



STANDARD PLAN DRAWINGS

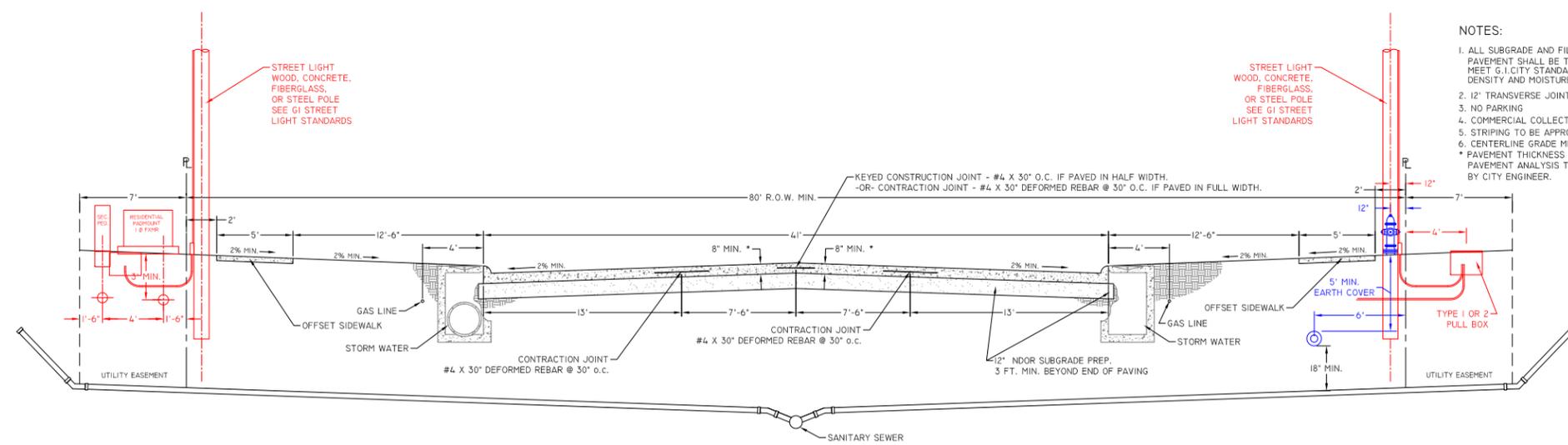
CURRENT REVISION: 4/18/2002



STANDARD PLAN DRAWINGS INDEX

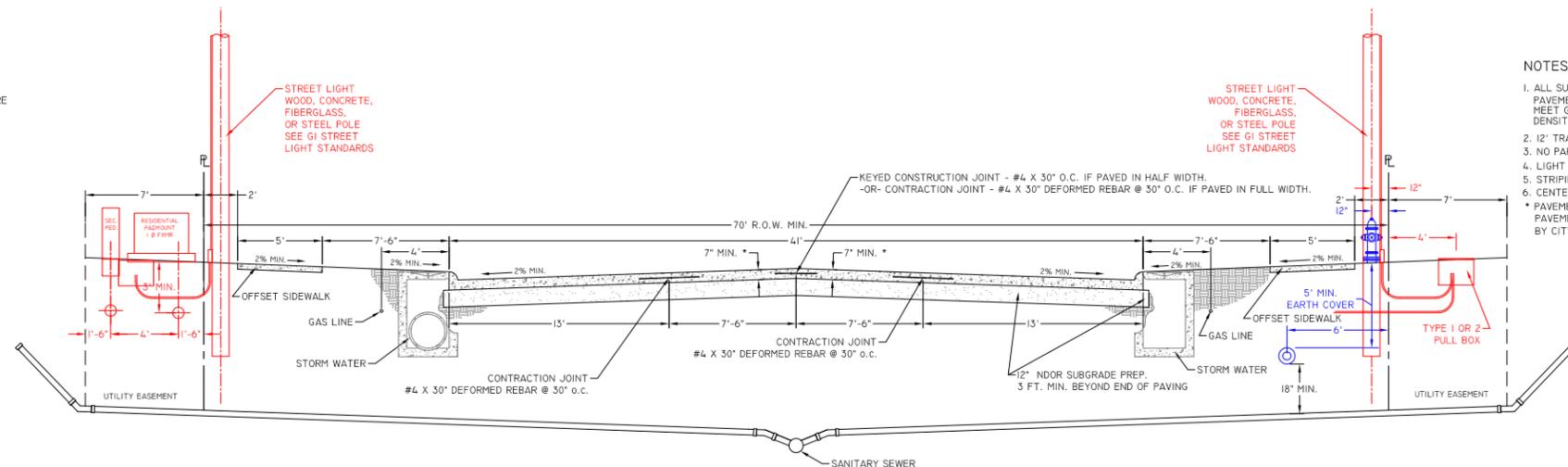
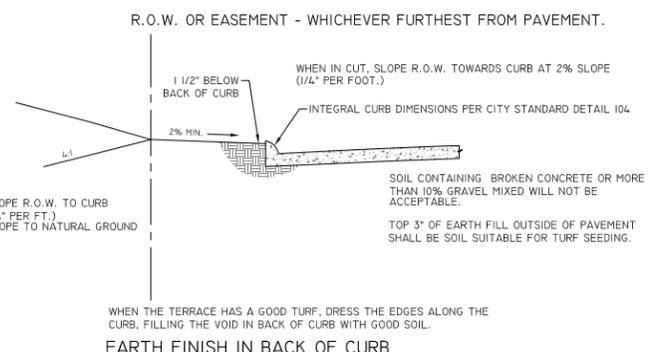
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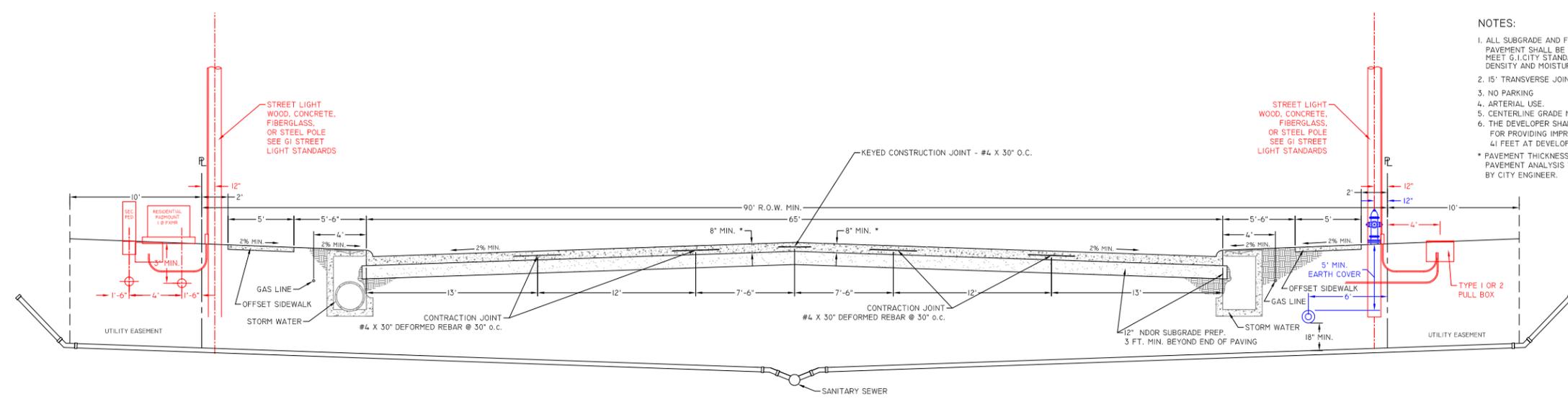
- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. NO PARKING
 4. COMMERCIAL COLLECTOR.
 5. STRIPING TO BE APPROVED BY PUBLIC WORKS DEPT.
 6. CENTERLINE GRADE MIN. 0.3%.
 - * PAVEMENT THICKNESS DEPENDANT UPON PAVEMENT ANALYSIS TO BE APPROVED BY CITY ENGINEER.

