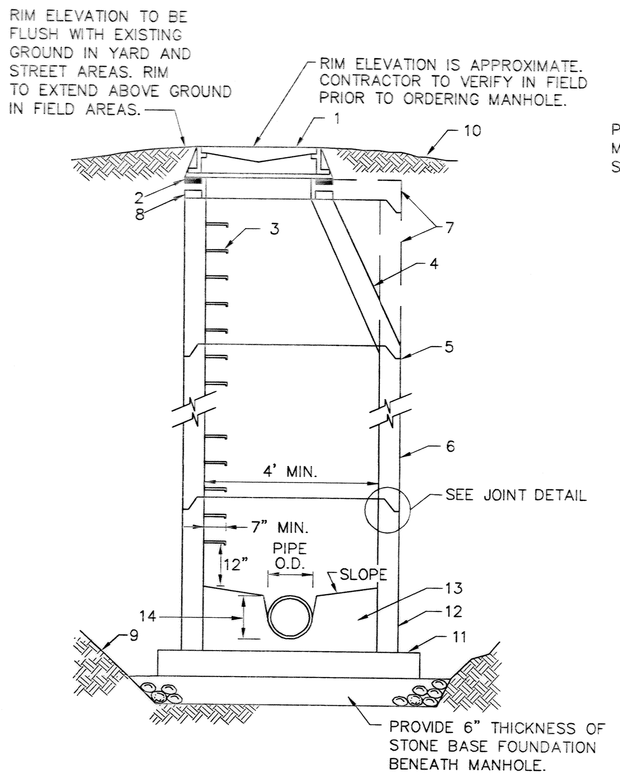
DETAILS



NEW PRECAST CONCRETE MANHOLE
NOT TO SCALE

NOTES

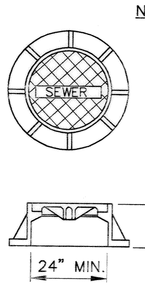
1. CAST IRON FRAME AND COVER. (FIELD VERIFY TOP OF CASTING ELEVATION).
2. CONCRETE OR MORTAR OUTSIDE OF FRAME ALL THE WAY AROUND.
3. MANHOLE STEPS SHALL BE IN PLACE 12" O.C. OF EXTRUDED ALUMINUM ALLOY CONFORMING TO ASTM 6061-T6, 6005-T5 OR 6351-T6.
4. STANDARD REINFORCED CONCRETE RISER SECTIONS CONFORMING TO ASTM C-478 SPECS. - LATEST REVISION.
5. USE TWO (2) ROWS OF RUBBER GASKET JOINT SEAL COMPOUND, BETWEEN EACH MANHOLE SECTION. COMPOUND SHALL "SQUEEZE OUT" EACH SIDE OF JOINT.
6. PAINT EXTERIOR WITH TWO COATS OF BITUMINOUS MASTIC COATING.
7. STANDARD RISER SECTION AND PRECAST FLAT, SLAB TOP SUITABLE FOR H-20 LOADING IN LIEU OF ECCENTRIC CONE FOR MANHOLES LESS THAN 5'-6" DEEP.
8. PRECAST CONCRETE GRADE RINGS MAXIMUM BUILD-UP OF 6". PLASTER ALL EXPOSED SURFACES WITH MORTER.
9. ALL EXCAVATION SLOPES ARE TO CONFORM TO OSHA STANDARDS.
10. FINISH GRADE FOR TOPS OF MANHOLE FRAMES AND COVERS.
11. PROVIDE CONCRETE BASE OF 3000 PSI CONCRETE OR PRECAST MONOLITHIC MANHOLE BASE.
12. PRECAST MONOLITHIC MANHOLE BASE CONFORMING TO ASTM C-478 SPECS. - LATEST REVISION.
13. 4000 PSI CONCRETE TO BE USED FOR BENCH WORK. INVERT TO BE TRUE TO LINE AND GRADE. HALF PIPE SECTIONS MAY BE USED ON STRAIGHT THROUGH MANHOLES. SLOPE ALL BENCHES TOWARD INVERT AT A MIN. SLOPE OF 1" PER FOOT.
14. INVERT DEPTH SHALL BE THE SAME AS SEWER PIPE DIAMETER.

