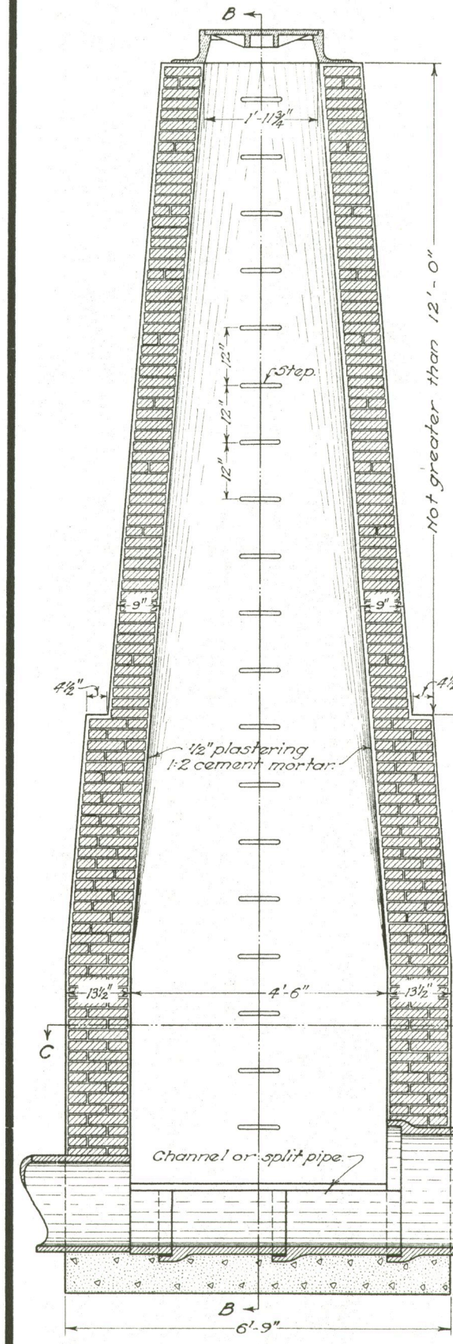
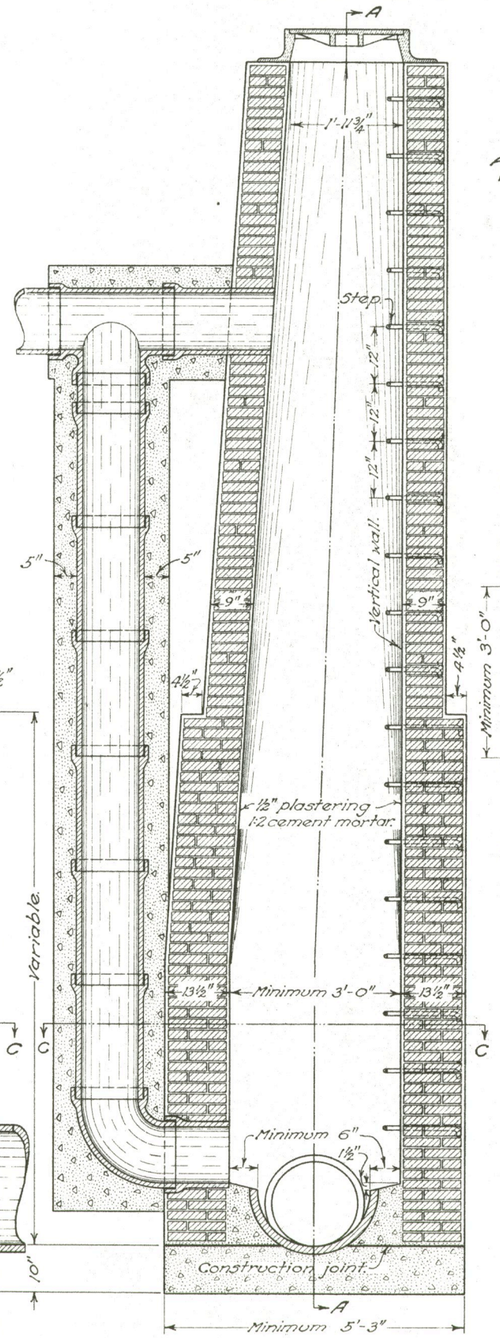
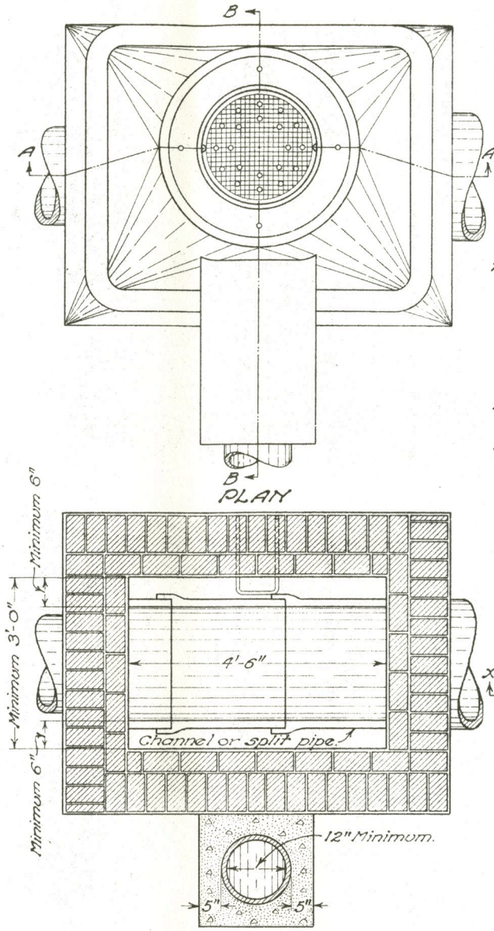
STANDARD No. 2 MANHOLE



SECTION A-A

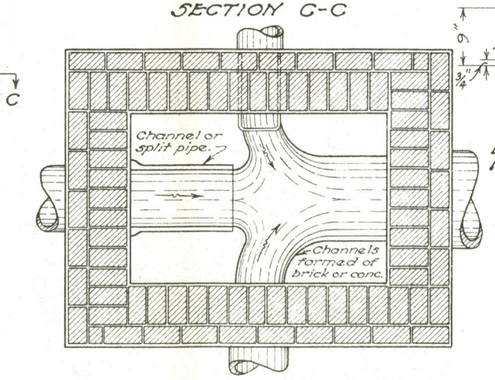


SECTION B-B



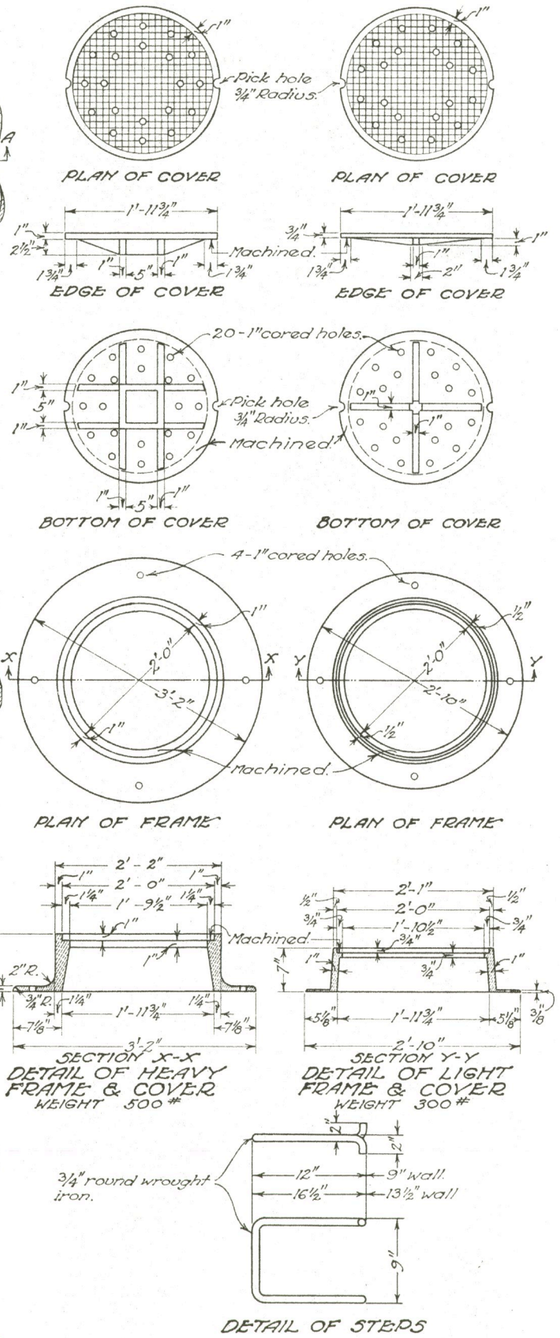
PLAN

SECTION C-C



SECTION BELOW SPRINGING LINE

Showing method of turning side drains which enter the manhole at the flow line.



NOTES

BEARING AREAS of frame and cover shall be machined to provide a firm and even seat for any portion of the cover. Frames and covers to be matched and marked.

SETTING OF CASTING:– The base of the frame shall be set in a full bed of Portland cement mortar, and so adjusted to conform to the finished pavement grade.

CASTINGS:– The heavy frame and cover shall be used whenever the manhole is placed within the limits of the pavement.

The light frame and cover may be used whenever the manhole is placed outside the limits of the pavement.

Castings shall be of cast iron in accordance with Material Details. The designs shall be essentially the same and equally as strong as those shown hereon, and shall be given one coat of asphaltum paint as per specifications. Weight approximately of light frame and cover 300 pounds, of heavy frame and cover 500 pounds.

STEPS shall be of good quality wrought iron in accordance with Material Details, free from cracks and shall be given one coat of asphaltum paint as per specifications.

CONSTRUCTION:– Manholes shall be built of brick laid in Portland cement mortar, every sixth course to be a stretcher course, and to be plastered on the inside and outside with 1-2 cement mortar ½" thick.

