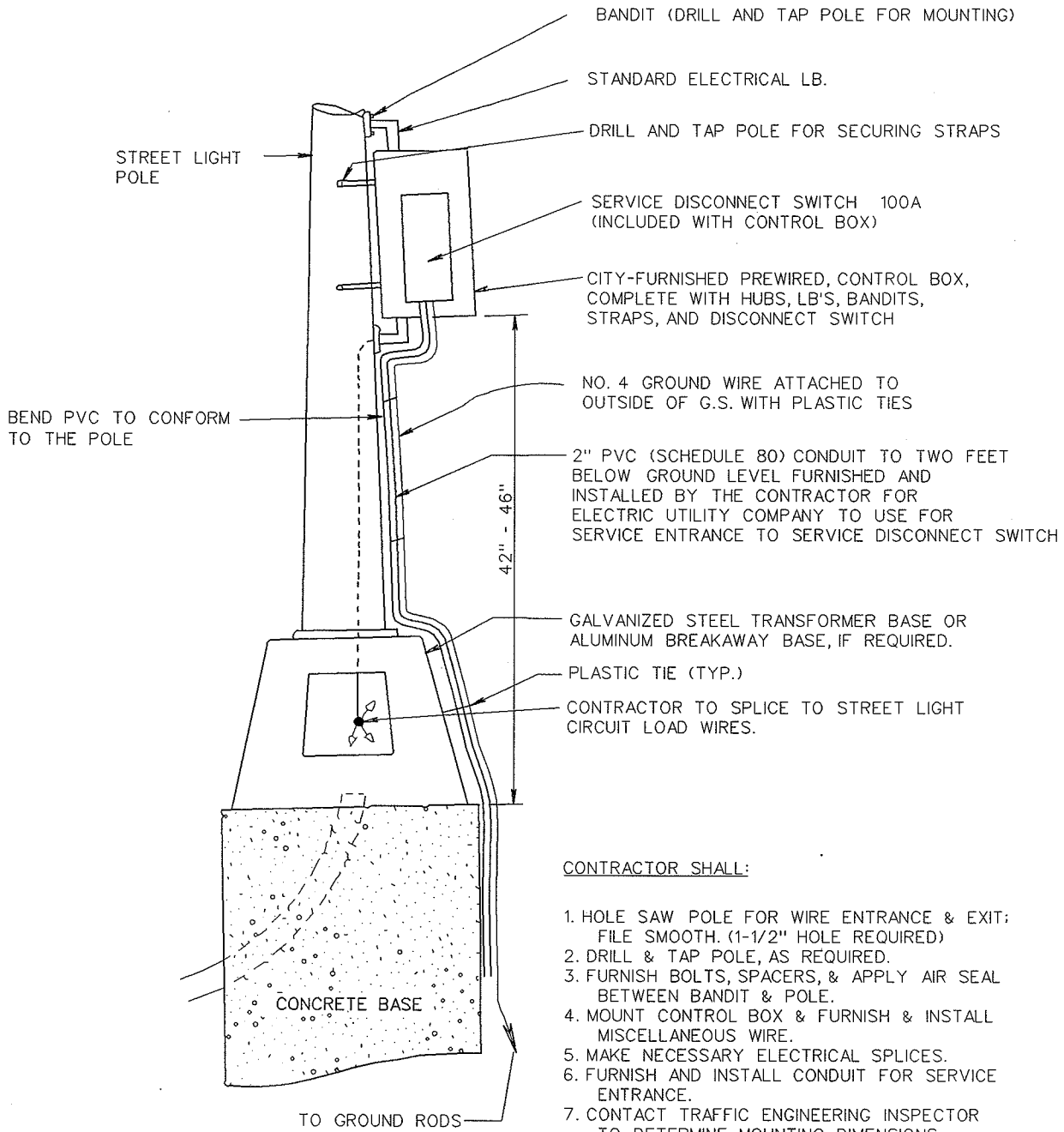
CONCRETE POLE BURIAL DETAIL

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

CONCRETE POLE BURIAL
DETAIL

STANDARD DETAIL DRAWING 6.05



BEND PVC TO CONFORM TO THE POLE

CONTRACTOR SHALL:

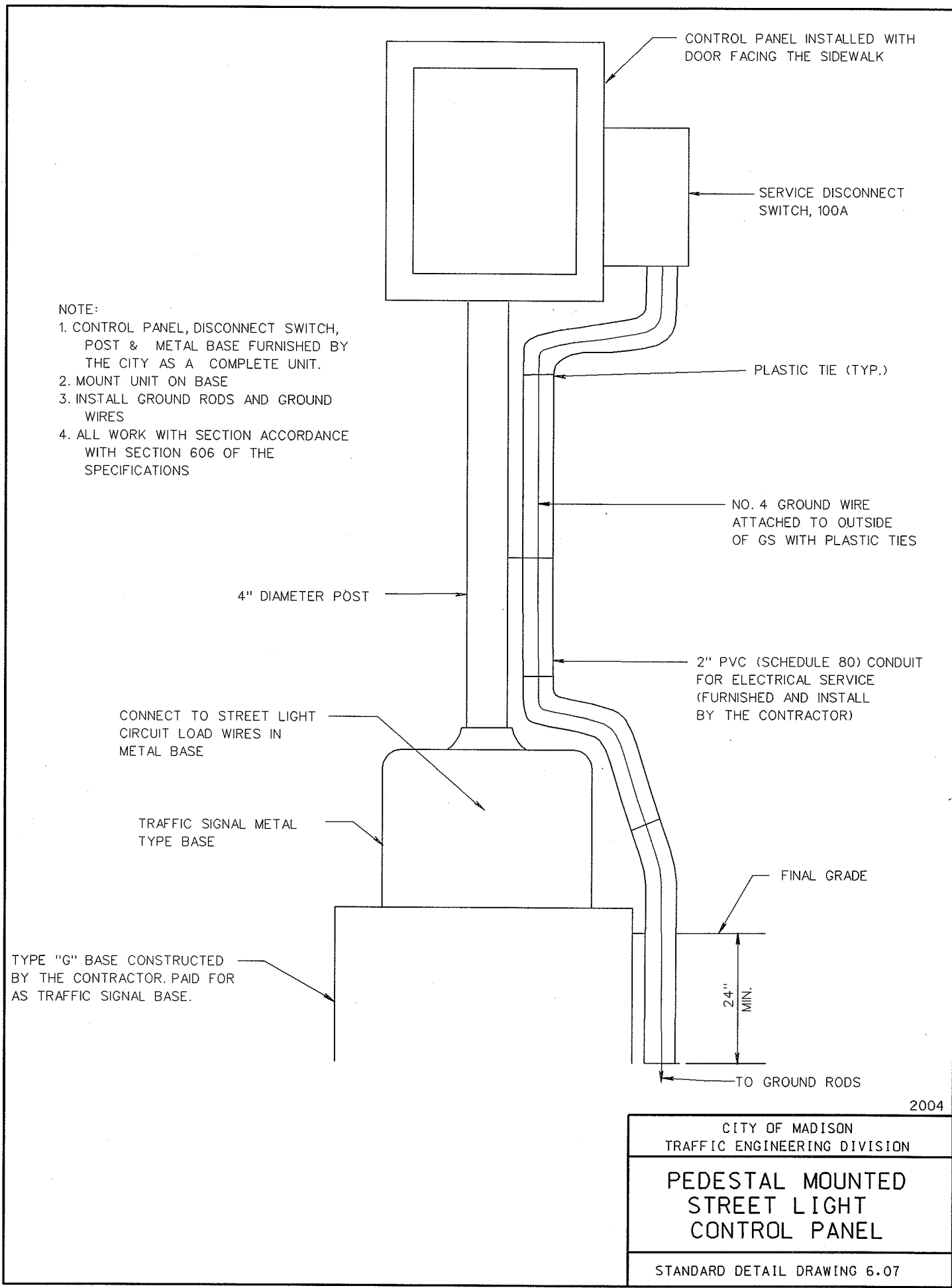
1. HOLE SAW POLE FOR WIRE ENTRANCE & EXIT; FILE SMOOTH. (1-1/2" HOLE REQUIRED)
2. DRILL & TAP POLE, AS REQUIRED.
3. FURNISH BOLTS, SPACERS, & APPLY AIR SEAL BETWEEN BANDIT & POLE.
4. MOUNT CONTROL BOX & FURNISH & INSTALL MISCELLANEOUS WIRE.
5. MAKE NECESSARY ELECTRICAL SPLICES.
6. FURNISH AND INSTALL CONDUIT FOR SERVICE ENTRANCE.
7. CONTACT TRAFFIC ENGINEERING INSPECTOR TO DETERMINE MOUNTING DIMENSIONS.
8. USE MACHINE TYPE BOLTS FOR MOUNTING.
9. MOUNT CONTROL BOX ON SIDEWALK SIDE OF POLE OR AS DIRECTED BY THE ENGINEER.
10. INSTALL GROUND RODS & GROUND WIRE

NOTE:

ALL WORK TO BE IN ACCORDANCE WITH SECTION 606 OF THE SPECIFICATIONS.

2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| POLE MOUNTED STREET LIGHT CONTROL PANEL |
| STANDARD DETAIL DRAWING 6.06 |



- NOTE:
1. CONTROL PANEL, DISCONNECT SWITCH, POST & METAL BASE FURNISHED BY THE CITY AS A COMPLETE UNIT.
 2. MOUNT UNIT ON BASE
 3. INSTALL GROUND RODS AND GROUND WIRES
 4. ALL WORK WITH SECTION ACCORDANCE WITH SECTION 606 OF THE SPECIFICATIONS

CONTROL PANEL INSTALLED WITH DOOR FACING THE SIDEWALK

SERVICE DISCONNECT SWITCH, 100A

PLASTIC TIE (TYP.)

NO. 4 GROUND WIRE ATTACHED TO OUTSIDE OF GS WITH PLASTIC TIES

4" DIAMETER POST

2" PVC (SCHEDULE 80) CONDUIT FOR ELECTRICAL SERVICE (FURNISHED AND INSTALL BY THE CONTRACTOR)

CONNECT TO STREET LIGHT CIRCUIT LOAD WIRES IN METAL BASE

TRAFFIC SIGNAL METAL TYPE BASE

FINAL GRADE

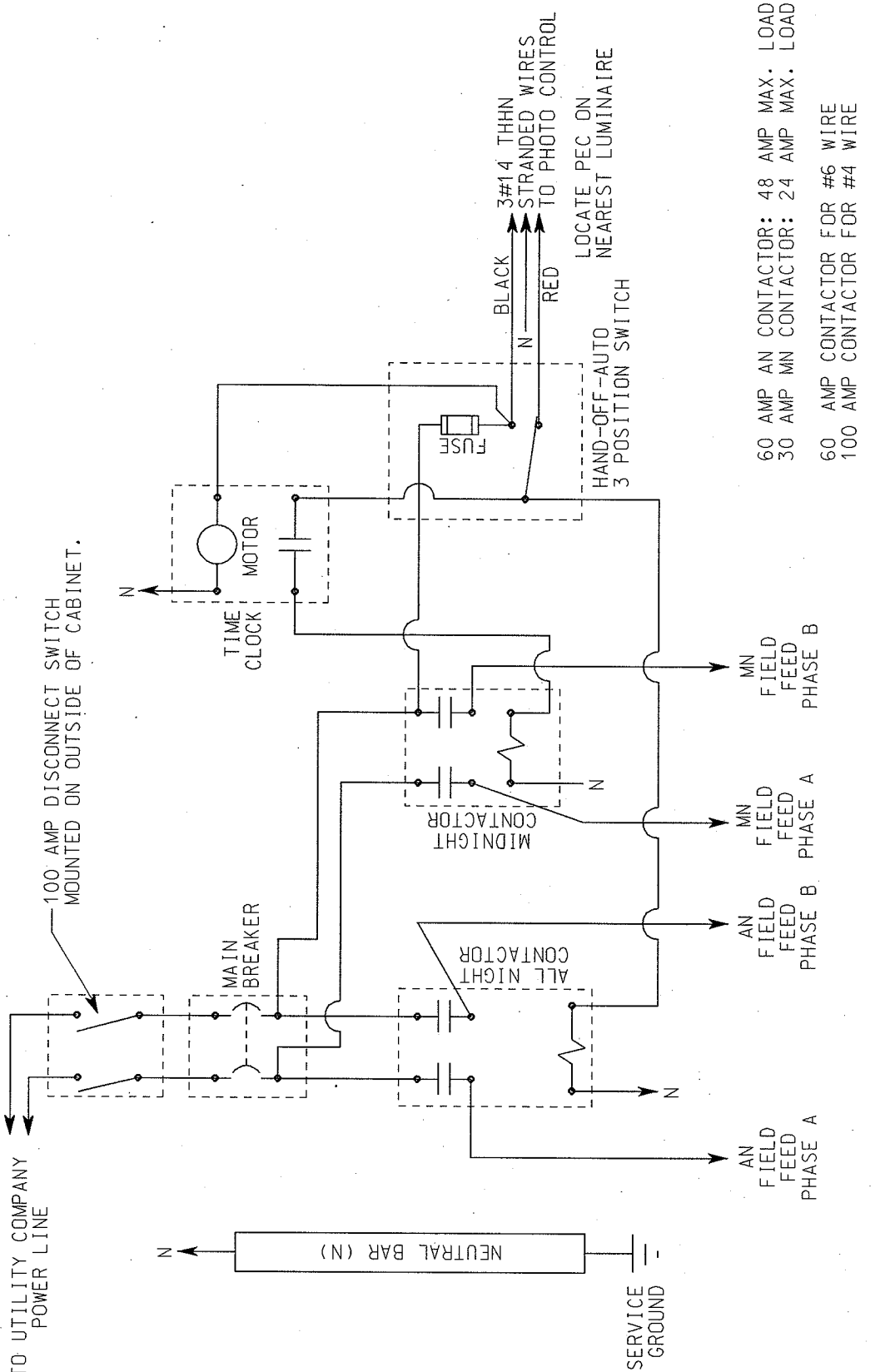
TYPE "G" BASE CONSTRUCTED BY THE CONTRACTOR. PAID FOR AS TRAFFIC SIGNAL BASE.