NOTE:

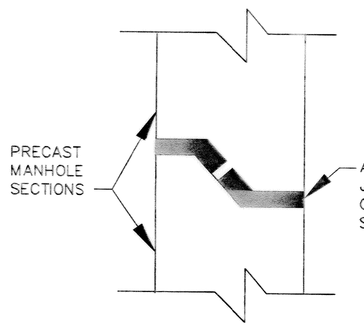
ALL COVERS SHALL HAVE CAST THE WORD "SEWER" IN LETTERS NOT LESS THAN 2" IN HEIGHT.

MANHOLE FRAMES AND COVERS SHALL BE A MINIMUM WEIGHT OF 350 POUNDS.

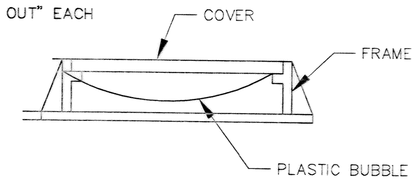
LIDS TO BE VENTED.



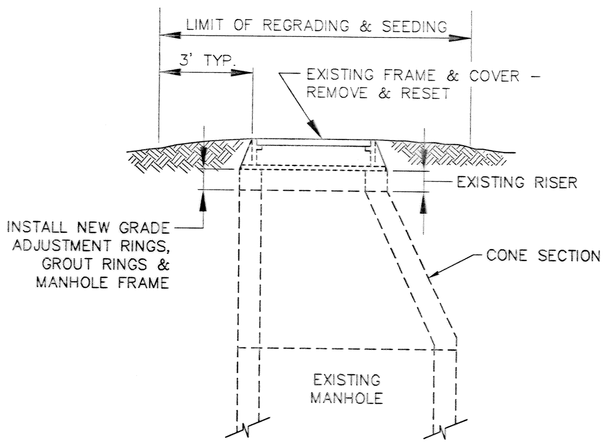
SANITARY SEWER
NEW MANHOLE FRAME & COVER
NOT TO SCALE



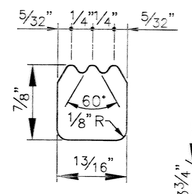
MANHOLE JOINT DETAIL
NOT TO SCALE

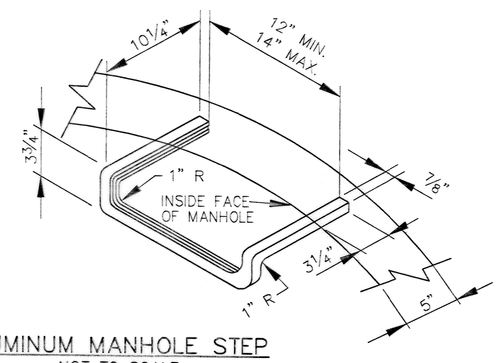


MANHOLE FRAME & COVER WATERPROOFING
NOT TO SCALE



DETAIL A
NOT TO SCALE



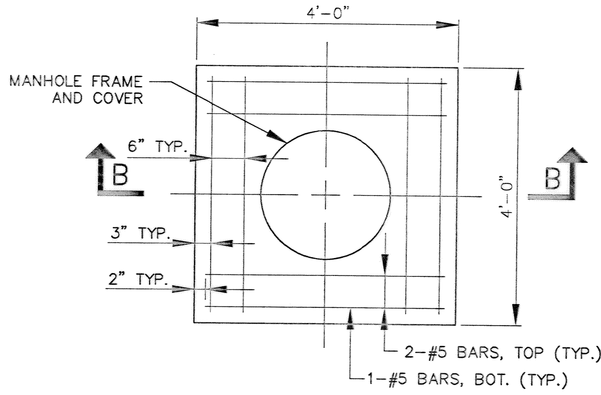


ALUMINUM MANHOLE STEP
NOT TO SCALE

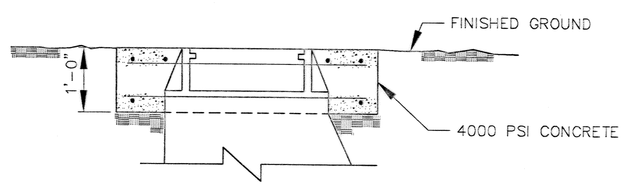
NOTE: STEPS TO BE FABRICATED OF ALUMINUM ALLOY 6061-T6.