Water tables and bases of manholes may be constructed of either brick, grout filled, or 1-5½ concrete.

DROP PIPES for all drains which can not be connected to manhole at the flow line, shall be 12" minimum diameter with 1-5½ concrete encasing.

BUREAU OF LOCATION & DESIGN
OHIO DEPARTMENT OF HIGHWAYS

10-1933
4-1934
2-20-36

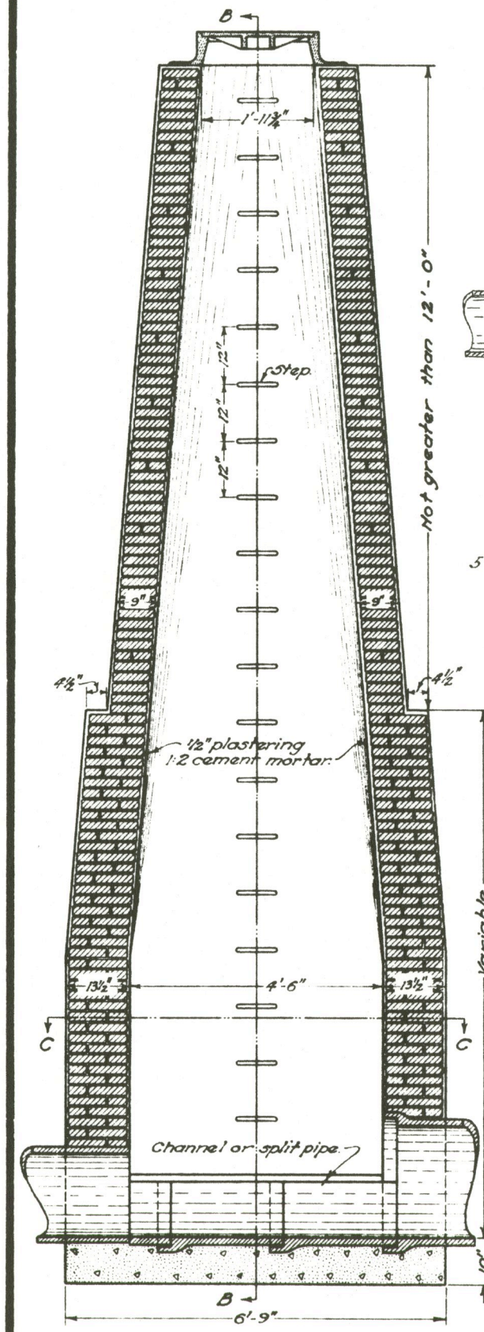
STANDARD MANHOLE

STANDARD CONSTRUCTION DRAWING

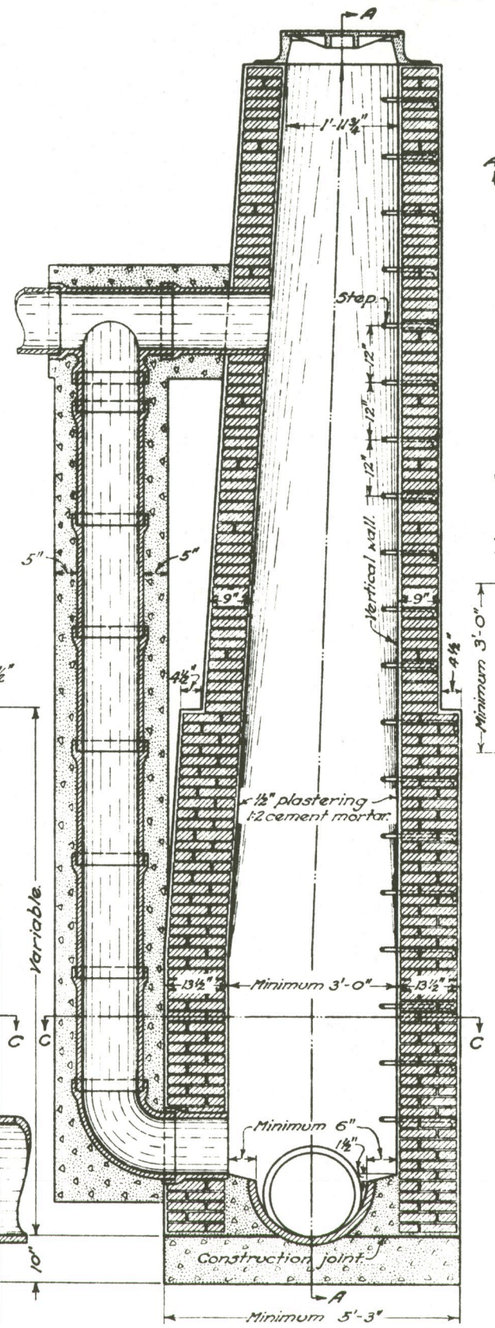
I-8 M.H.
No. 2

APPROVED K.L.R. CHIEF ENGINEER

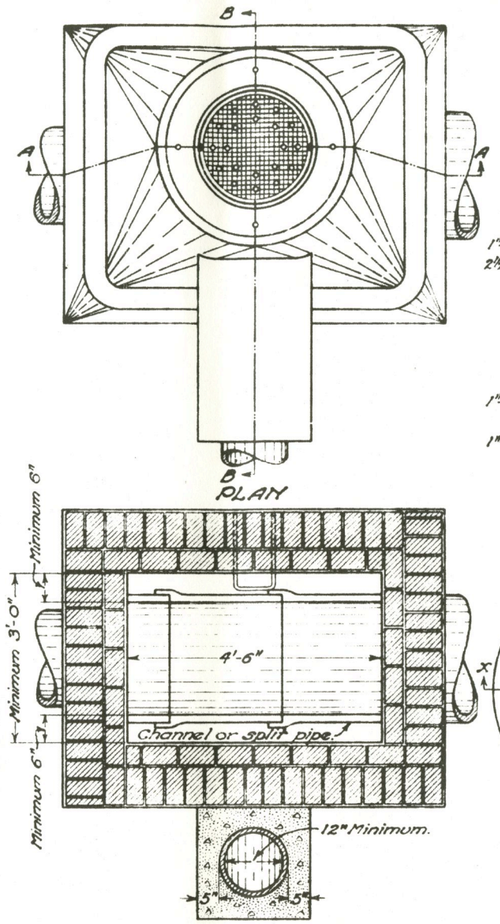
STANDARD No. 2 MANHOLE



SECTION A-A

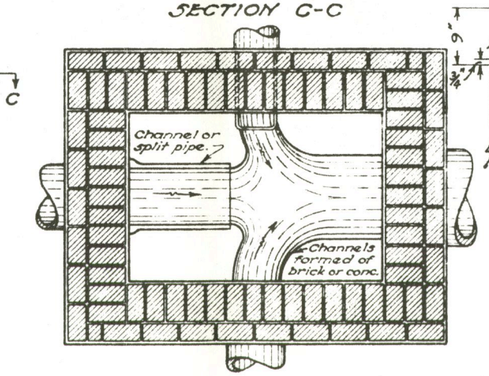


SECTION B-B



PLAN

SECTION C-C



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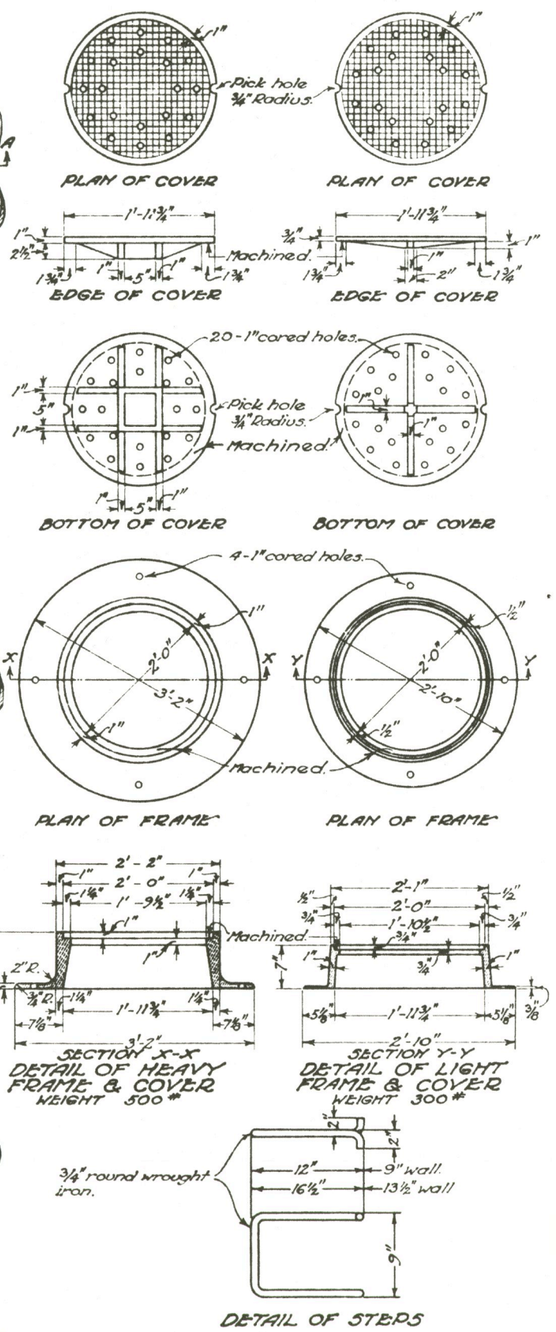

DETAIL OF STEPS

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DROP PIPES for all drains which can not be connected to manhole at the flow line, shall be 12" minimum diameter with Class "C" concrete encasing.