24" MIN.

TO GROUND RODS

2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| PEDESTAL MOUNTED STREET LIGHT CONTROL PANEL |
| STANDARD DETAIL DRAWING 6.07 |



60 AMP AN CONTACTOR: 48 AMP MAX. LOAD
 30 AMP MN CONTACTOR: 24 AMP MAX. LOAD
 60 AMP CONTACTOR FOR #6 WIRE
 100 AMP CONTACTOR FOR #4 WIRE

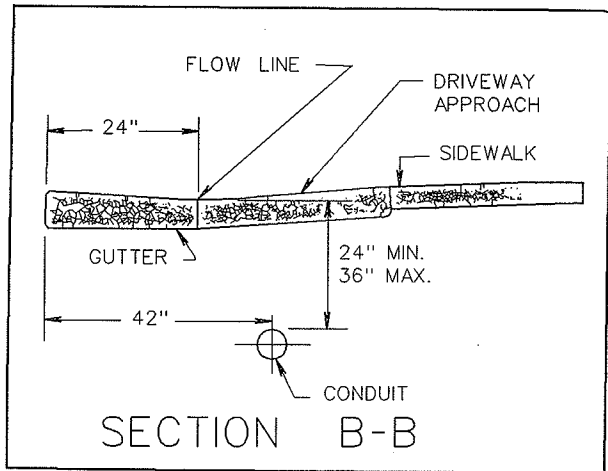
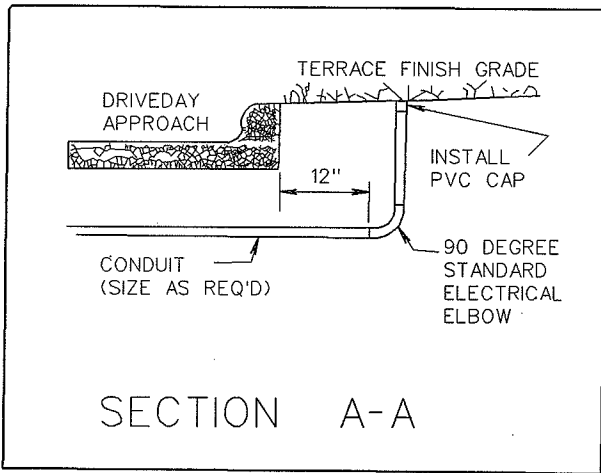
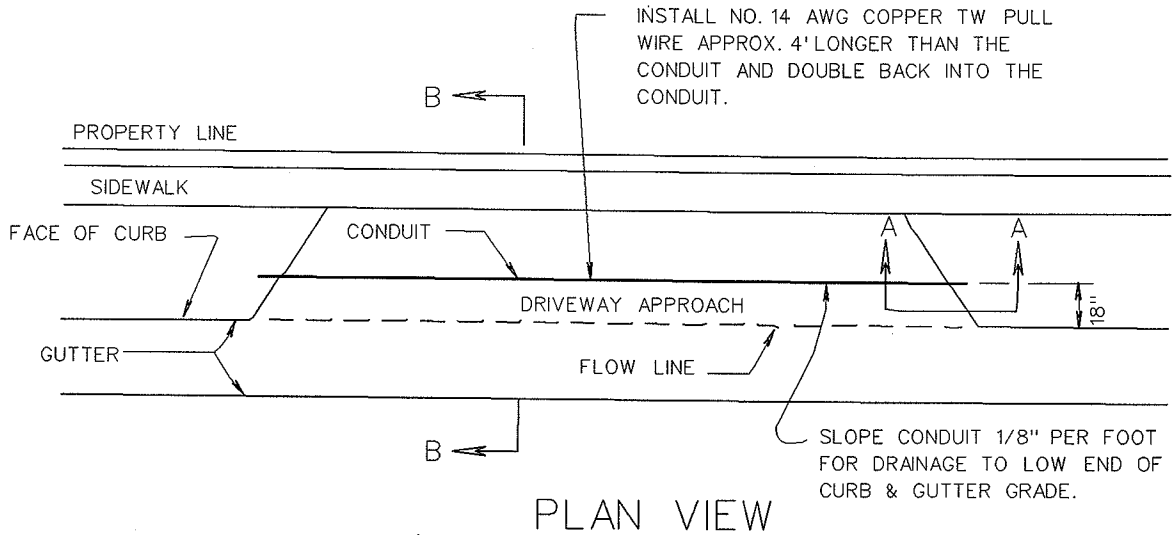
NOTE: CONTRACTOR SHALL CONNECT CIRCUIT WIRING IN SUCH A MANNER TO BALANCE THE LOAD BETWEEN PHASE A AND B AS CLOSE AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.

2004

CITY OF MADISON
 TRAFFIC ENGINEERING DIVISION
 120V STREET LIGHT
 CONTROL PANEL
 ELECTRICAL SERVICE
 DETAIL

STANDARD DETAIL DRAWING 6.08

CONDUIT PLACEMENT DETAILS FOR COMMERCIAL DRIVE APPROACHES

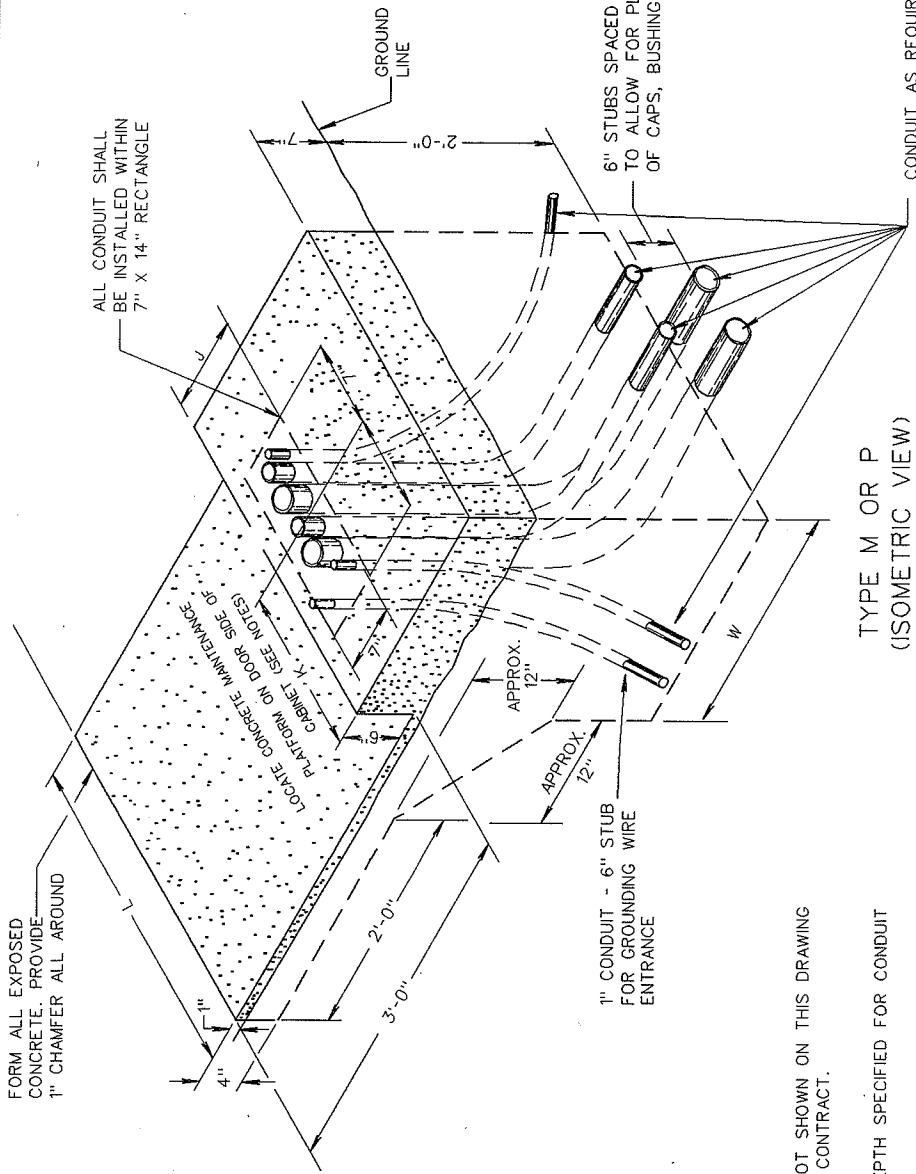


BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING SHOP, ELECTRICAL SECTION, (608-266-4767) TO ARRANGE FOR INSPECTION OF THE DUCT PLACEMENT.

2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| CONDUIT PLACEMENT DETAILS FOR COMMERCIAL DRIVE APPROACH |
| STANDARD DETAIL DRAWING 6.09 |

| CONTROL CABINET BASE TYPE | DIMENSIONS | | | C.Y. CONCRETE (APPROX.) |
|------------------------------|------------|-----|---------|----------------------------|
| | L | W | K | |
| TYPE M | 40" | 30" | 12" 20" | .823 |
| TYPE P | 48" | 30" | 16" 24" | 1.179 |
| TYPE M MODIFIED | - | - | - | - |
| TYPE P MODIFIED | - | - | - | - |
| TYPE OTHER | - | - | - | - |



GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- ALL CONDUIT SHALL BE PVC, SCHEDULE 40
- DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.
- ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.
- MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.
- MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.
- ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MINIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.
- MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