PORTIONS OF STEPS TO BE EMBEDDED IN WALLS OF MANHOLES OR CHAMBERS TO BE DIPPED IN HEAVY BODIED BITUMINOUS PAINT.

USE NON-SHRINK GROUT TO INSTALL STEPS.

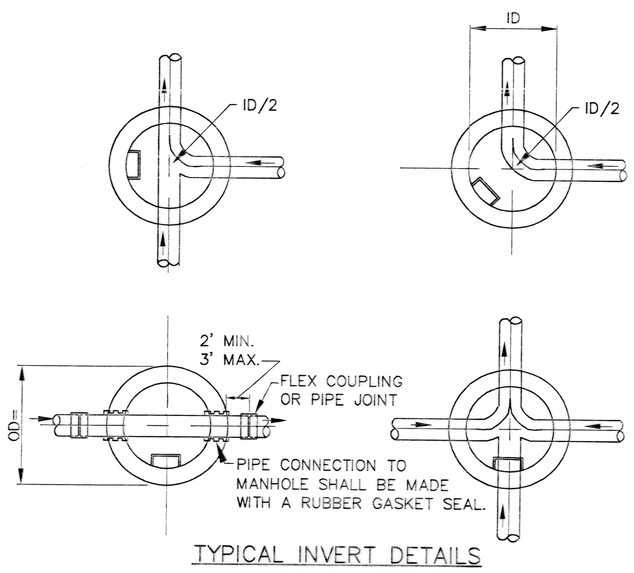


PLAN

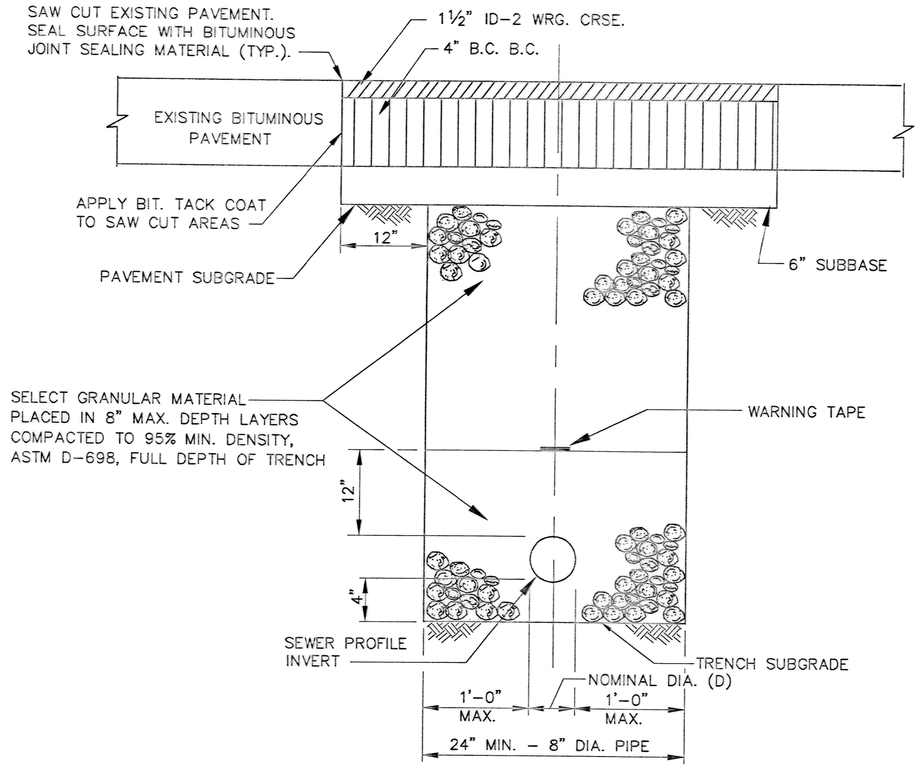


SECTION B-B

CONCRETE PROTECTION PAD
NOT TO SCALE

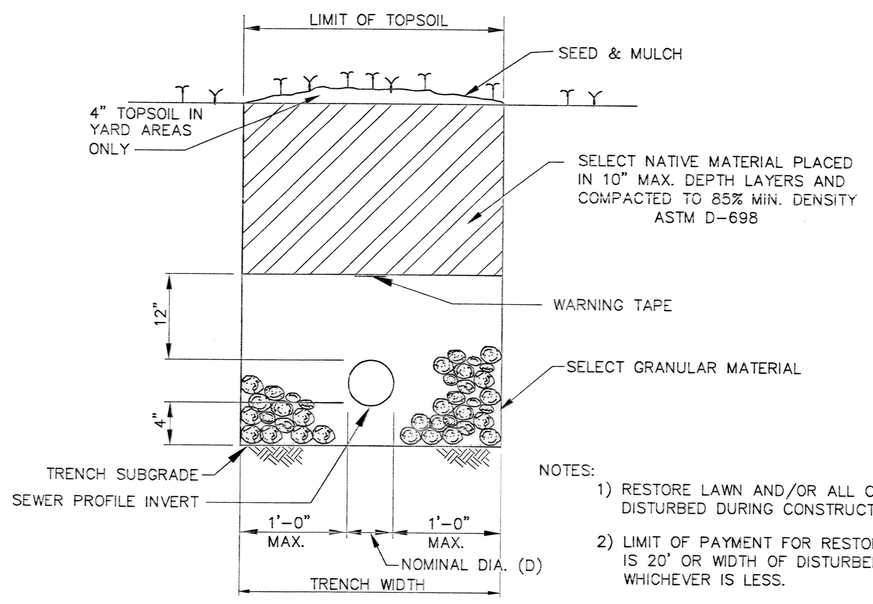


TYPICAL INVERT DETAILS
NOT TO SCALE



TRAFFIC AREAS
PAVEMENT RESTORATION DETAIL
NOT TO SCALE

NOTE: FOR BITUMINOUS DRIVE REPAIR USE THE FOLLOWING DEPTHS:
1" BITUMINOUS WEARING COURSE
2" BITUMINOUS CONCRETE BASE COURSE
6" SUBBASE



NOTES:
1) RESTORE LAWN AND/OR ALL OTHER AREAS DISTURBED DURING CONSTRUCTION.
2) LIMIT OF PAYMENT FOR RESTORATION IS 20' OR WIDTH OF DISTURBED AREA, WHICHEVER IS LESS.

YARD AND/OR FIELD RESTORATION
TYPICAL SEWER TRENCH SECTION
NOT TO SCALE

TABLE OF MANHOLE REPAIR

M.H. NO.	REPAIR COMMENTS
M.H. 21	LOCATE, RAISE TO GRADE, REPAIR PAVING.
M.H. 29	REPLACE STEPS, PROVIDE INFLOW SHIELD