BUREAU OF LOCATION & RIGHT OF WAY
OHIO DEPARTMENT OF HIGHWAYS

STANDARD MANHOLE

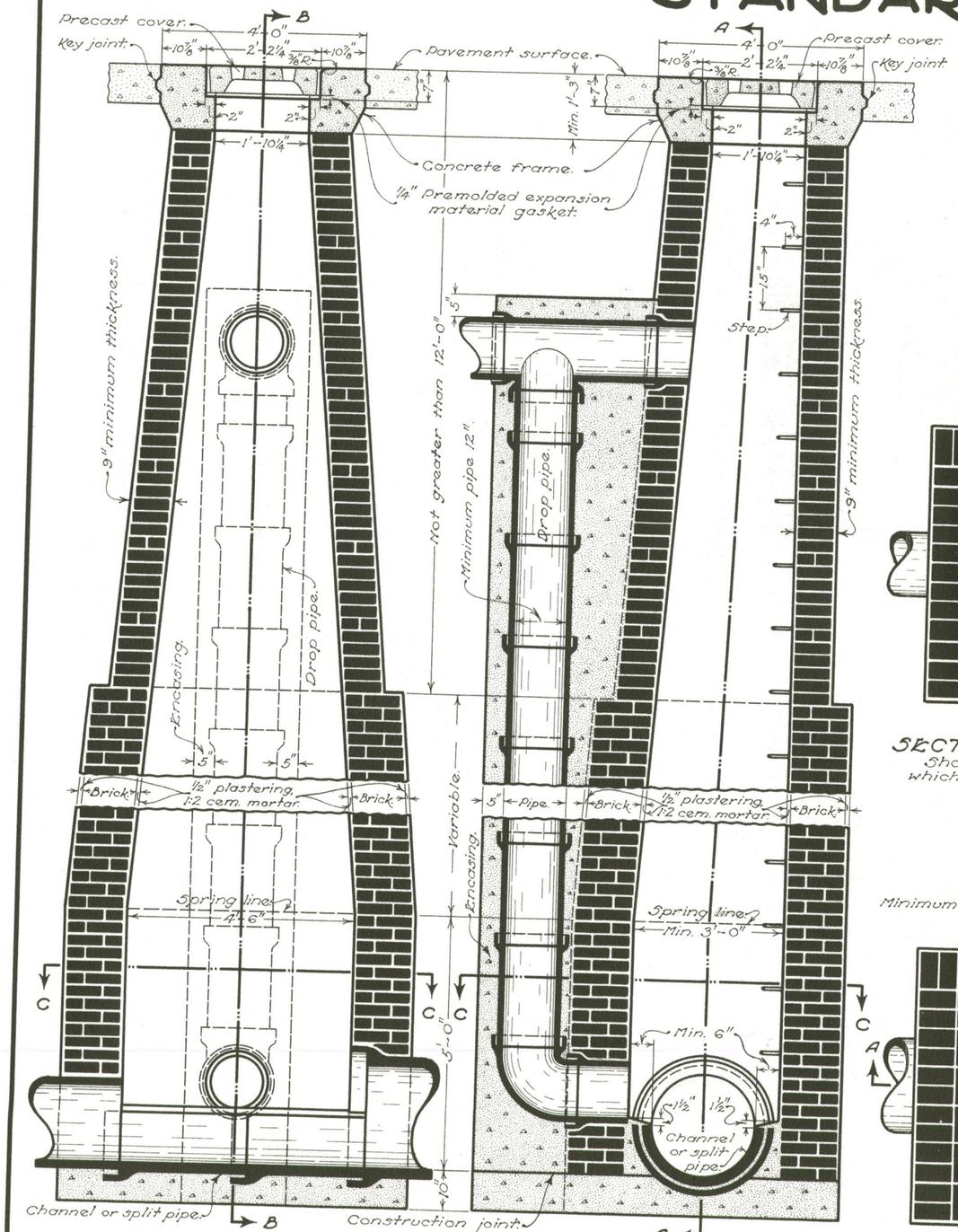
STANDARD CONSTRUCTION DRAWING

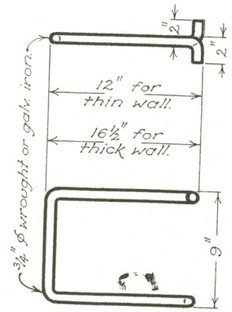
I-8 M.H. No. 2

APPROVED _____ CHIEF ENGINEER

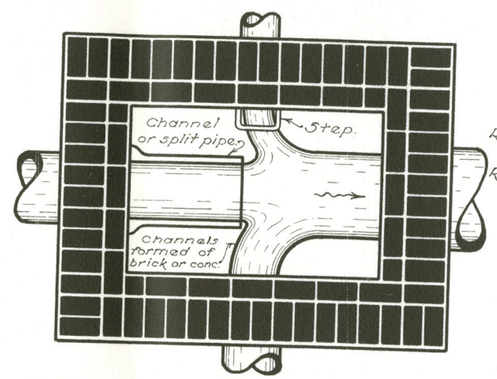
DATE
10-1933
4-1934
2-20-36
3-1-39

STANDARD No. 2 MANHOLE

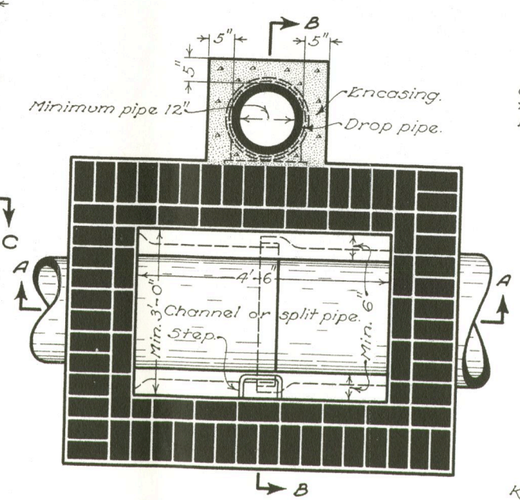


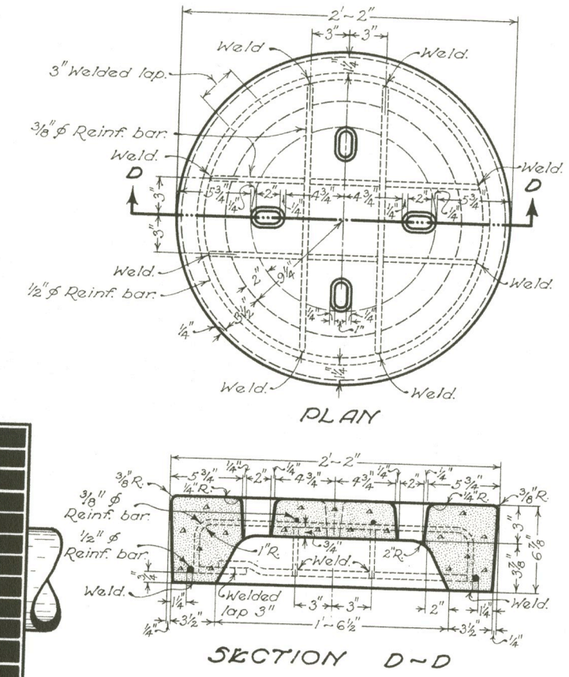


STEP

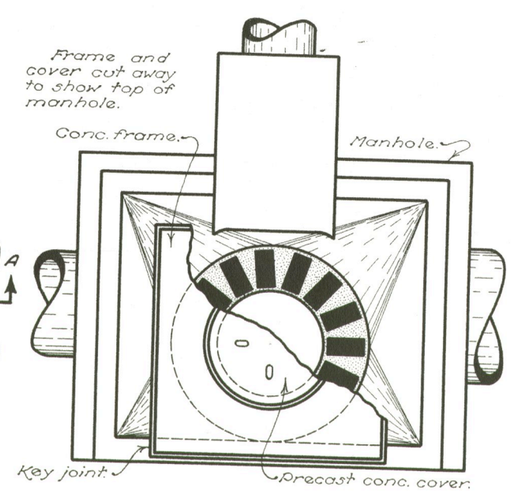


SECTION BELOW SPRING LINE
Showing method of turning side drains which enter the manhole at the flow line.





PRECAST CONCRETE COVER



NOTES

CONCRETE:- The cover shall be precast of Class "C" concrete. The frame, or that portion blocked out of the pavement and surrounding the cover, shall be concrete of the same mix as used in the pavement, and paid for as part of the pavement.

Covers and frames for manholes not in the pavement area shall be the same as those within the pavement area except that the key on the frame, or that portion of concrete surrounding the cover, may be omitted.

BEARING AREA of frame and cover shall be fitted with a 1/4 inch thick gasket cut from bituminous premolded material meeting the requirement of Sec. M-10.1.

The gasket if made in more than one piece shall be neatly fitted to cover the entire bearing area, with no lapping of edges, and shall be cemented to the bearing area of the frame, or concrete surrounding the cover, with asphalt cement, Sec. M-5.1, A-1.

STEPS shall be 3/4 inch round wrought iron free from cracks and painted with one coat of asphaltum paint as per specifications, or galvanized iron, spaced 15 inches center to center.

CONSTRUCTION:- Manholes shall be built of brick laid in Portland cement mortar and plastered on the inside and outside with 1-2 cement mortar 1/2 inch thick. Every sixth course, in the 9 inch minimum thickness wall, shall be a stretcher course.

Water tables and bases of manholes may be constructed of either brick, grout filled, or Class "C" concrete.

DROP PIPES for all drains which can not be connected to manhole at the flow line, shall be 12 inches minimum diameter with Class "C" concrete encasing.