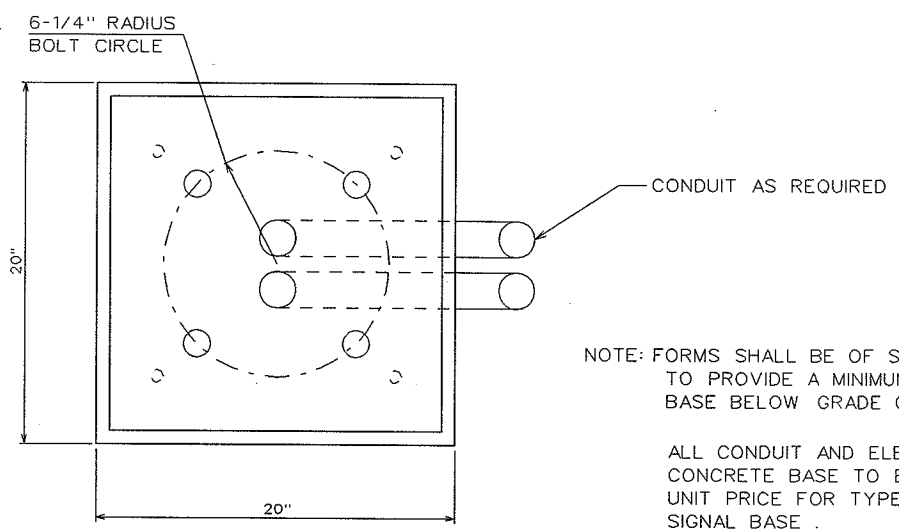
CONCRETE CONTROL CABINET BASES

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

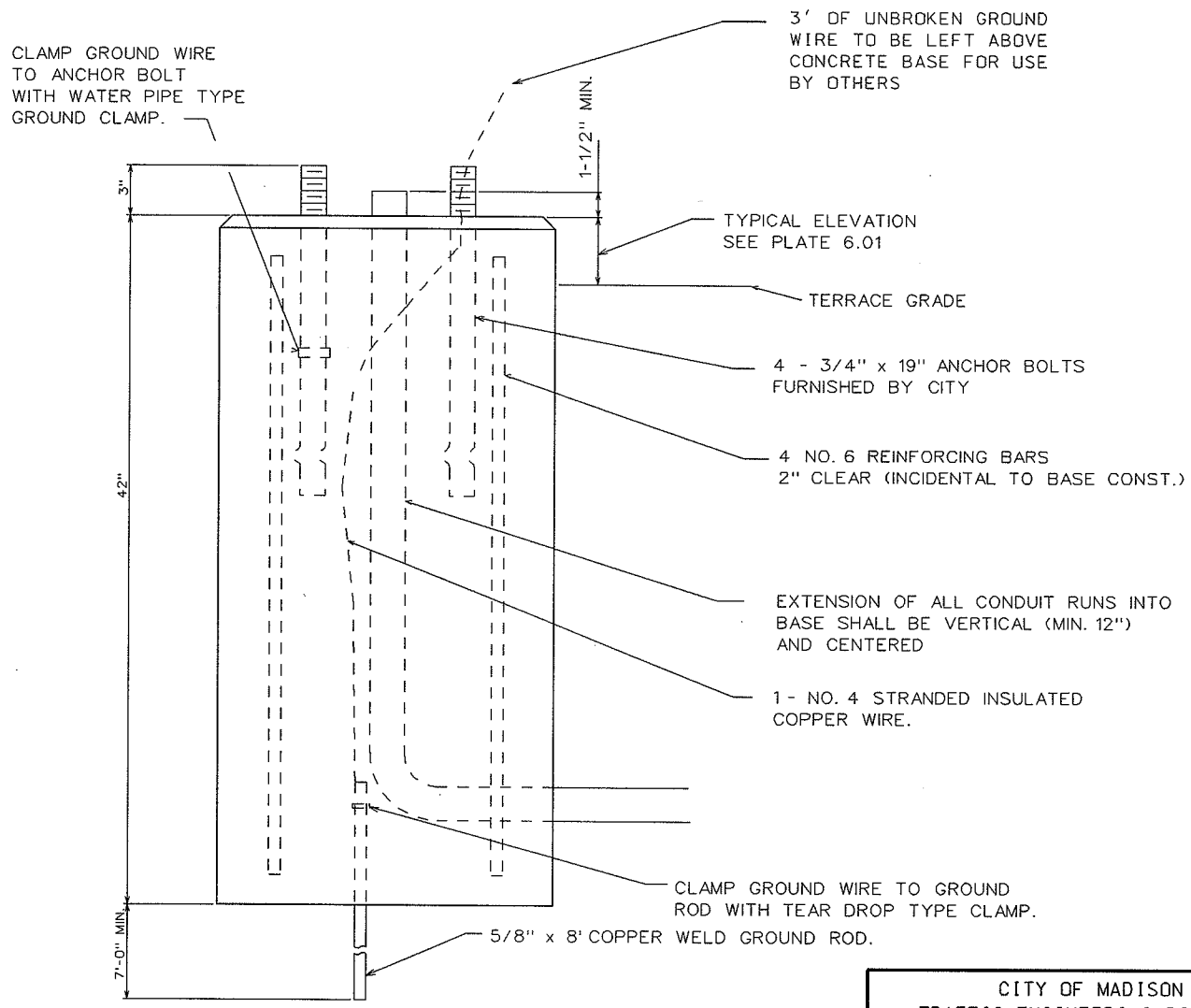
TYPE "M" AND "P"
CONTROLLER BASE DETAIL

STANDARD DETAIL DRAWING 6.10



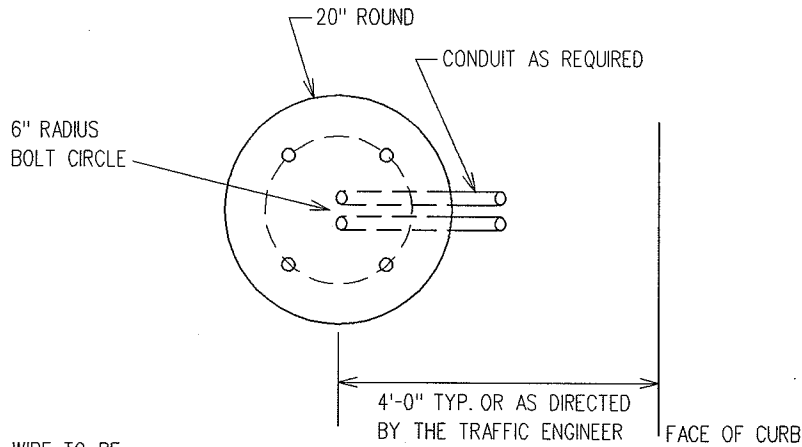
NOTE: FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON THE LOW SIDE.

ALL CONDUIT AND ELBOWS SHOWN IN CONCRETE BASE TO BE INCLUDED IN UNIT PRICE FOR TYPE "G" TRAFFIC SIGNAL BASE .

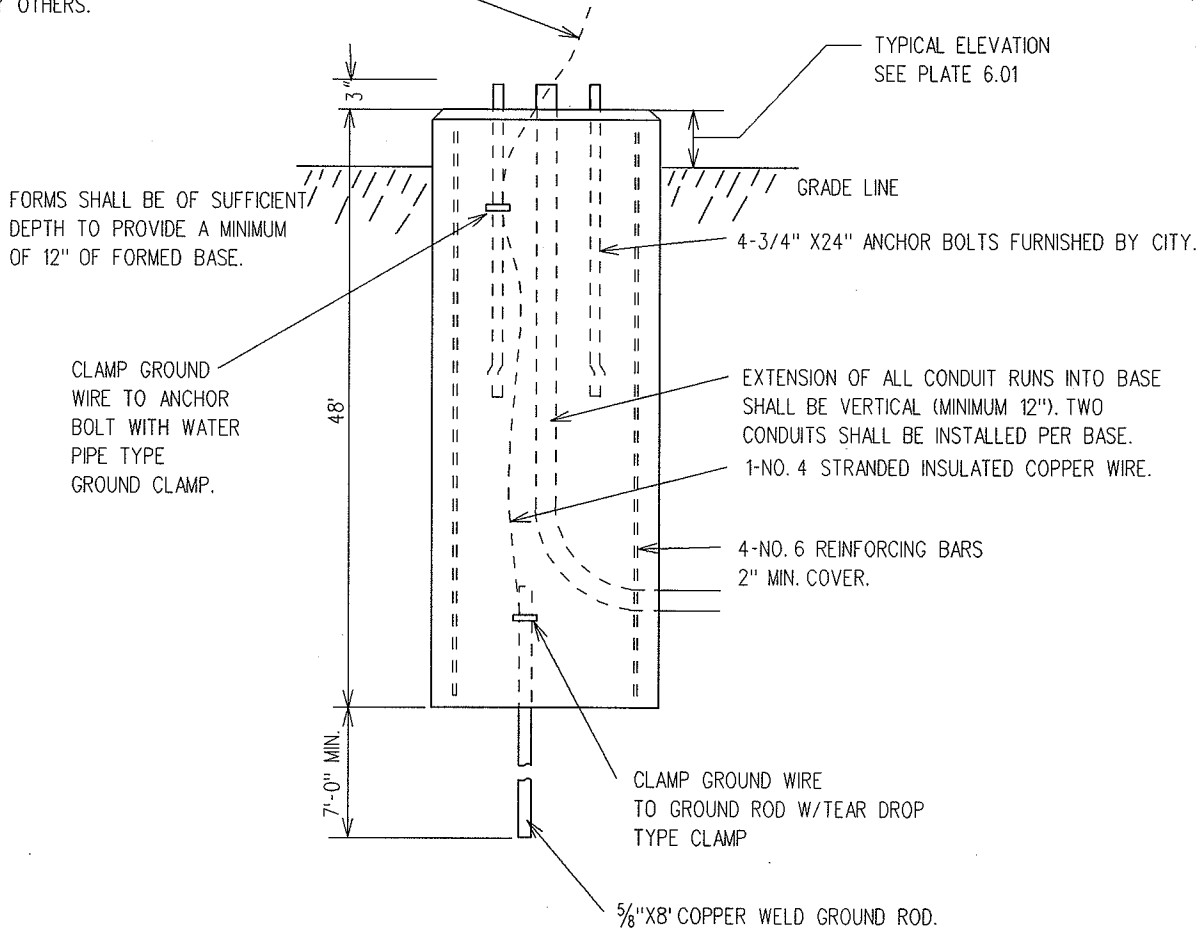


2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| TYPE "G" BASE DETAIL |
| STANDARD DETAIL DRAWING 6.11 |



3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS.



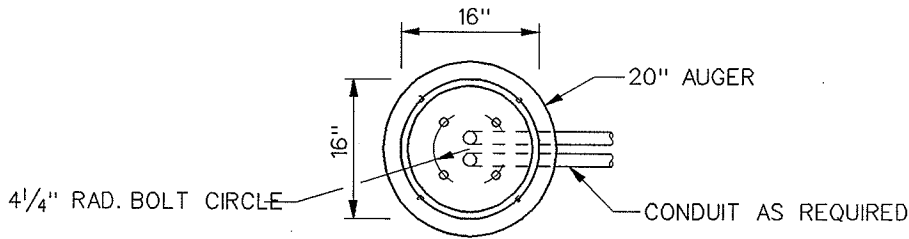
2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

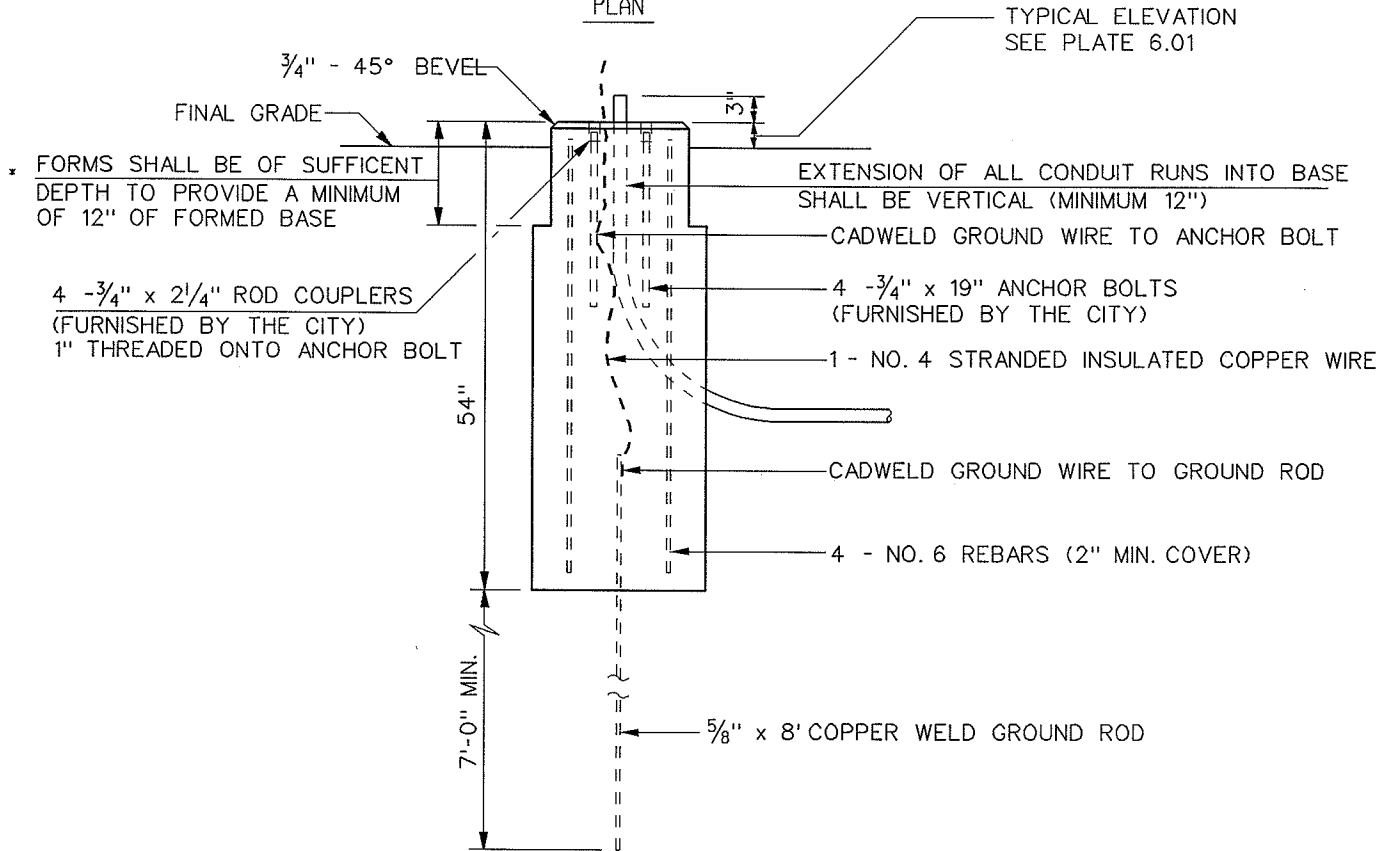
LB-1
BASE DETAIL

STANDARD DETAIL DRAWING 6.12

* TOP 12" OF FORMED BASE TO BE ROUND,
16" DIAMETER AS SHOWN, OR DIRECTED BY THE ENGINEER.



PLAN



ELEVATION

NOTES:

RUST, CORROSION AND ANTI-SEIZE PROTECTION SHALL
PROVIDED AT ALL THREADED ASSEMBLIES.

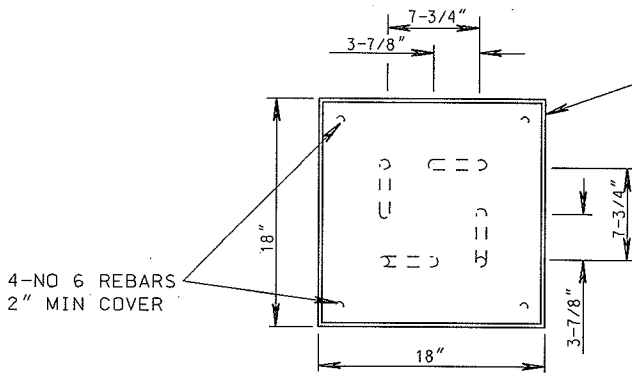
ROD COUPLERS SHALL BE SET FLUSH WITH TOP OF BASE.

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

LB-2
BASE DETAIL

STANDARD DETAIL DRAWING 6.13



HOLE FOR BASE MAY BE DUG WITH 20" DIAMETER AUGER. THEN THE TOP SHALL BE FORMED AS A SQUARE.