COMMERCIAL COLLECTOR
TYPICAL 41' PAVEMENT WIDTH



- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. NO PARKING
 4. LIGHT COMMERCIAL USE.
 5. STRIPING TO BE APPROVED BY PUBLIC WORKS DEPT.
 6. CENTERLINE GRADE MIN. 0.3%.
 - * PAVEMENT THICKNESS DEPENDANT UPON PAVEMENT ANALYSIS TO BE APPROVED BY CITY ENGINEER.

LIGHT COMMERCIAL USE
TYPICAL 41' PAVEMENT WIDTH



- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 15" TRANSVERSE JOINTS
 3. NO PARKING
 4. ARTERIAL USE.
 5. CENTERLINE GRADE MIN. 0.3%.
 6. THE DEVELOPER SHALL NOT BE RESPONSIBLE FOR PROVIDING IMPROVEMENTS WIDER THAN 41 FEET AT DEVELOPER'S SOLE EXPENSE.
 - * PAVEMENT THICKNESS DEPENDANT UPON PAVEMENT ANALYSIS TO BE APPROVED BY CITY ENGINEER.

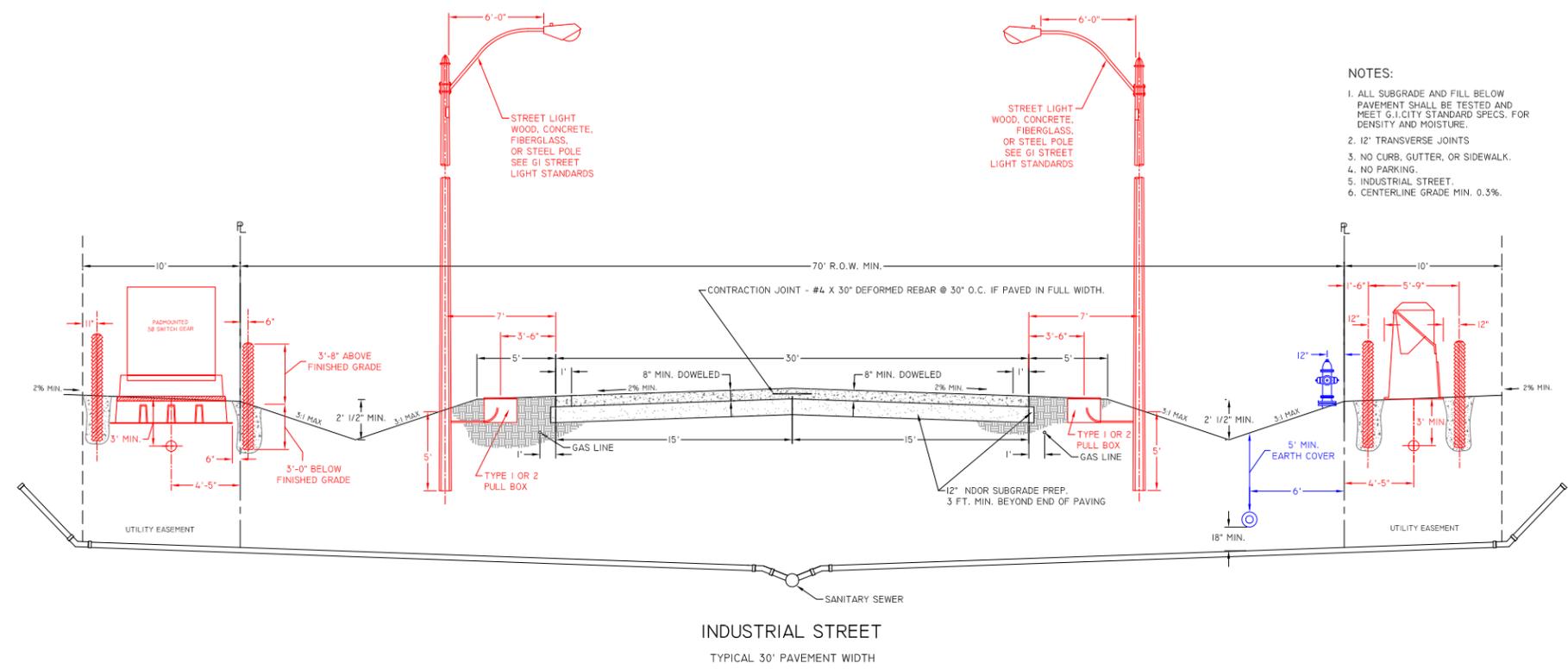
ARTERIAL USE
TYPICAL 65' PAVEMENT WIDTH

REVISIONS	DATE	BY	DESCRIPTION
	12/10/2013	TJY	
	XX/XX/XX	XX/XX/XX	
	XX/XX/XX	XX/XX/XX	
	XX/XX/XX	XX/XX/XX	

COMMERCIAL
PAVEMENT CROSS SECTIONS
GRAND ISLAND, NEBRASKA

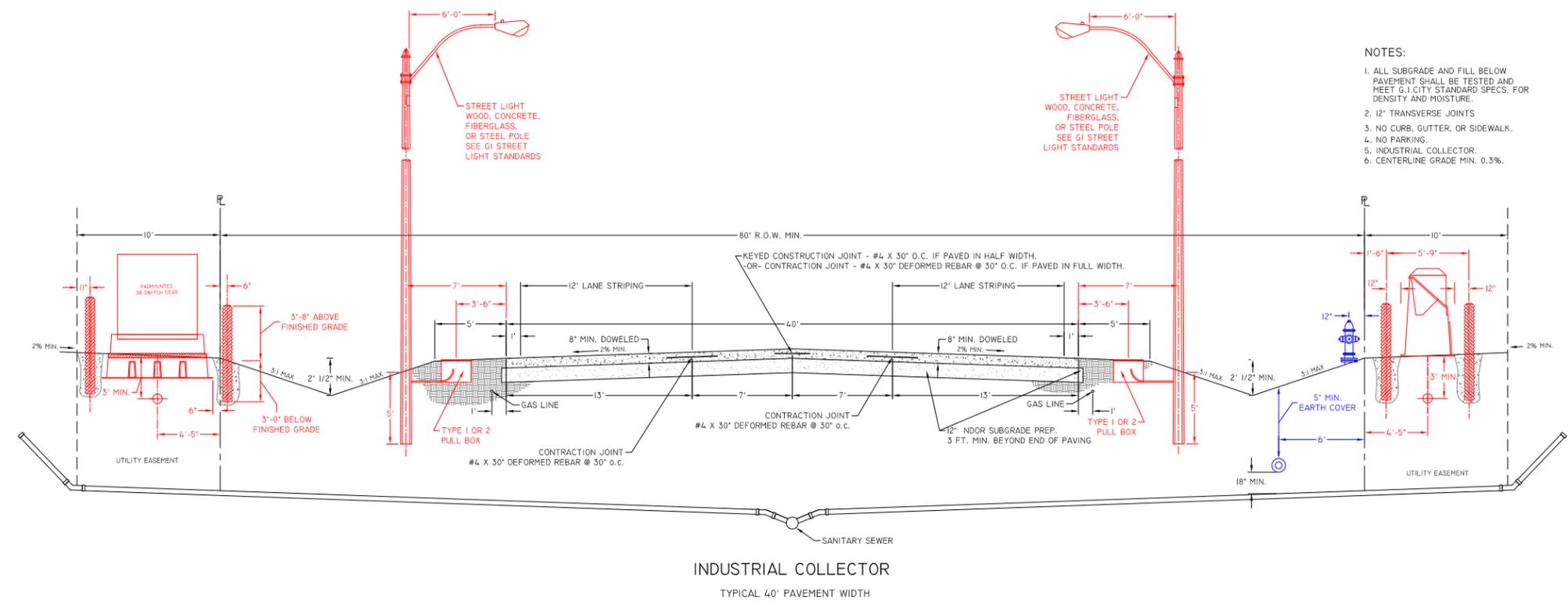
DWG: J:\CAD\DETAILS\TYPICAL STREET SECTIONS\CROSS SECTION-COMMERCIAL.DWG - 37' & 41' & 65' LANDSCAPE

DWG: J:\CAD\DETAILS\TYPICAL STREET SECTIONS\CROSS SECTION-INDUSTRIAL.DWG - 11 X 17 LANDSCAPE



INDUSTRIAL STREET
TYPICAL 30' PAVEMENT WIDTH

- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. NO CURB, GUTTER, OR SIDEWALK.
 4. NO PARKING.
 5. INDUSTRIAL STREET.
 6. CENTERLINE GRADE MIN. 0.3%.