BUREAU OF LOCATION & RIGHT OF WAY
OHIO DEPARTMENT OF HIGHWAYS

STANDARD MANHOLE

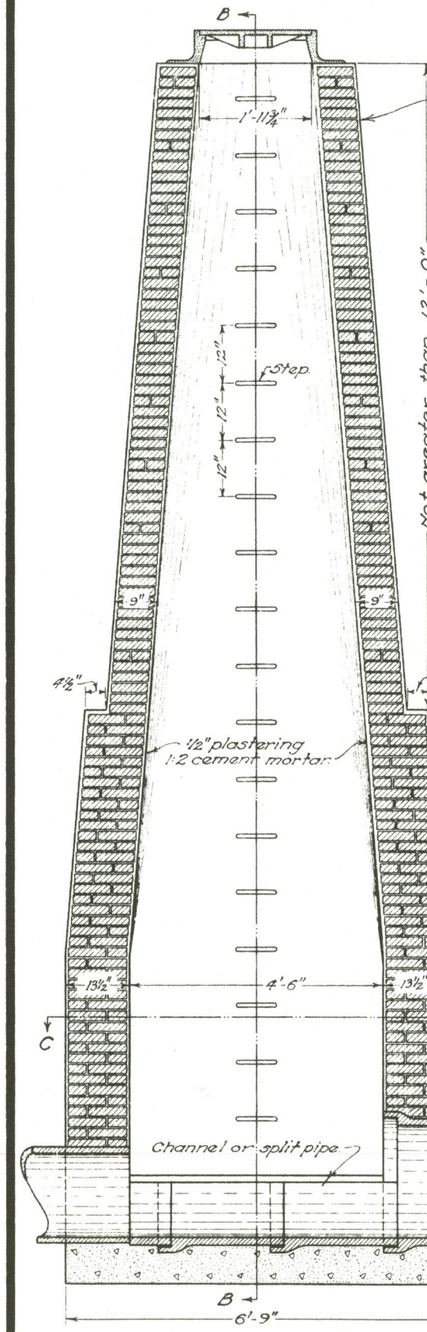
STANDARD CONSTRUCTION DRAWING

I-8 M.H. No. 2

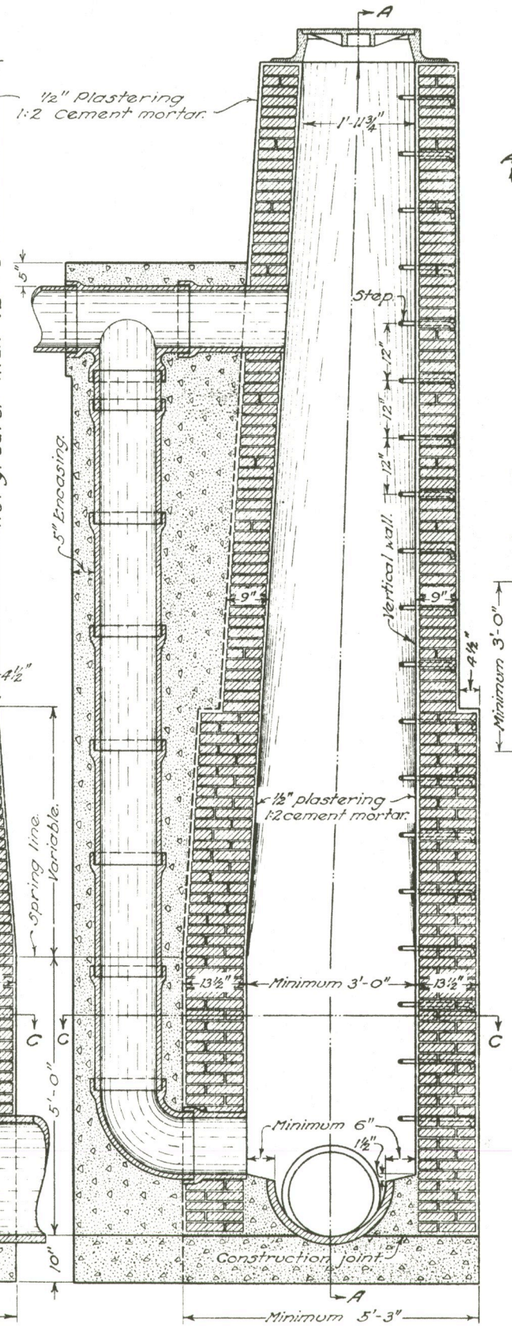
DATE
10-1933
4-1934
2-20-36
3-1-39
4-1-42

APPROVED M.D.S. CHIEF ENGINEER

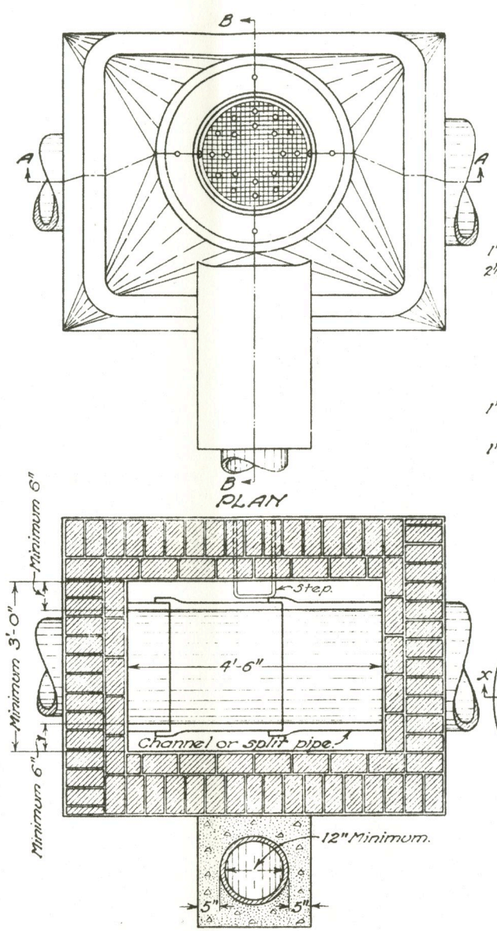
STANDARD No. 2 MANHOLE



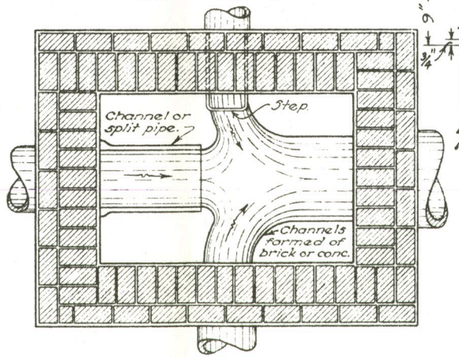
SECTION A-A



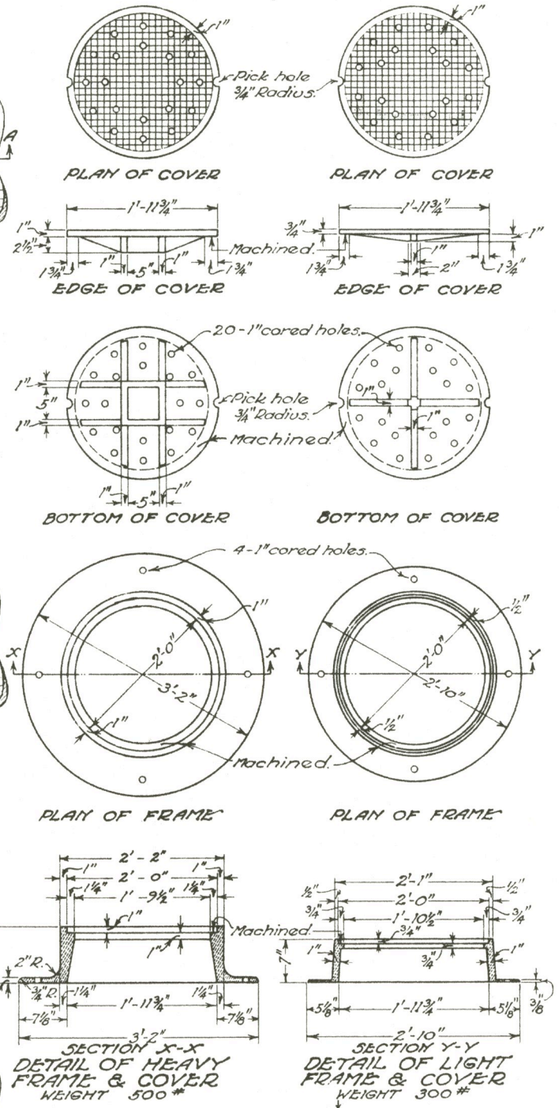
SECTION B-B

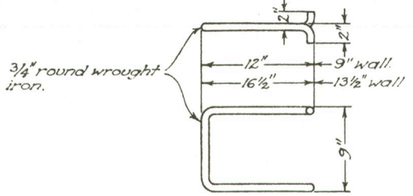


SECTION C-C



SECTION BELOW SPRINGING LINE
Showing method of turning side drains which enter the manhole at the flow line.





DETAIL OF STEPS

NOTES

BEARING AREAS of frame and cover shall be so fitted and finished as to provide a firm and even seat for all portions of the cover in the frame. No projections shall exist on bearing areas of either casting and each cover shall seat in its frame without rocking. Frames and covers shall be fitted, matched and marked before delivery to the project.

SETTING OF CASTING:— The base of the frame shall be set in a full bed of Portland cement mortar, and so adjusted to conform to the finished pavement grade.

CASTINGS:— The heavy frame and cover shall be used whenever the manhole is placed within the limits of the pavement.

The light frame and cover may be used whenever the manhole is placed outside the limits of the pavement.

Castings shall be of cast iron in accordance with Material Details. The designs shall be essentially the same and equally as strong as those shown hereon, and shall be given one coat of asphaltum paint as per specifications. Weight approximately of light frame and cover 300 pounds; of heavy frame and cover 500 pounds.

STEPS shall be of good quality wrought iron in accordance with Material Details, free from cracks and shall be given one coat of asphaltum paint as per specifications.

CONSTRUCTION:— Manholes shall be built of brick laid in Portland cement mortar, and shall be plastered on the inside and outside with 1-2 cement mortar ½" thick. Every sixth course shall be a stretcher course.

Water tables and bases of manholes may be constructed of either brick, grout filled, or Class "C" concrete.

DROP PIPES for all drains, which can not be connected to manhole at the flow line, shall be 12" minimum diameter with Class "C" concrete encasing.