M.H. 29X	BUILD UP SHELF, PROVIDE INFLOW SHIELD
M.H. 35B	REPLACE EXISTING MANHOLE WITH NEW MANHOLE
M.H. 37	REPOSITION FRAME & LID, GROUT, BUILD UP SHELF & CHANNEL
M.H. 37E	GROUT FRAME, BUILD UP SHELF AND CHANNEL
M.H. 38	REPLACE FRAME AND LID

SYMBOL	DESCRIPTION	DATE	APPROVAL
	REVISION		

TOBYHANNA ARMY DEPOT
DIRECTORATE OF PUBLIC WORKS
TOBYHANNA, PENNSYLVANIA

CHECKED TYAD PROJECT MANAGER	DRAWN E. SEARFOSS TYAD DRAFTSPERSON					
CHECKED CHIEF ENV. MGMT. DIV.	CHECKED CHIEF UTILITIES & GRNDS. DIV.					
CHECKED CHIEF SAFETY DIV.	CHECKED CHIEF FACILITIES MAINT. DIV.					
CHECKED CHIEF SECURITY DIV.	APPROVED CHIEF ENGINEERING DIV.					
CHECKED CHIEF FIRE & EMER. SVCS.	APPROVED COLONEL COMMANDER					
CHECKED OPERATING ACTIVITY	X PA. ONE CALL REGISTRATION NO.					
DRAWN A/E DRAFTSPERSON	APPROVED A/E PROJECT MANAGER	DATE DEC 03	SCALE FULL	SHEET NO. C3 OF 3	PROJECT NO. PR 19-04	DRAWING NO. C-8-41

REPAIR SANITARY SEWER
OLD AREA

NOTES AND DETAILS

PLOT DATE: 13 APRIL 2004 PLOT SCALE: FULL COR: X