4-NO 6 REBARS
2" MIN COVER

3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS

TYPICAL ELEVATION
SEE PLATE 6.01

TERRACE GRADE

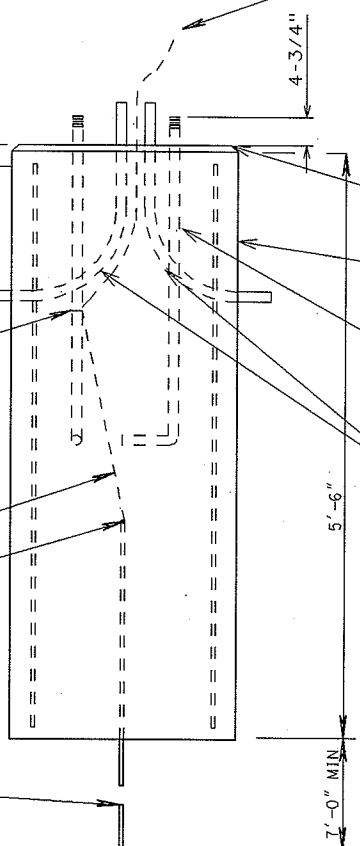
CONDUIT MUST BE 30" BELOW TOP OF BASE

CLAMP GROUND WIRE TO ANCHOR BOLT W/WATER PIPE TYPE GROUND CLAMP

1-NO 4 STRANDED INSULATED COPPER WIRE

CLAMP GROUND WIRE TO GROUND ROD W/TEAR DROP TYPE CLAMP

5/8" X 8' COPPER WELD GROUND ROD



FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON LOW SIDE

1" X 40" ANCHOR BOLTS WITH 6" OF THREAD AT TOP AND 4" L-BEND AT BOTTOM. FURNISHED BY CITY.

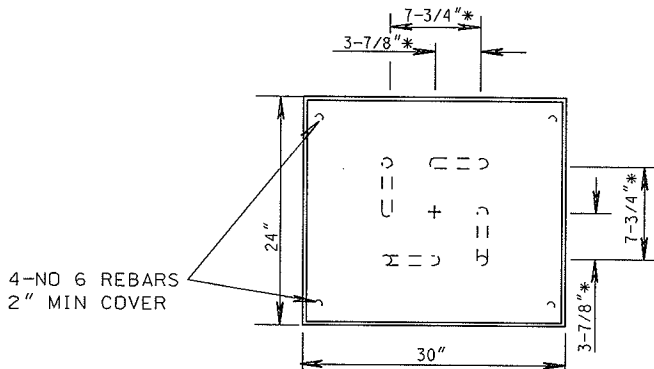
INSTALL PVC ELBOWS OUT OF EACH SIDE OF THE BASE AS NEEDED

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

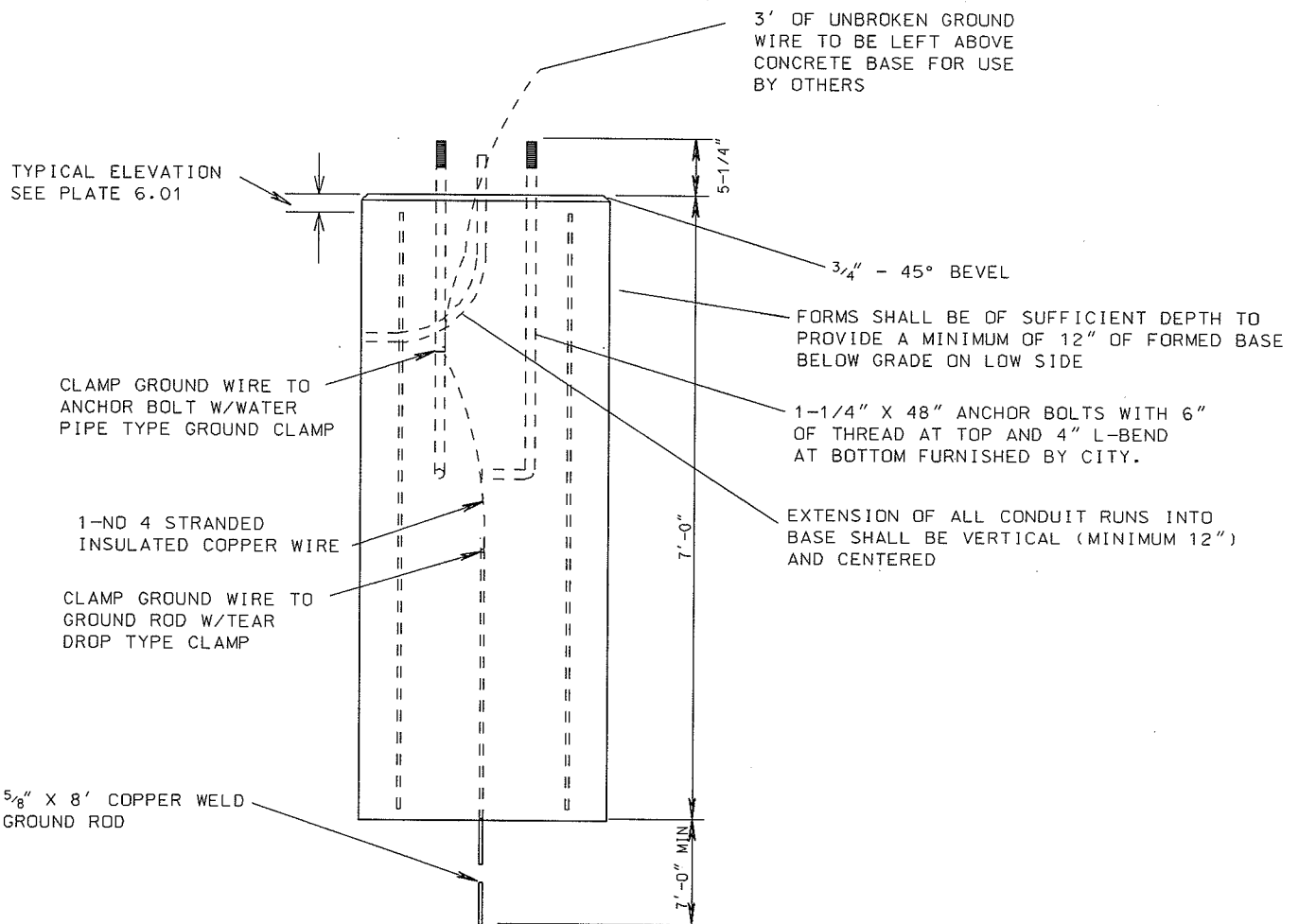
LB-3
BASE DETAIL

STANDARD DETAIL DRAWING 6.14



*IF 15" BOLT CIRCLE IS REQUIRED INSTEAD OF THE 11" BOLT CIRCLE SHOWN THE FOLLOWING DIMENSIONS SHOULD BE USED:

CENTER TO BOLT 5-1/4"
BOLT TO BOLT 10-1/2"



3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS

TYPICAL ELEVATION
SEE PLATE 6.01

3/4" - 45° BEVEL

FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON LOW SIDE

1-1/4" X 48" ANCHOR BOLTS WITH 6" OF THREAD AT TOP AND 4" L-BEND AT BOTTOM FURNISHED BY CITY.

EXTENSION OF ALL CONDUIT RUNS INTO BASE SHALL BE VERTICAL (MINIMUM 12") AND CENTERED

CLAMP GROUND WIRE TO ANCHOR BOLT W/WATER PIPE TYPE GROUND CLAMP

1-NO 4 STRANDED INSULATED COPPER WIRE

CLAMP GROUND WIRE TO GROUND ROD W/TEAR DROP TYPE CLAMP

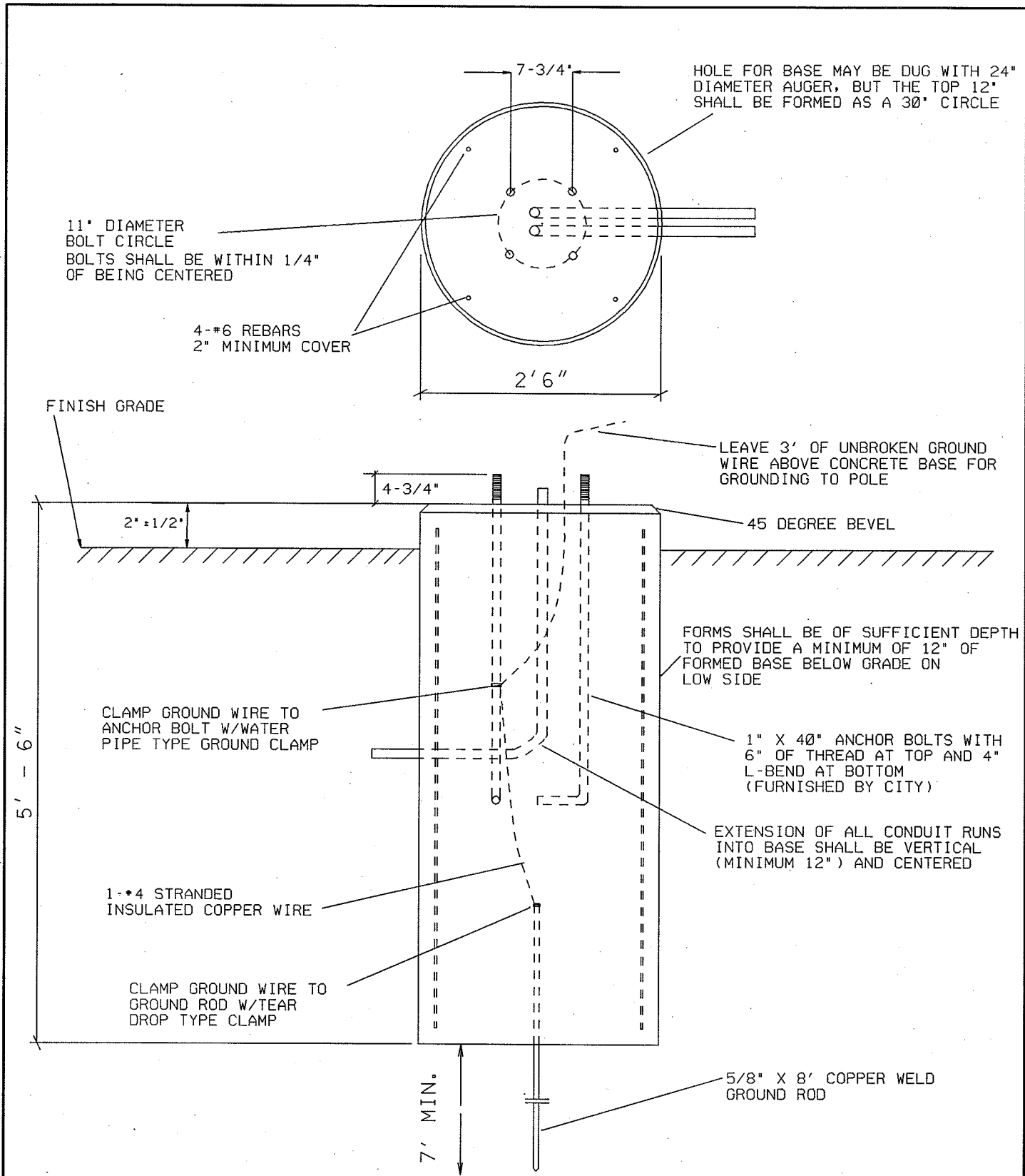
5/8" X 8' COPPER WELD GROUND ROD

2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

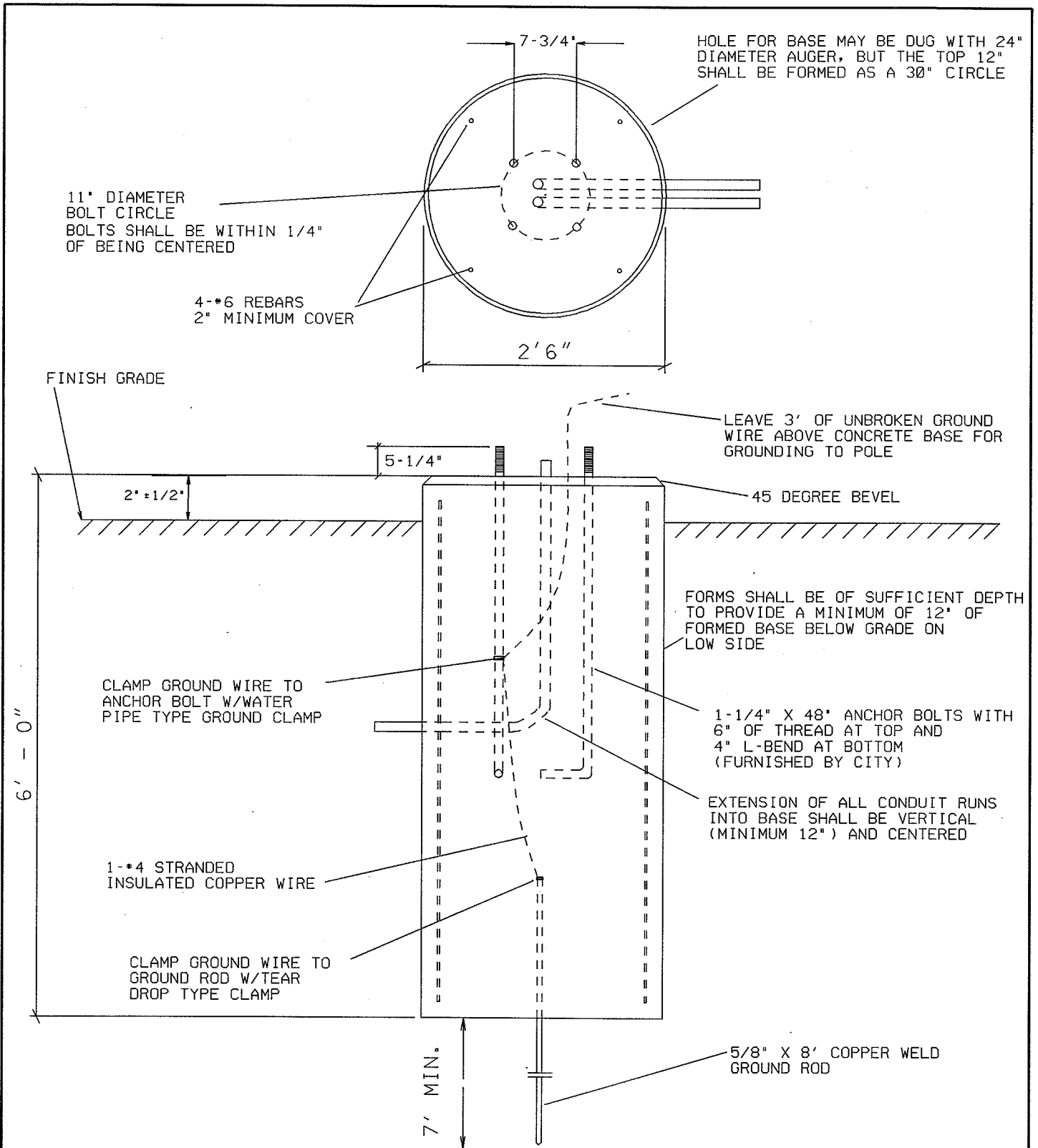
LB-4
BASE DETAIL

STANDARD DETAIL DRAWING 6.15



2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| LB-6 BASE DETAIL |
| STANDARD DETAIL DRAWING 6.17 |