BUREAU OF LOCATION & RIGHT OF WAY
OHIO DEPARTMENT OF HIGHWAYS

STANDARD MANHOLE

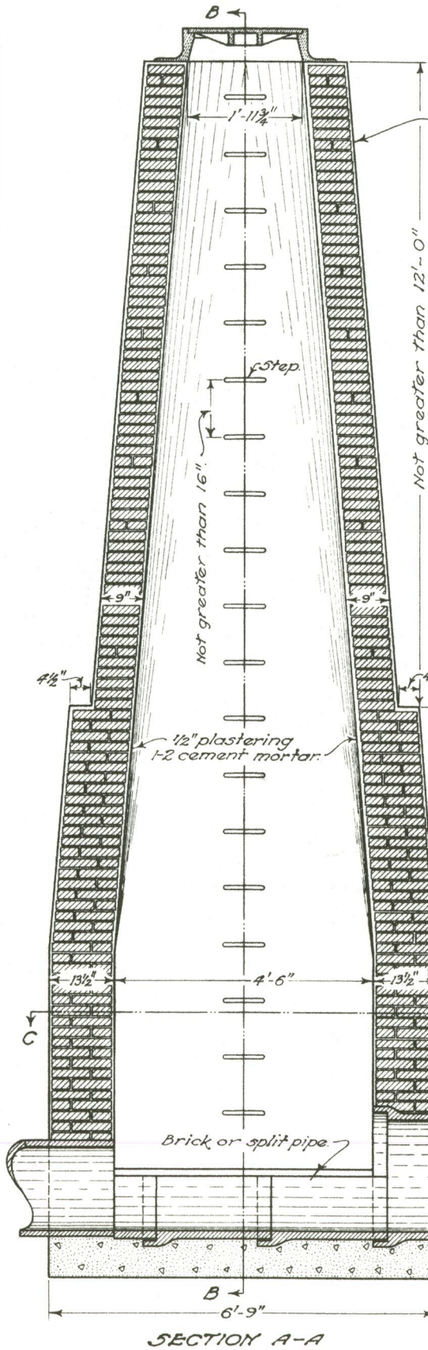
STANDARD CONSTRUCTION DRAWING

I-8 M.H.
No. 2

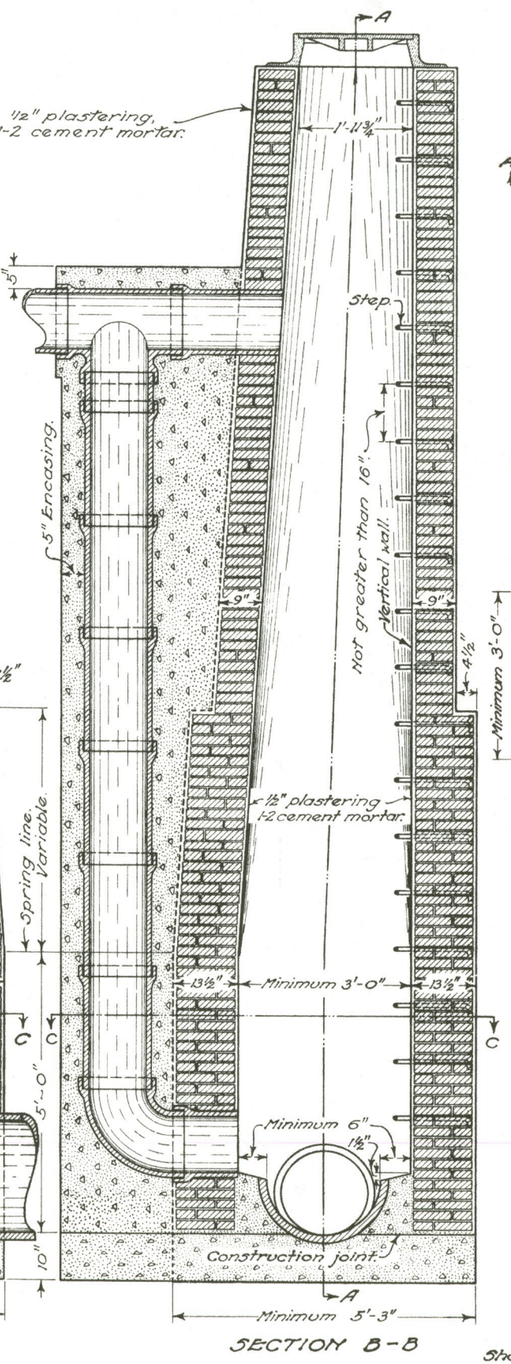
APPROVED M.D.S. CHIEF ENGINEER

DATE
10-1933
4-1934
2-20-36
3-1-39
4-1-42
2-20-45

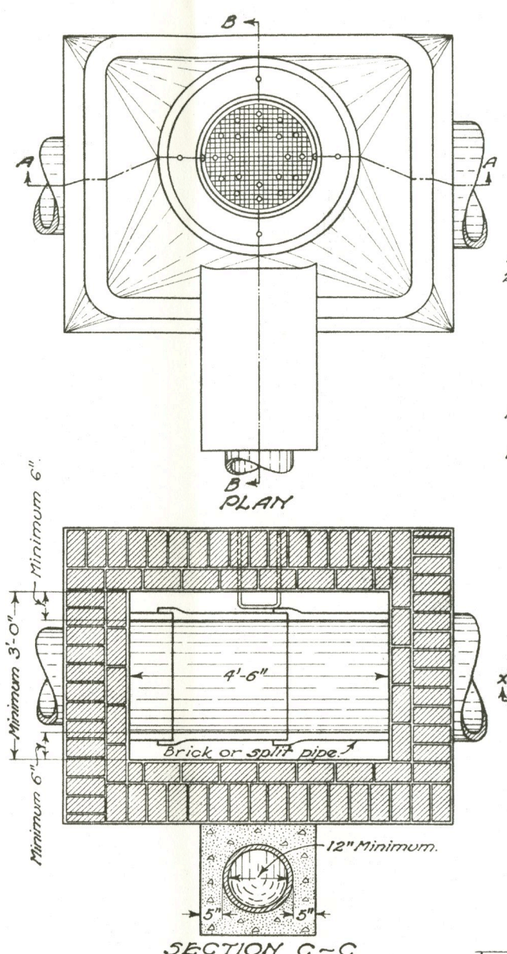
STANDARD No. 2 MANHOLE



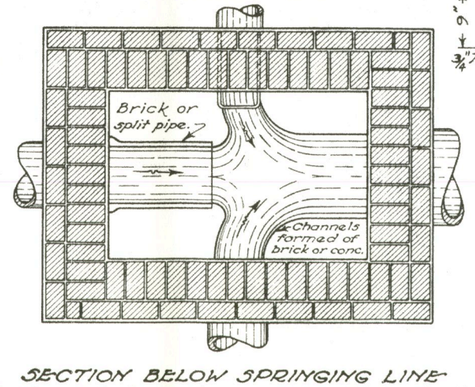
SECTION A-A



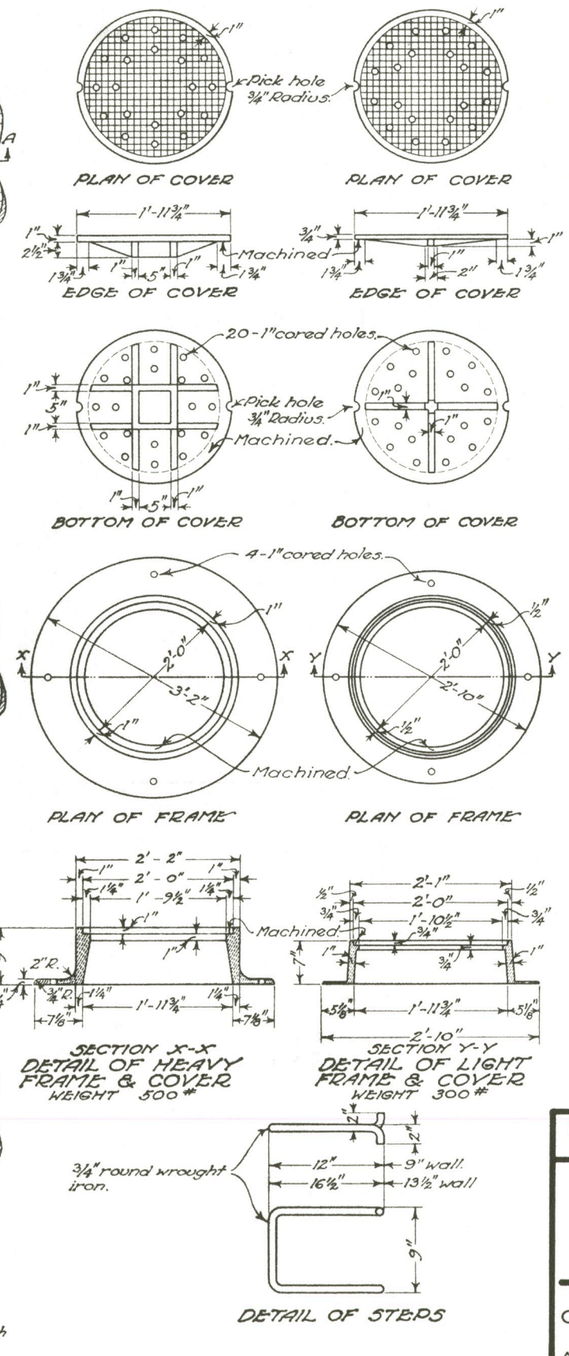
SECTION B-B



SECTION C-C



SECTION BELOW SPRINGING LINE
Showing method of turning side drains which enter th manhole at the flow line.



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CONSTRUCTION:- Manholes shall be built of brick laid in Portland cement mortar, and shall be plastered on the inside and outside with 1-2 cement mortar 1/2" thick. Every sixth course shall be a stretcher course.

Bottom of manhole shall be Class "C" concrete.

Channel sections of the manhole shall be constructed of split pipe or brick except curved sections which may be built by forming a channel in the concrete.