2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

LB-7
BASE DETAIL

STANDARD DETAIL DRAWING 6.18

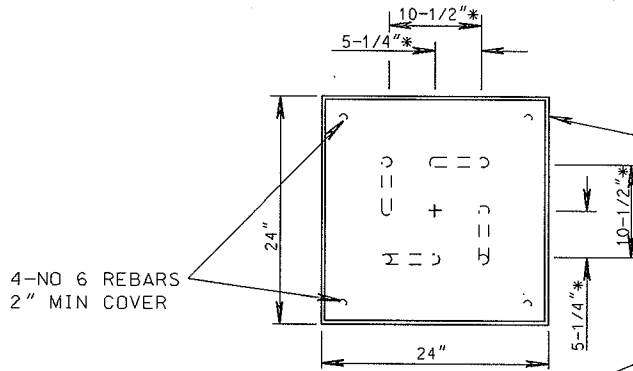
*IF ANOTHER BOLT CIRCLE IS REQUIRED, INSTEAD OF THE 15" BOLT CIRCLE SHOWN, THE FOLLOWING DIMENSIONS SHOULD BE USED

11" BOLT CIRCLE

CENTER TO BOLT 3-7/8"
BOLT TO BOLT 7-3/4"

12-1/2" BOLT CIRCLE

CENTER TO BOLT 4-7/16"
BOLT TO BOLT 8-7/8"



HOLE FOR BASE MAY BE DUG WITH 26" DIAMETER AUGER. THEN THE TOP SHALL FORMED AS A SQUARE

3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS

TYPICAL ELEVATION
SEE PLATE 6.01

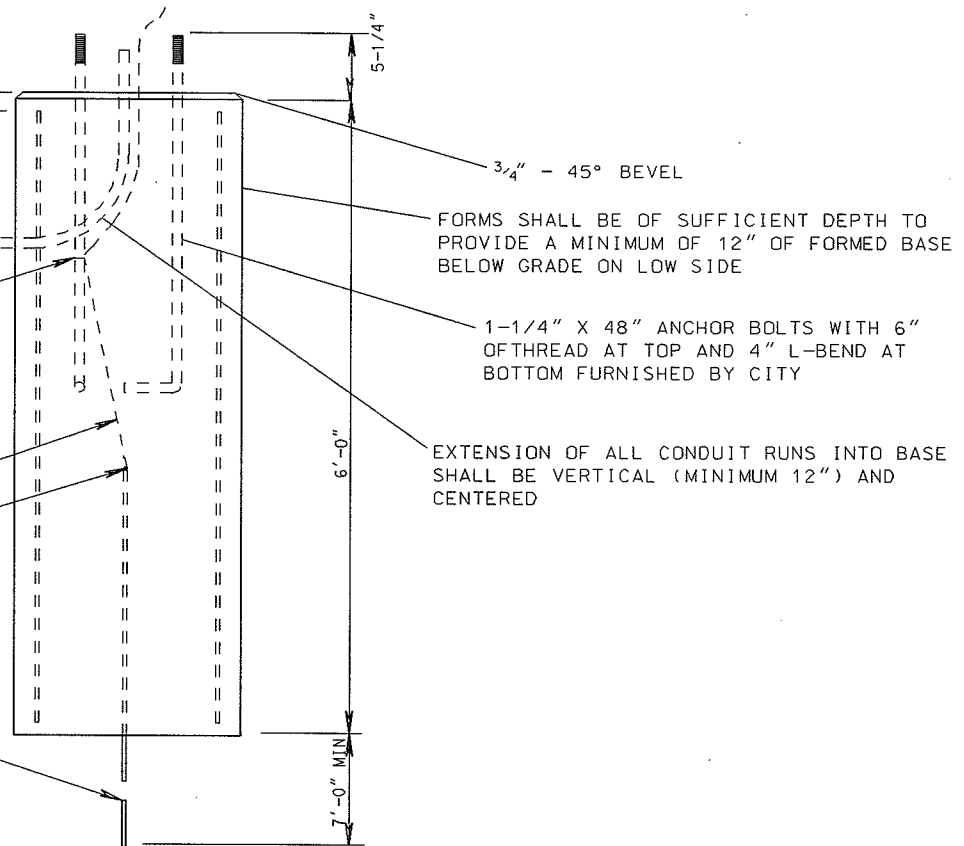
TERRACE GRADE

CLAMP GROUND WIRE TO ANCHOR BOLT W/WATER PIPE TYPE GROUND CLAMP

1-NO 4 STRANDED INSULATED COPPER WIRE

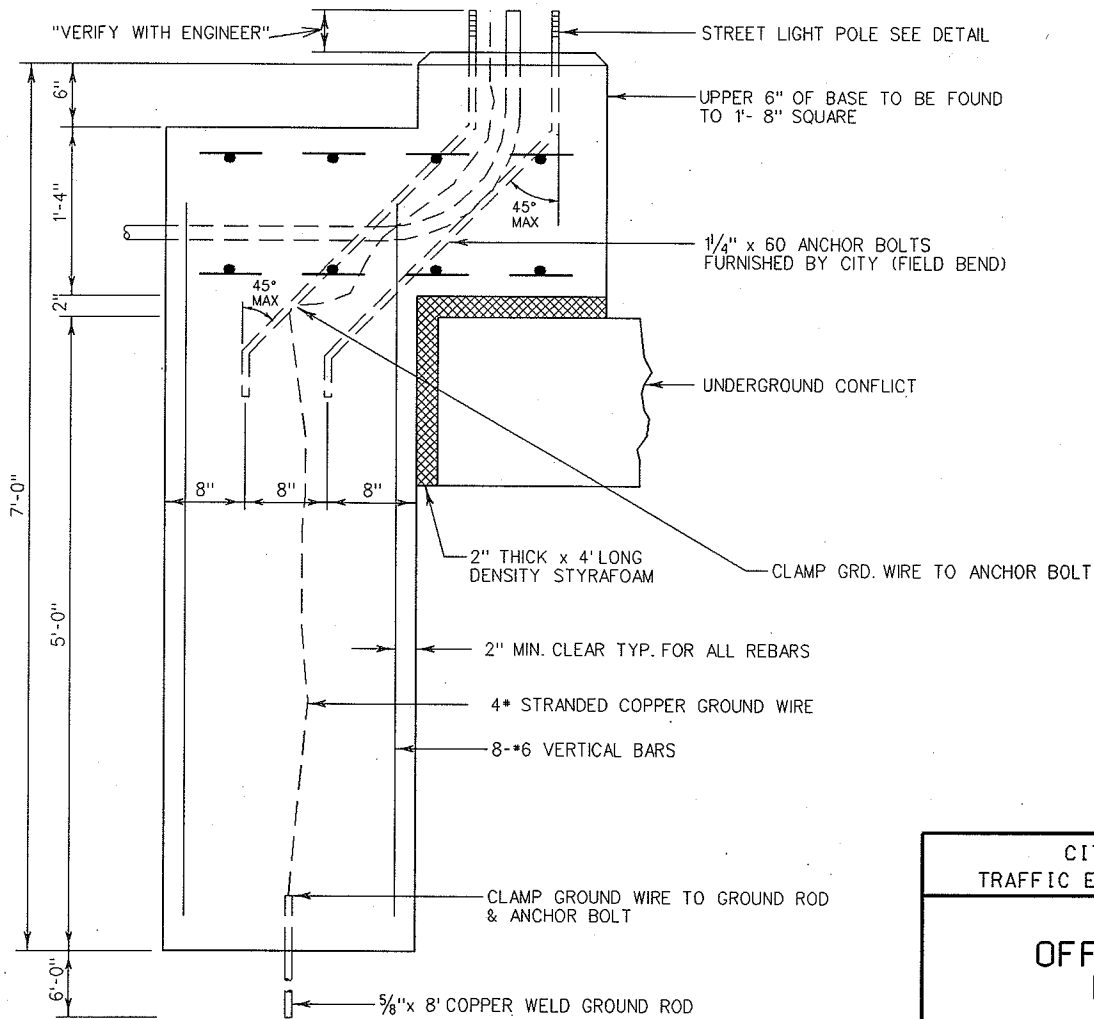
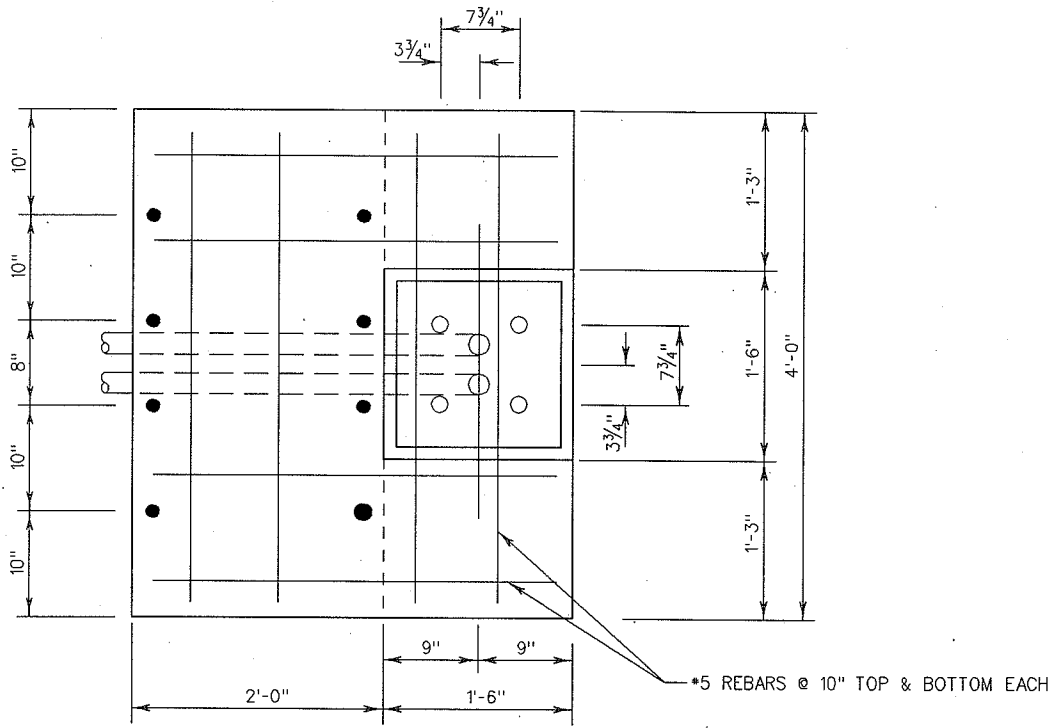
CLAMP GROUND WIRE TO GROUND ROD W/TEAR DROP TYPE CLAMP

5/8" x 8' COPPER WELD GROUND ROD



2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| LB-8 BASE DETAIL |
| STANDARD DETAIL DRAWING 6.19 |

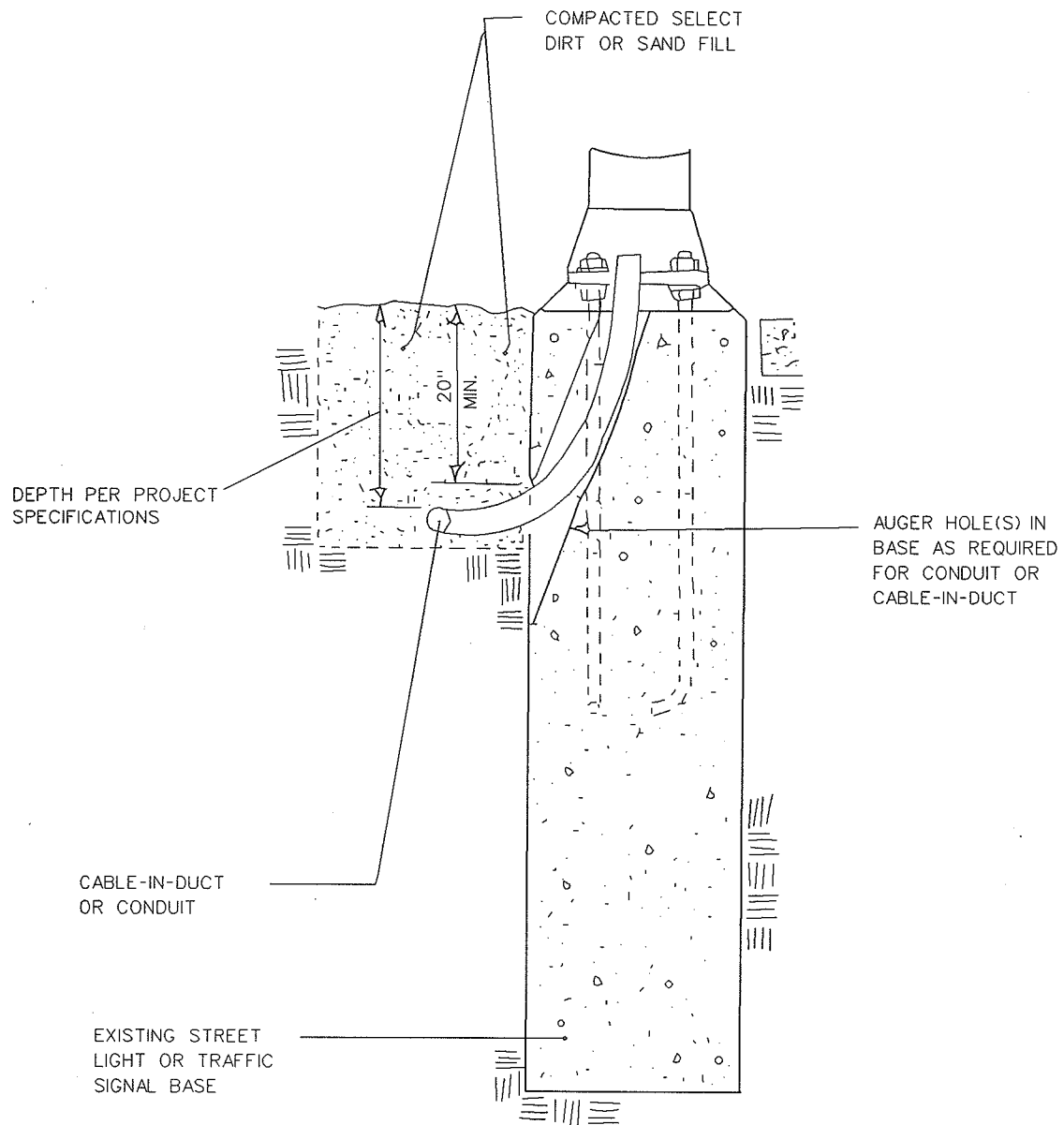


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

OFFSET BASE
DETAIL

STANDARD DETAIL DRAWING 6.20

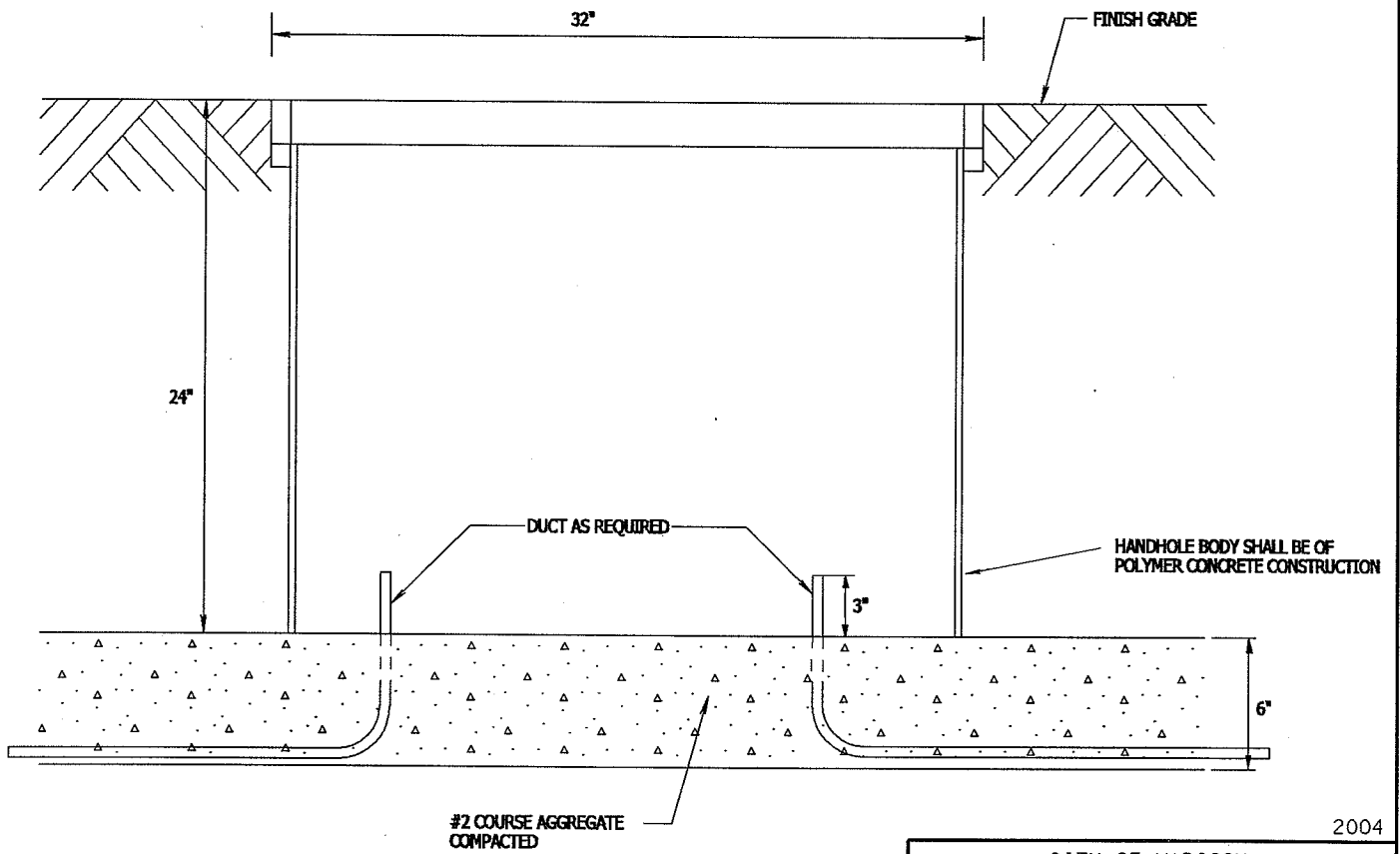
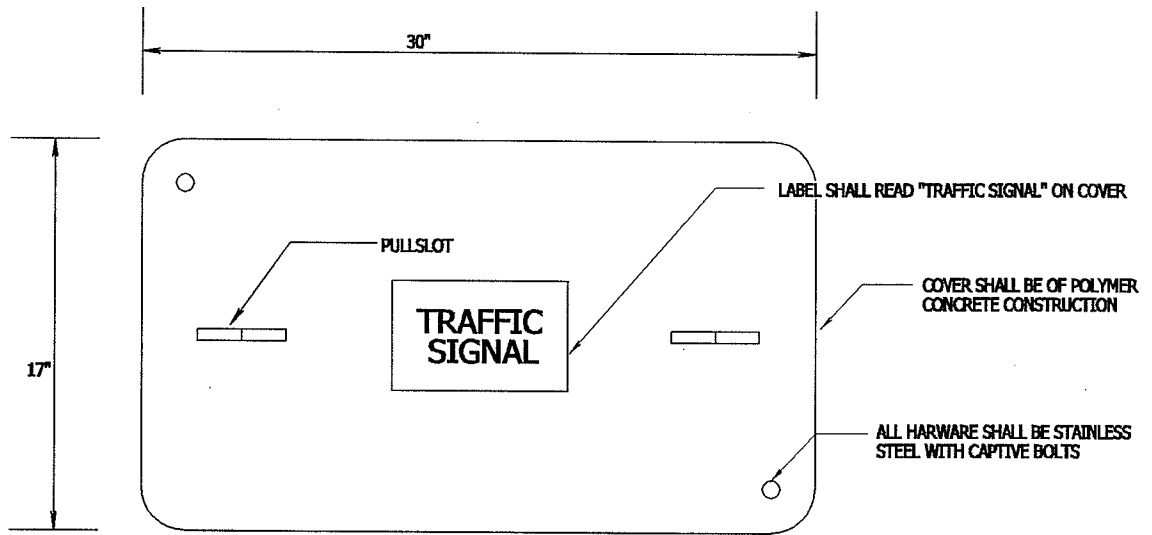