DROP PIPES for all drains, which can not be connected to manhole at the flow line, shall be 12" minimum diameter with Class "C" concrete encasing.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

STANDARD MANHOLE

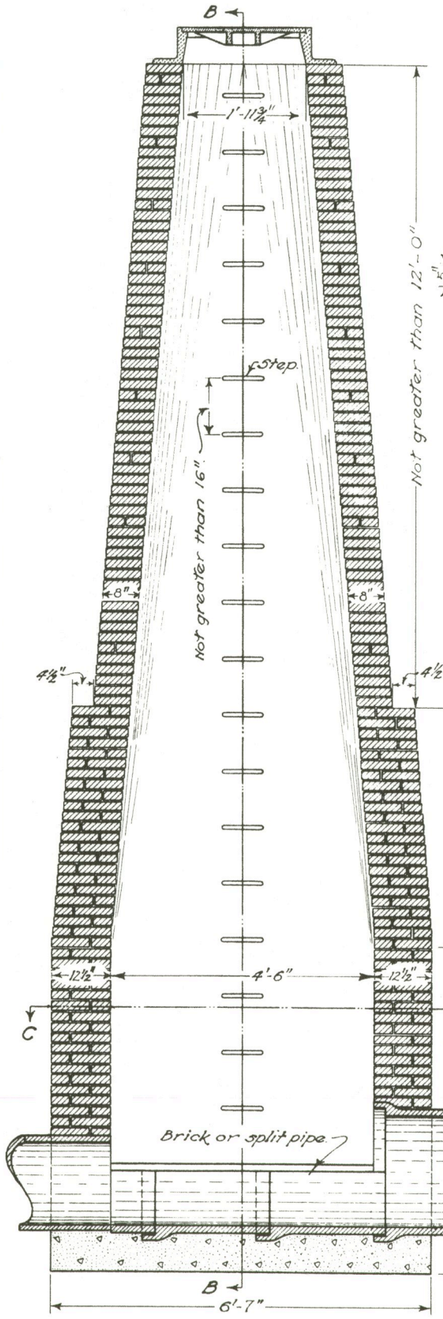
STANDARD CONSTRUCTION DRAWING

I-8 M.H.
No. 2

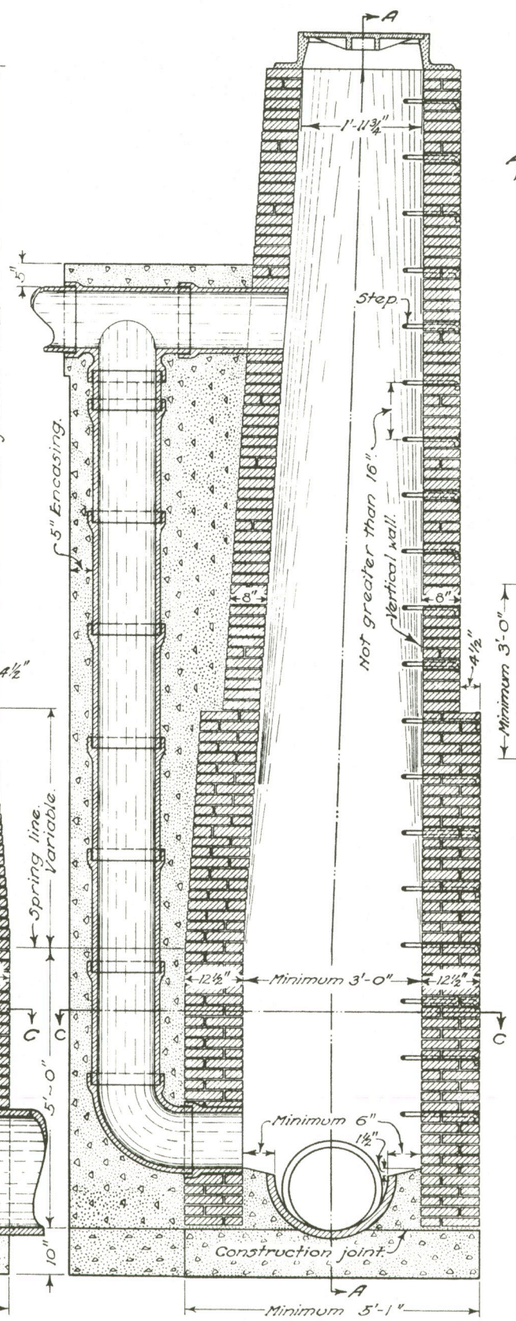
APPROVED G.J.J. CHIEF ENGINEER

DATE
10-1933
4-1934
2-20-36
3-1-39
4-1-42
2-20-45
5-1-47

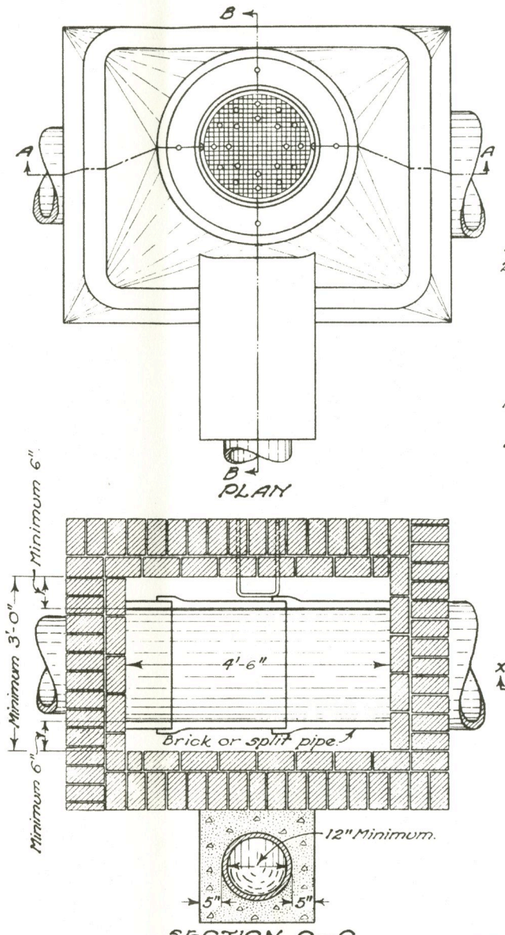
STANDARD No. 2 MANHOLE

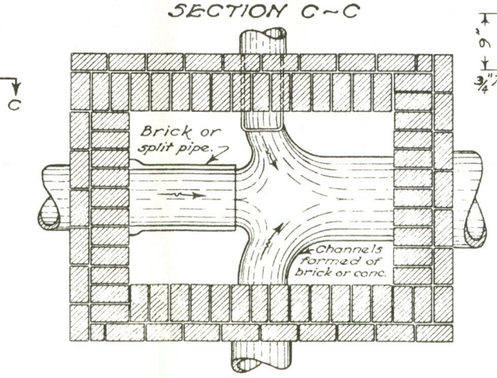


SECTION A-A



SECTION B-B





SECTION BELOW SPRINGING LINE
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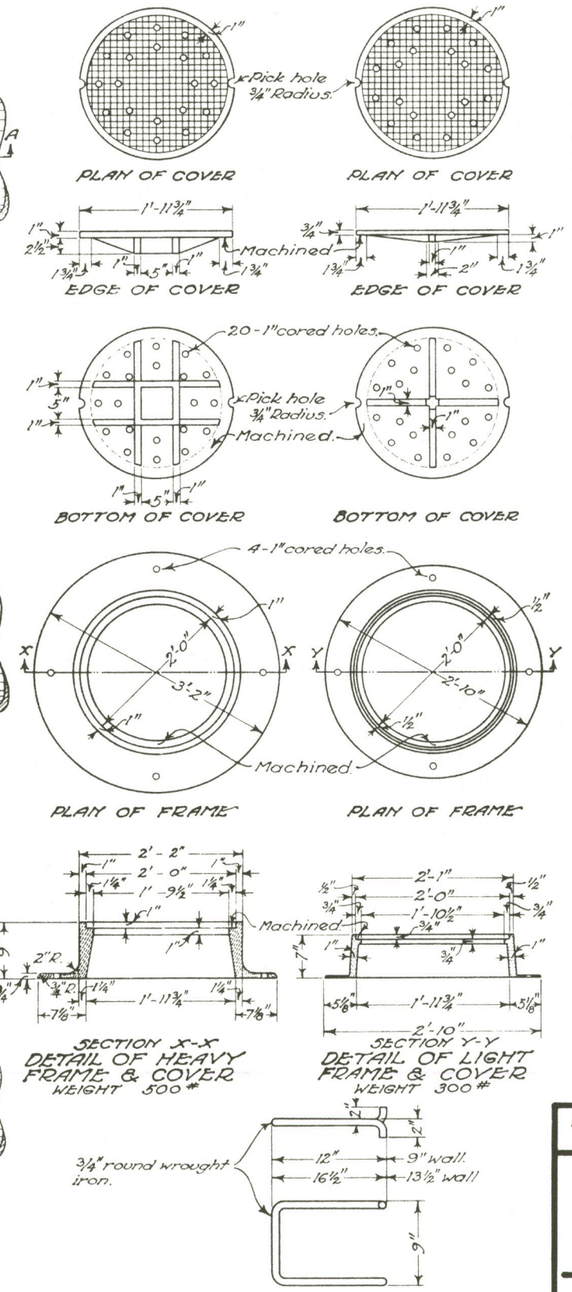

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BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