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

TYPICAL DETAIL FOR
AUGERING A HOLE(S)
IN EXISTING BASE FOR
DUCT ENTRANCE

STANDARD DETAIL DRAWING 6.21

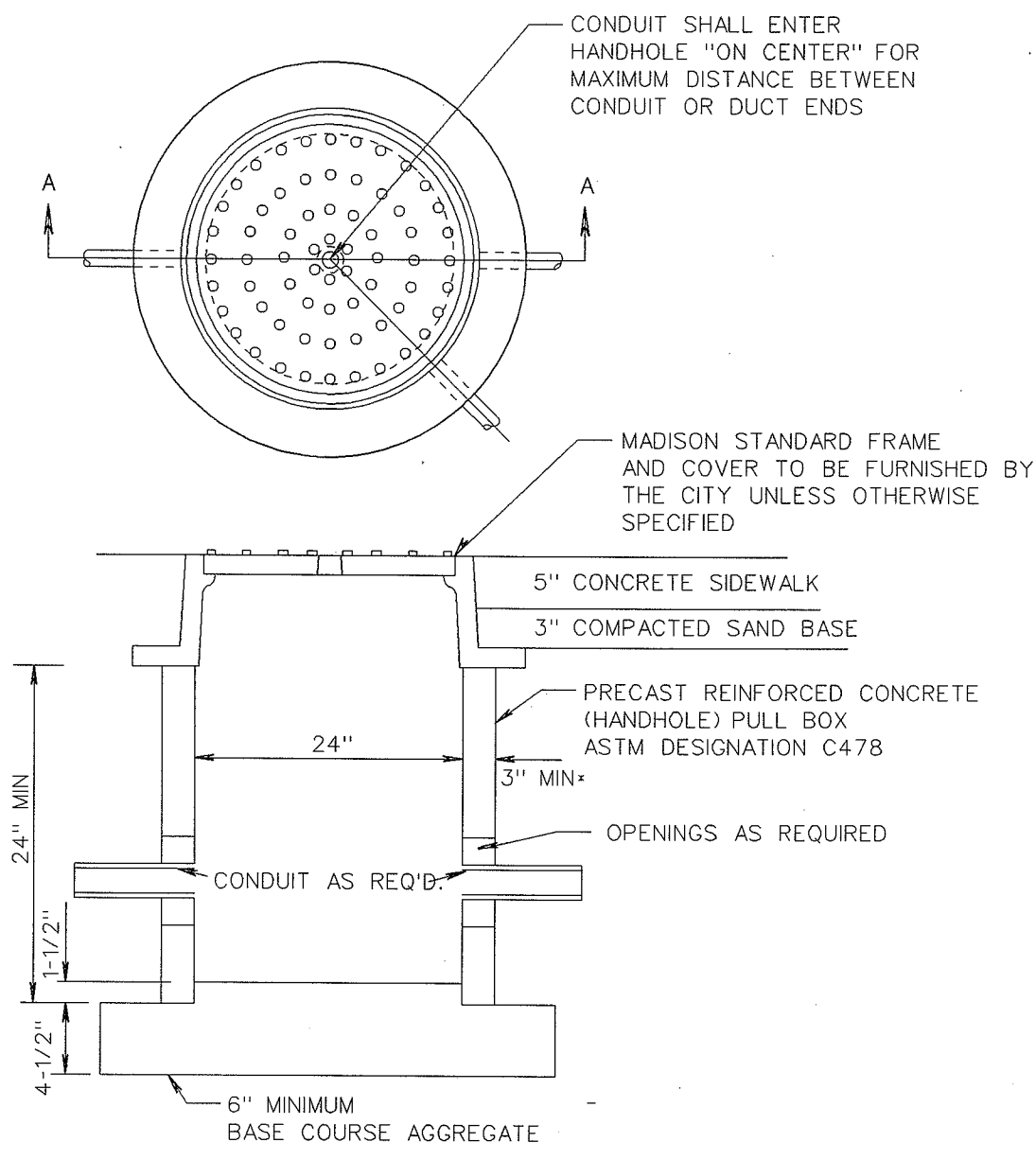


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

TYPE I HANDHOLE
DETAIL

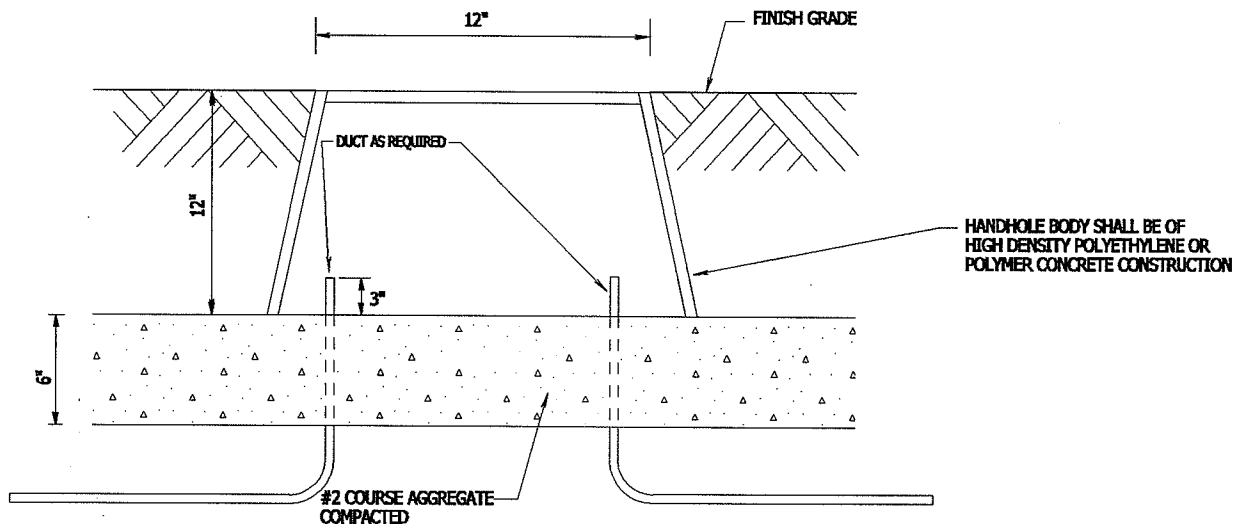
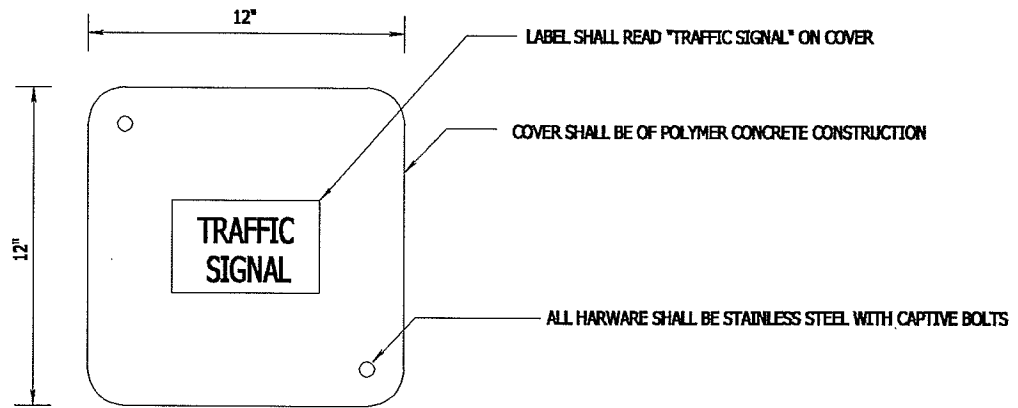
STANDARD DETAIL DRAWING 6.22



SECTION A-A

*5" WALL THICKNESS IS REQUIRED IF HANDHOLE IS LOCATED IN ROADWAY OR DRIVEWAY APRON.

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| 2004 |
| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| TYPE II HANDHOLE DETAIL |
| STANDARD DETAIL DRAWING 6.23 |

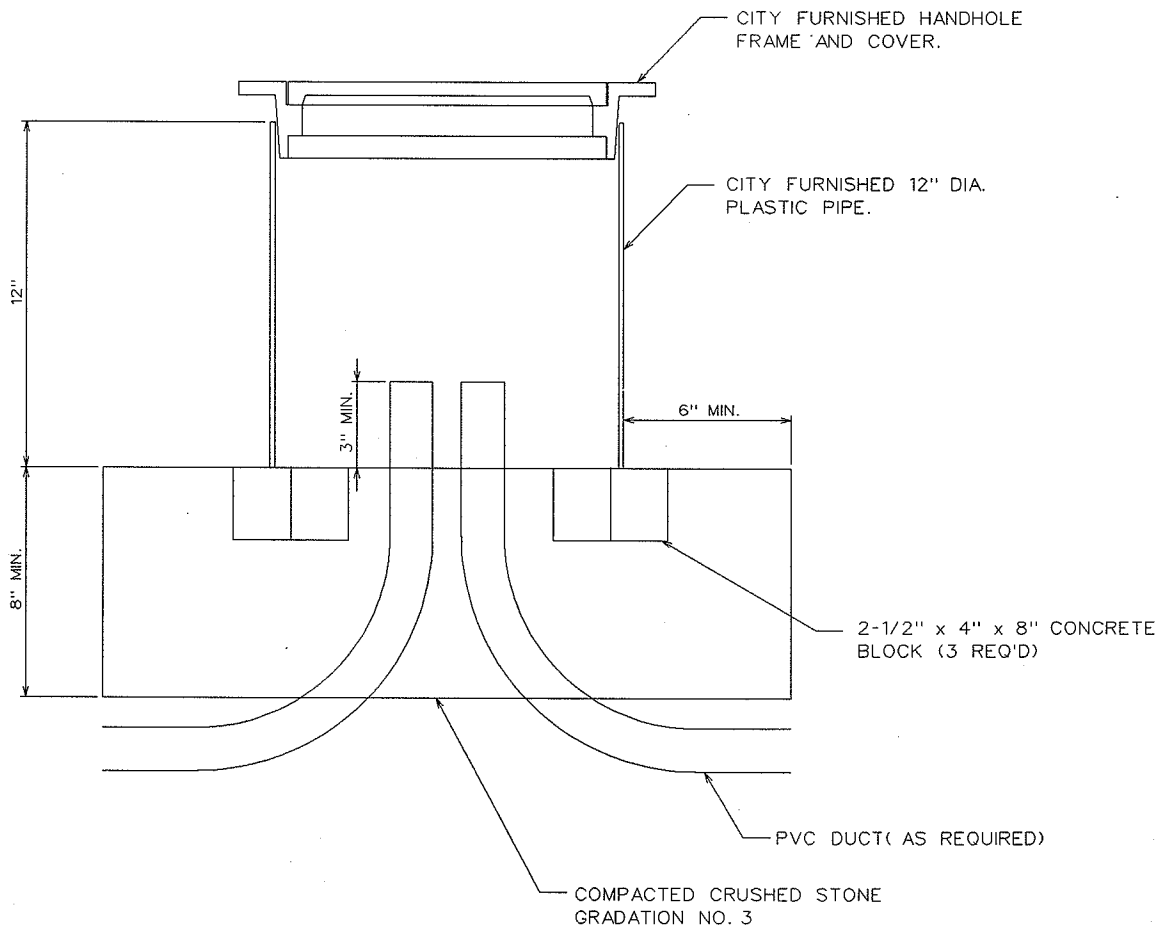


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

TYPE III HANDHOLE
DETAIL

STANDARD DETAIL DRAWING 6.24

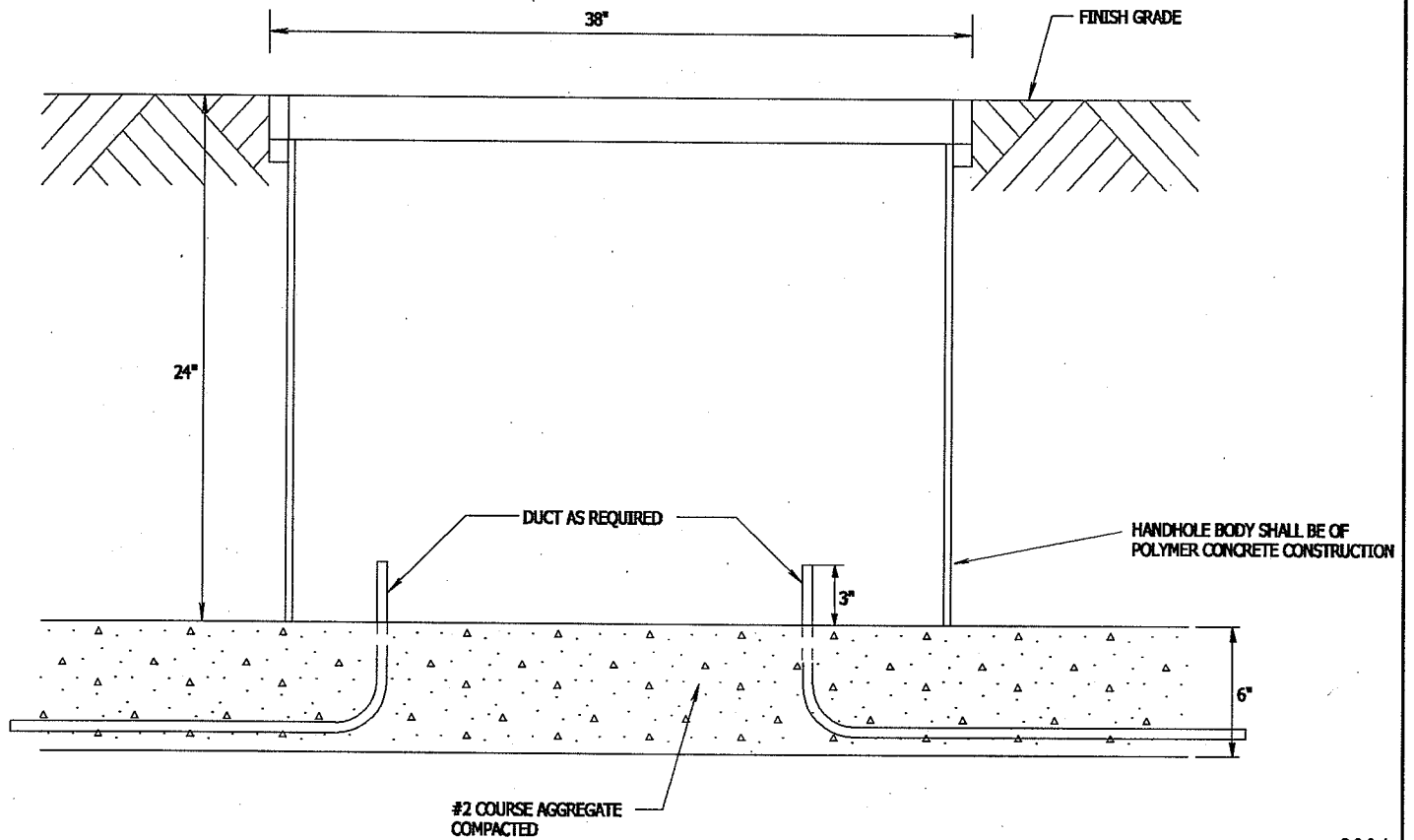
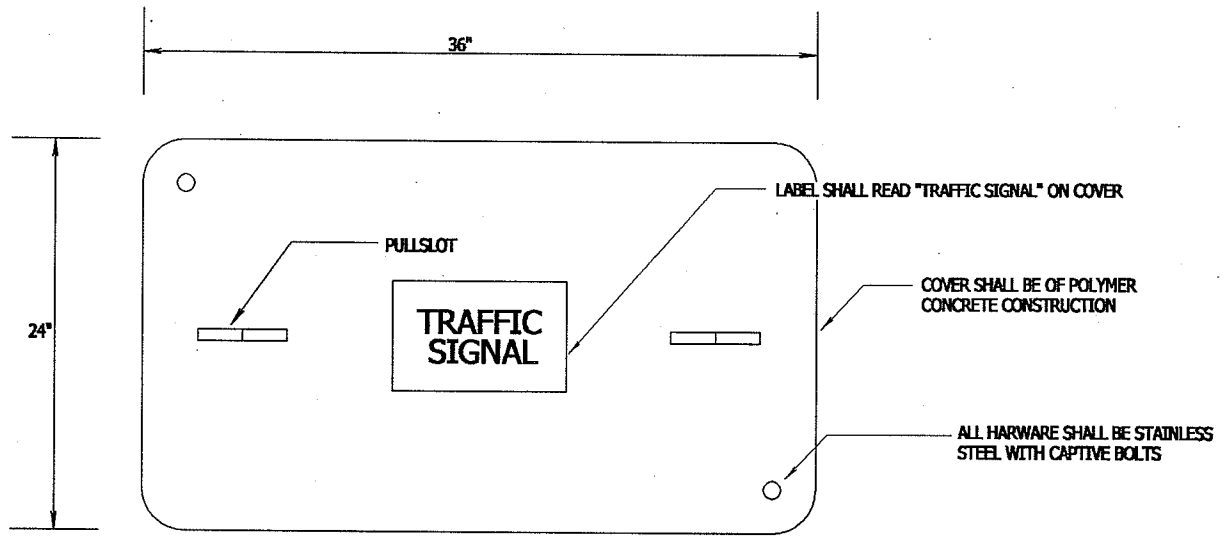