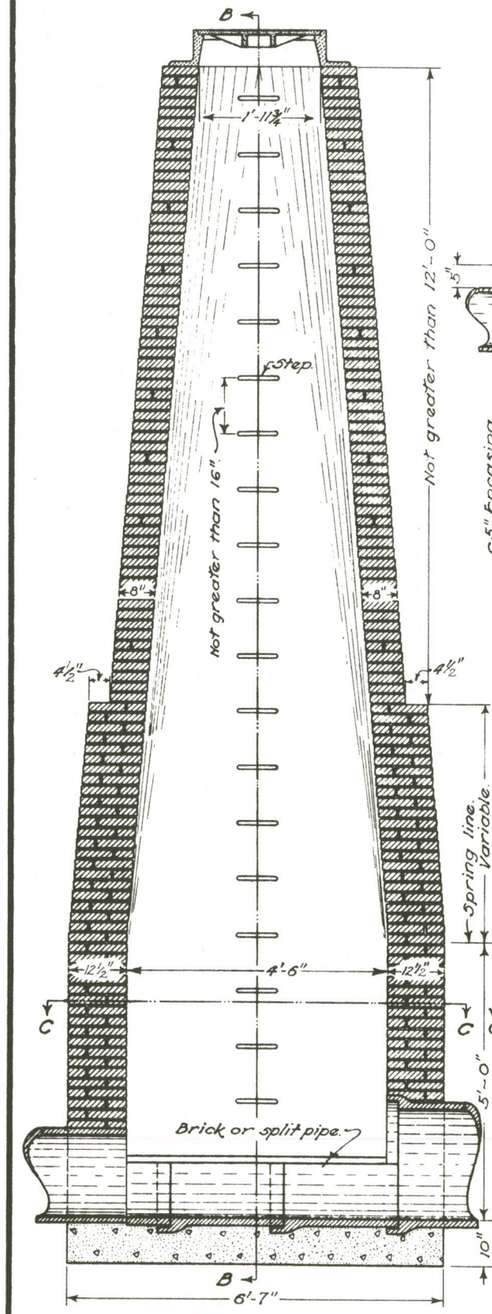
STANDARD MANHOLE

STANDARD CONSTRUCTION DRAWING — I-8 M.H. No. 2

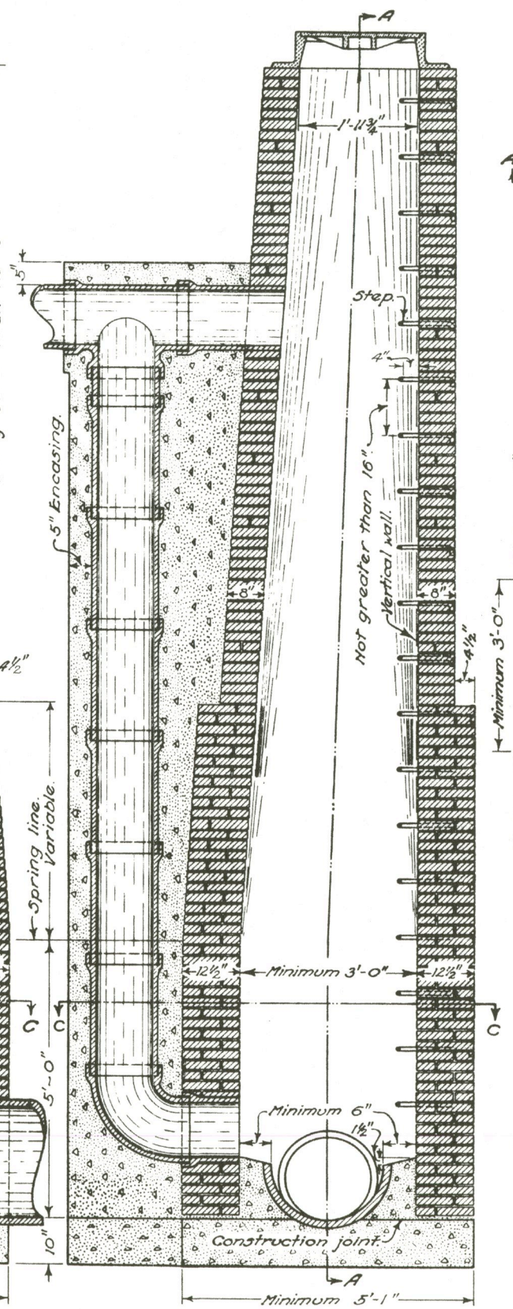
APPROVED K.L.R. CHIEF ENGINEER

DATE
10-1933
4-1934
2-20-36
3-1-39
4-1-42
2-20-45
5-1-47
1-2-51

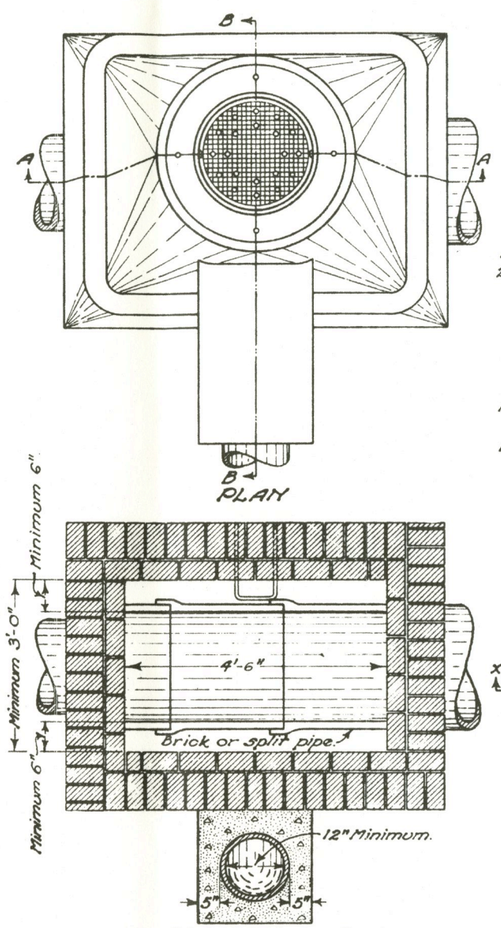
STANDARD No. 2 MANHOLE



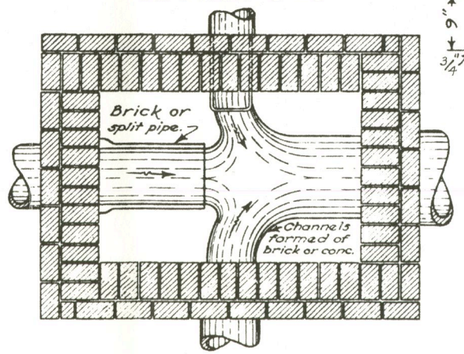
SECTION A-A



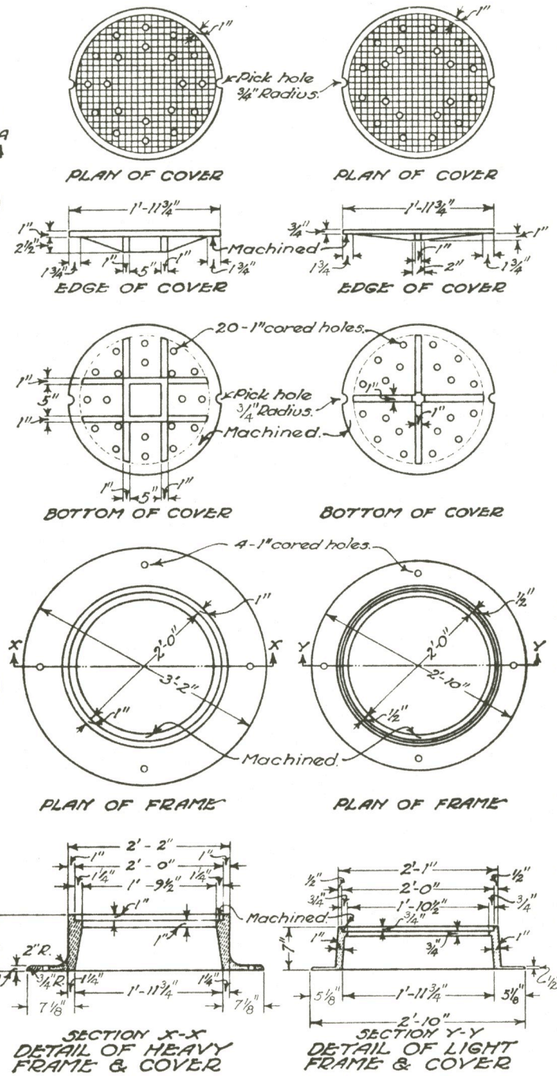
SECTION B-B

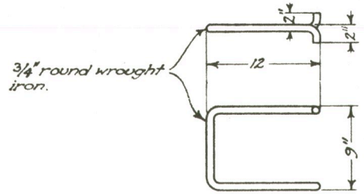


SECTION C-C



SECTION BELOW SPRINGING LINE
Showing method of turning side drains which enter the manhole at the flow line.





DETAIL OF STEPS

NOTES

BEARING AREAS of frame and cover shall be so fitted and finished as to provide a firm and even seat for all portions of the cover in the frame. No projections shall exist on bearing areas of either casting and each cover shall seat in its frame without rocking. Frames and covers shall be fitted, matched and marked before delivery to the project.

SETTING OF CASTING:– The base of the frame shall be set in a full bed of Portland cement mortar, and so adjusted to conform to the finished pavement grade.

CASTINGS:– The heavy frame and cover shall be used whenever the manhole is placed within the limits of the pavement.

The light frame and cover may be used whenever the manhole is placed outside the limits of the pavement.

Castings shall be of cast iron in accordance with Material Details. The design shall be essentially the same and equally as strong as those shown hereon, and shall be given one coat of asphaltum paint as per specifications.

Minimum weight of light frame and cover 275 pounds, of heavy frame and cover 475 pounds.

STEPS shall be of good quality wrought iron in accordance with Material Details, free from cracks and shall be given one coat of asphaltum paint as per specifications.

CONSTRUCTION:– Manholes shall be built of brick, precast solid concrete blocks, precast concrete rings, or cast in place concrete. When manholes are constructed of brick, every sixth course shall be a stretcher course.

Bottom of manhole shall be class "C" concrete.

Channel sections in the manhole shall be constructed of split pipe or brick except curved sections which may be built by forming a channel in the concrete.