2004

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

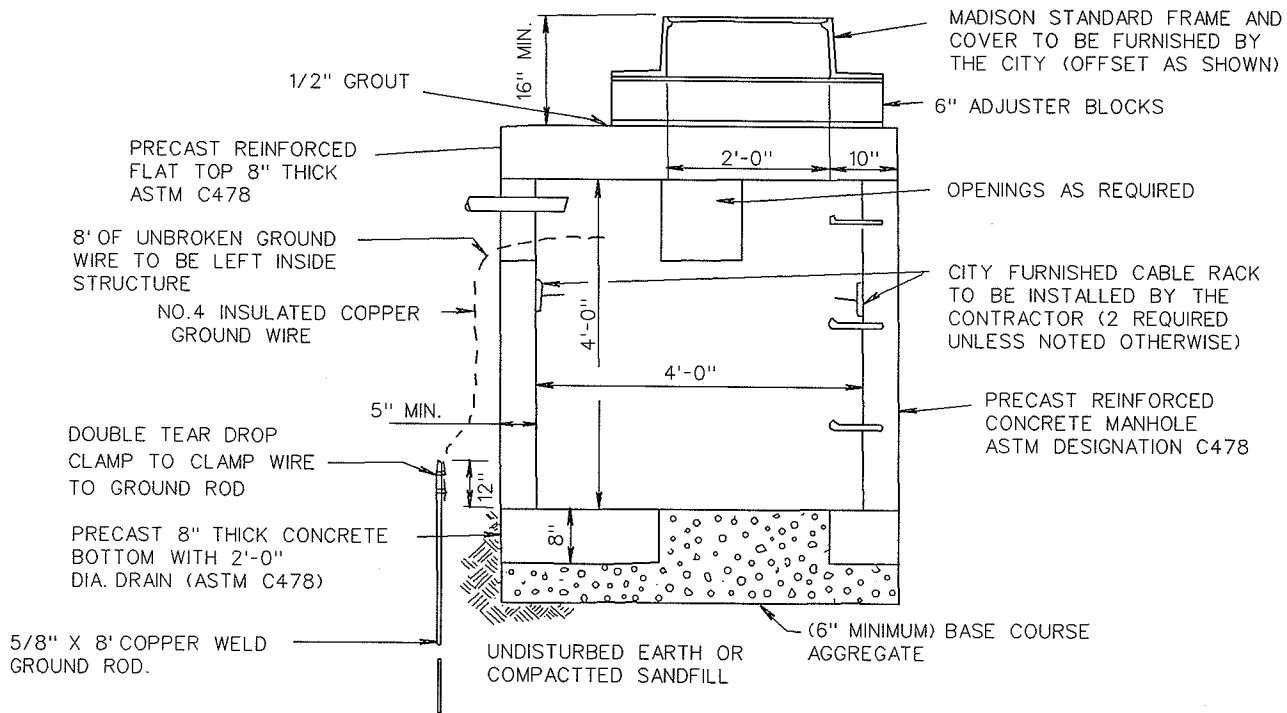
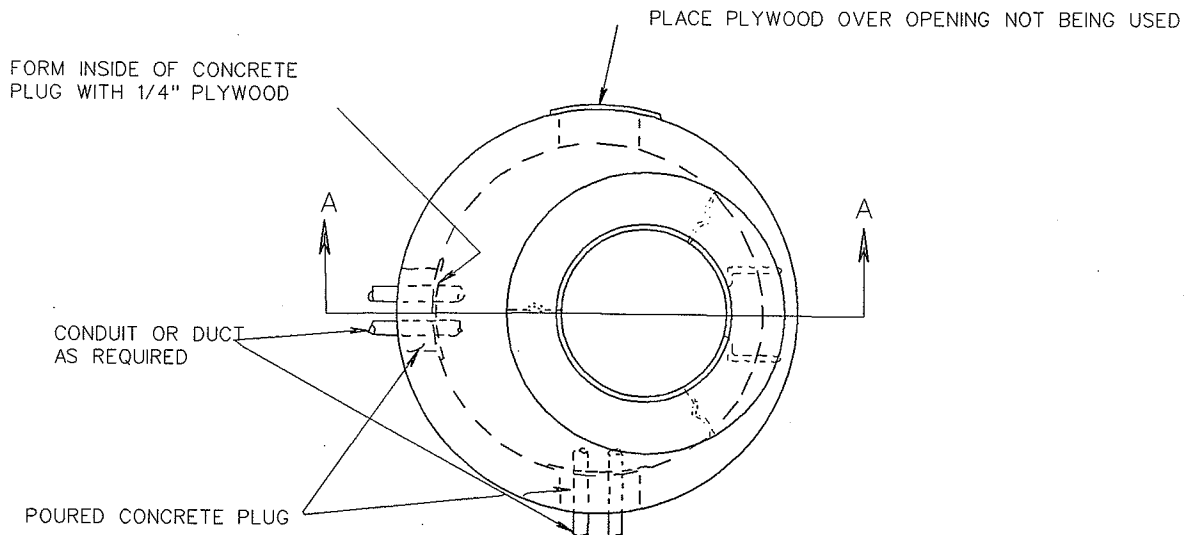
TYPE IV HANDHOLE
DETAIL

STANDARD DETAIL DRAWING 6.25



2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| TYPE V HANDHOLE DETAIL |
| STANDARD DETAIL DRAWING 6.26 |

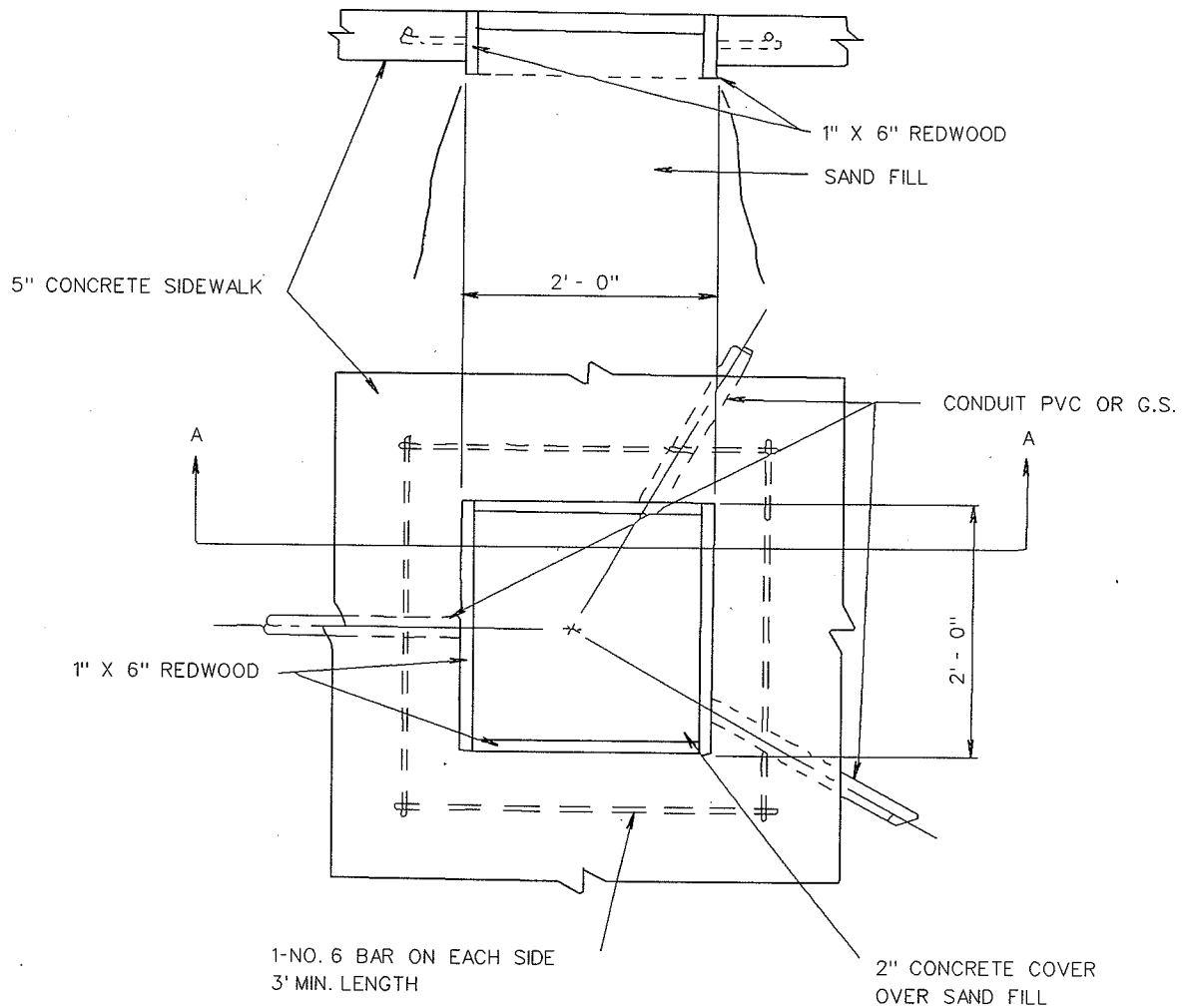


SECTION A-A

2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| ELECTRICAL UTILITY ACCESS STRUCTURE DETAIL |
| STANDARD DETAIL DRAWING 6.27 |

SECTION A-A



NOTE:

CONDUIT OR DUCT SHALL ENTER
BOX-OUT "ON CENTER" FOR
MAXIMUM DISTANCE BETWEEN
CONDUIT OR DUCT ENDS.

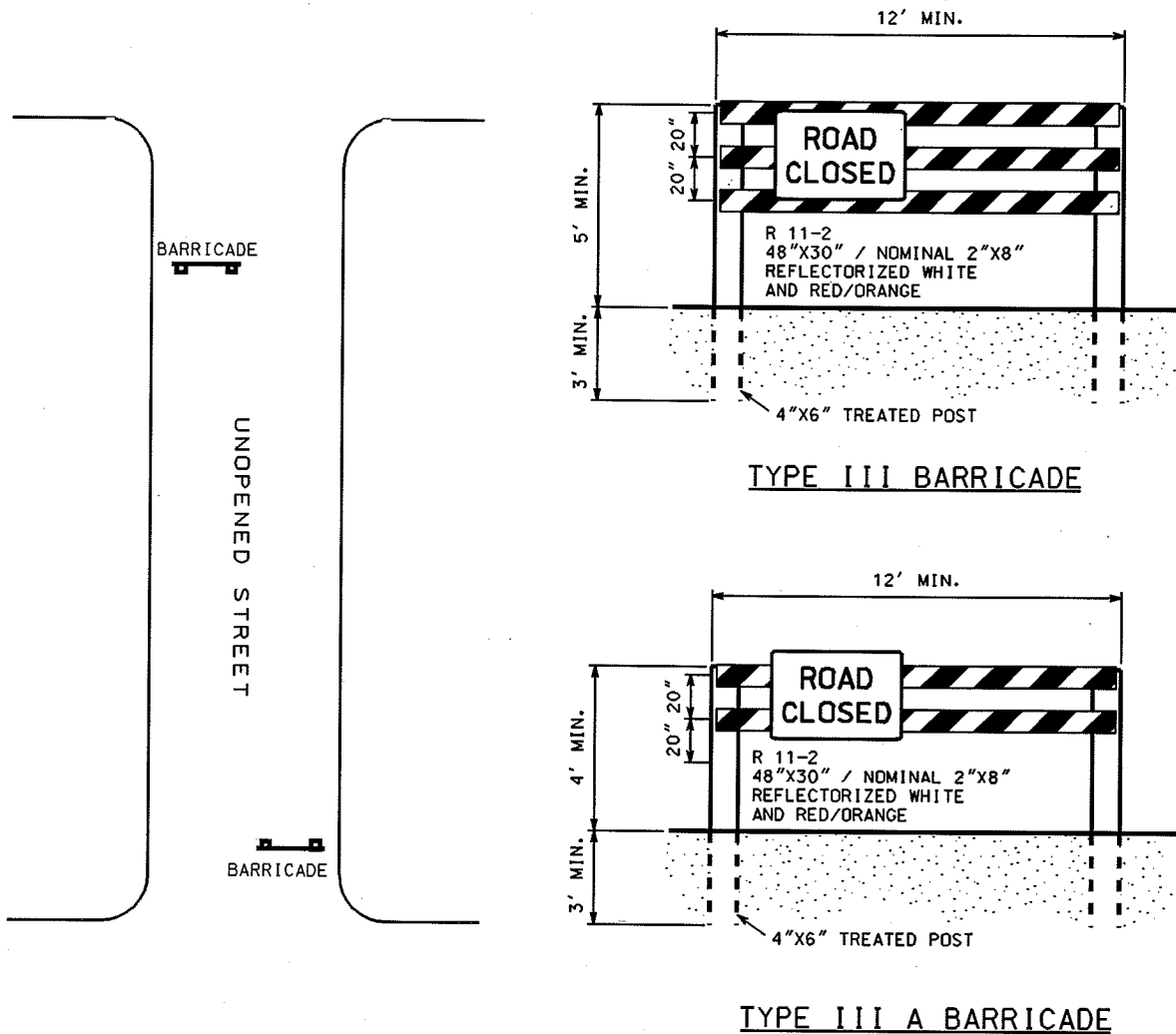
2004

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| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| ELECTRICAL CONDUIT BOX-OUT DETAIL |
| STANDARD DETAIL DRAWING 6.28 |

A TYPE III BARRICADE WITH SIGN ATTACHED IS REQUIRED FOR THESE CONDITIONS AND SHALL BE INSTALLED ON STREETS WHERE LARGE TRAFFIC VOLUMES EXIST OR A SAFETY HAZARD IS PRESENT. I.E., DROP IN GRADE IN EXCESS OF 12" FROM THE PAVEMENT SURFACE TO THE GROUND OR A PILE OF DEBRIS AT THE END OF THE STREET.

A TYPE III A BARRICADE WITH SIGN ATTACHED IS REQUIRED TO BE INSTALLED BY THE DEVELOPER RESPONSIBLE ON ALL STREETS WHICH HAVE NOT BEEN ACCEPTED BY THE CITY OF MADISON.

A PORTABLE BARRICADE OF THE REQUIRED TYPE MAY BE USED ON STREETS THAT WILL BE OPENED WITHIN 30 DAYS. A PERMANENT BARRICADE WILL BE USED ON ALL OTHER PROPOSED STREETS.



NOTE:
 EACH BARRICADE SHALL HAVE ALTERNATE REFLECTORIZED WHITE AND RED/ORANGE STRIPES 4" TO 6" WIDE AND PLACED AT A 45 DEGREE ANGLE. THE ENTIRE AREA OF WHITE AND RED/ORANGE SHALL BE REFLECTORIZED WITH A SMOOTH, SEALED OUTER SURFACE (3M "SCOTCHLITE" OR BETTER) THAT WILL DISPLAY THE SAME APPROXIMATE SIZE, SHAPE AND COLOR DAY AND NIGHT. FOR FURTHER INFORMATION CALL CITY TRAFFIC ENGINEERING AT 266-4961.

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| 2004 |
| CITY OF MADISON TRAFFIC ENGINEERING DIVISION |
| STREET BARRICADE DETAILS |
| STANDARD DETAIL DRAWING 6.29 |