DROP PIPES for all drains, which cannot be connected to manhole at the flow line shall be 12 inches minimum diameter with Class "C" concrete encasing.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

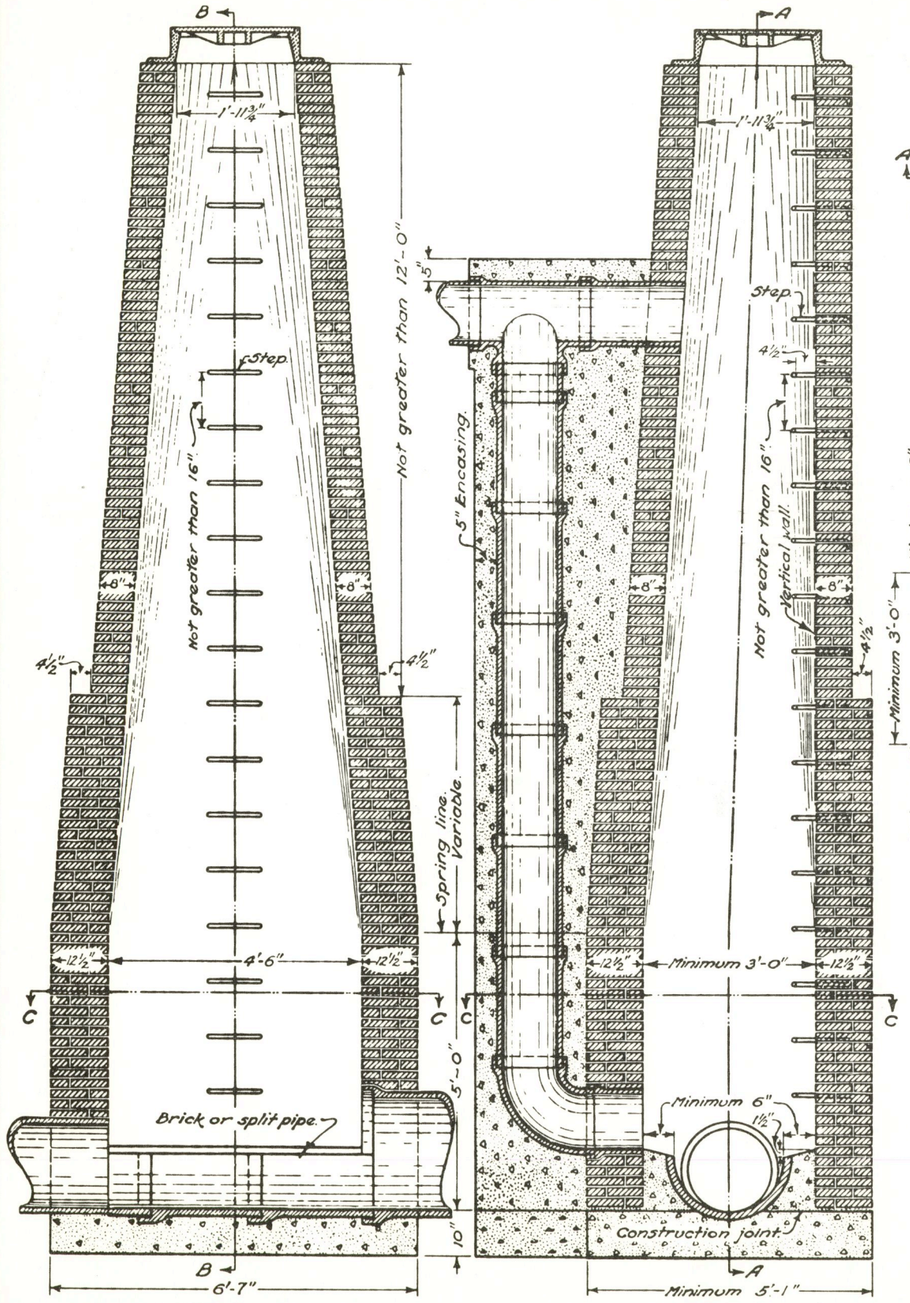
STANDARD MANHOLE

STANDARD CONSTRUCTION DRAWING — 1-8 M.H. No. 2

APPROVED K.L.R. CHIEF ENGINEER

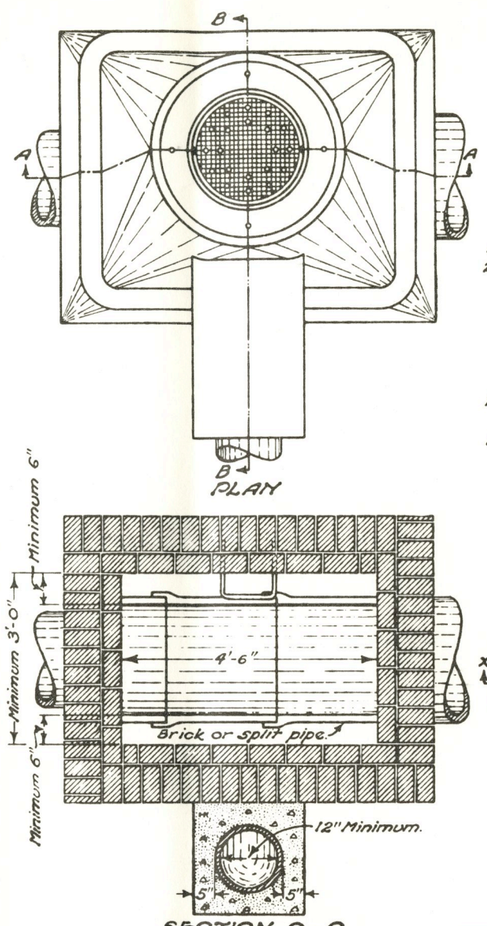
DATE
10-1-1933
4-1-1934
2-20-36
3-1-39
4-1-42
2-20-45
5-1-47
1-2-51
5-1-52

STANDARD No. 2 MANHOLE

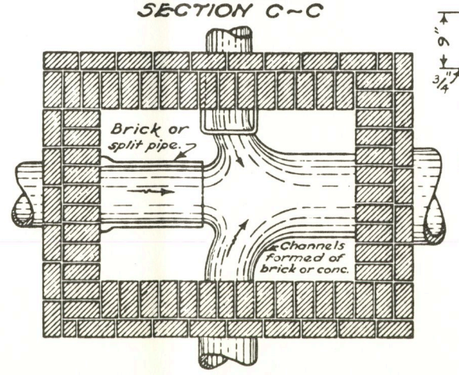


SECTION A-A

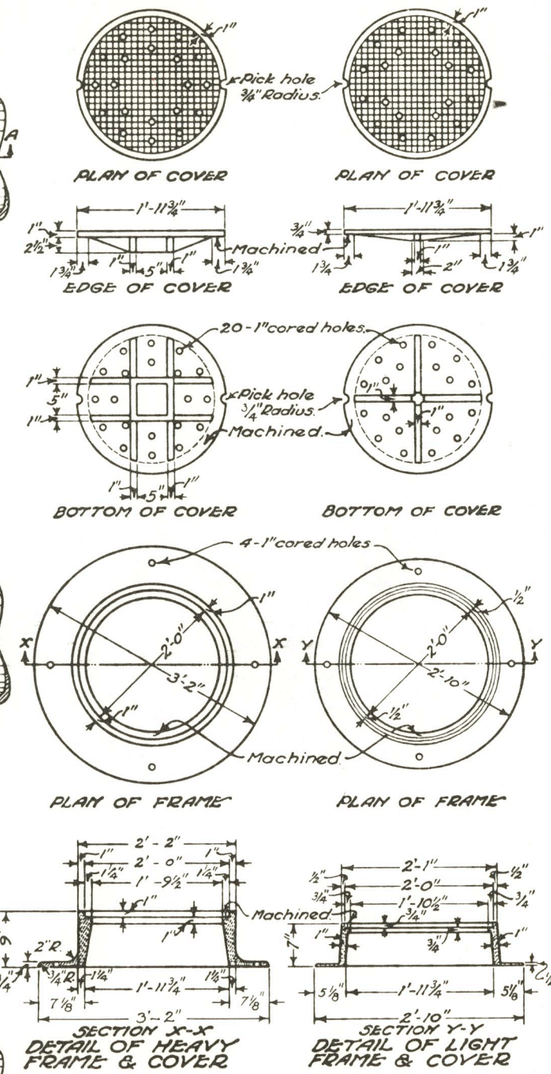
SECTION B-B

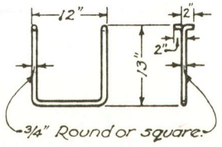


SECTION C-C



SECTION BELOW SPRINGING LINE
Showing method of turning side drains which enter the manhole at the flow line.





STEP DETAIL

NOTES

BEARING AREAS of frame and cover shall be so fitted and finished as to provide a firm and even seat for all portions of the cover in the frame. No projections shall exist on bearing areas of either casting and each cover shall seat in its frame without rocking. Frames and covers shall be fitted, matched and marked before delivery to the project.

SETTING OF CASTING:— The base of the frame shall be set in a full bed of portland cement mortar, and so adjusted to conform to the finished pavement grade.

CASTINGS:— The heavy frame and cover shall be used whenever the manhole is placed within the limits of the pavement.

The light frame and cover may be used whenever the manhole is placed outside the limits of the pavement.

Castings shall meet the requirements of Item I-8. The design shall be essentially the same and equally as strong as those shown hereon.

Minimum weight of light frame and cover 275 pounds, of heavy frame and cover 475 pounds.

STEPS shall be wrought iron or nodular iron meeting the requirements of Item I-8.

CONSTRUCTION:— Manholes shall be built of brick, precast solid concrete blocks, precast concrete rings, or cast in place concrete. When manholes are constructed of brick, every sixth course shall be a stretcher course.

Bottom of manhole shall be class "C" concrete.

Channel sections in the manhole shall be constructed of split pipe or brick except curved sections which may be built by forming a channel in the concrete.

DROP PIPES for all drains, which cannot be connected to manhole at the flow line shall be 12 inches minimum diameter with class "C" concrete encasing.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

DATE 2-1-63

STANDARD MANHOLE

STANDARD CONSTRUCTION DRAWING 1-8 M.H. No. 2

APPROVED R.N. Ricketts ENGR. L. & D.