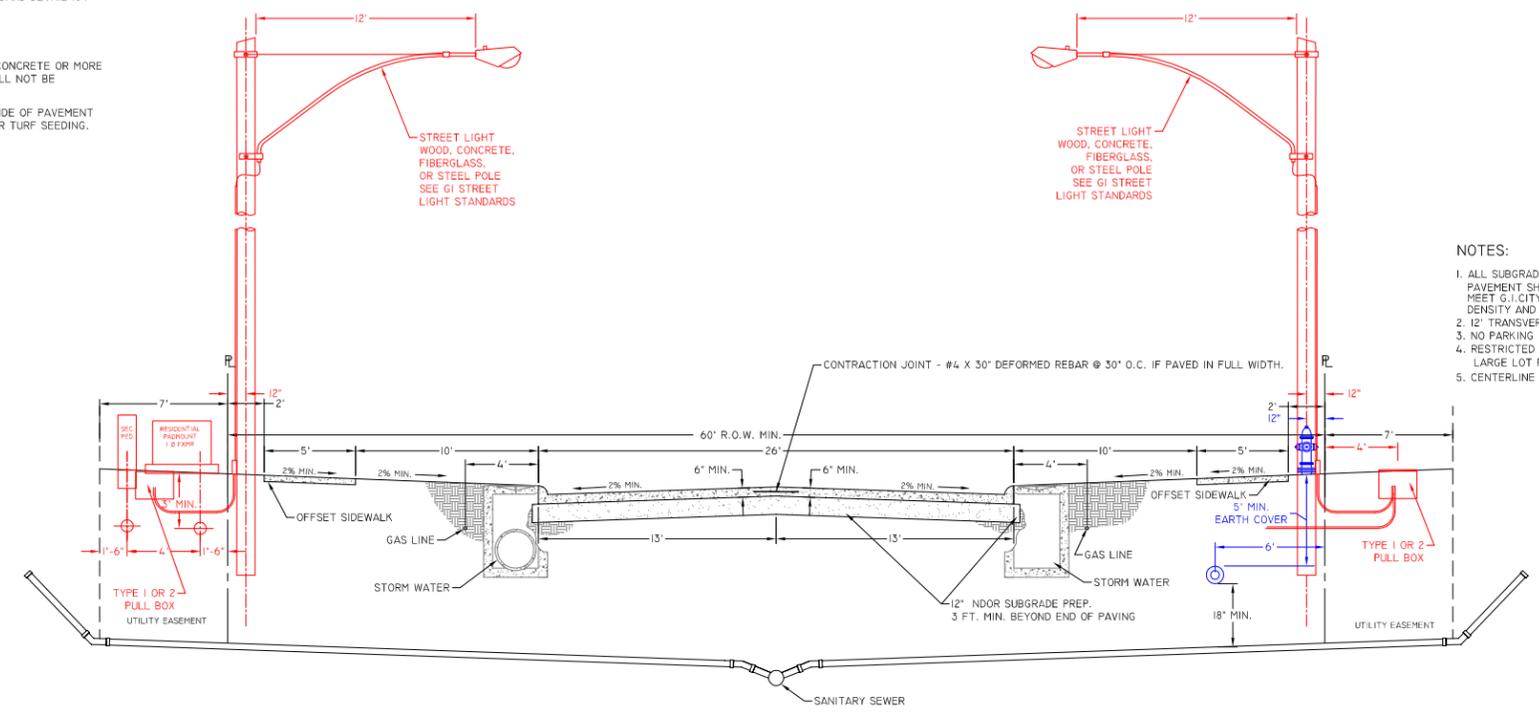
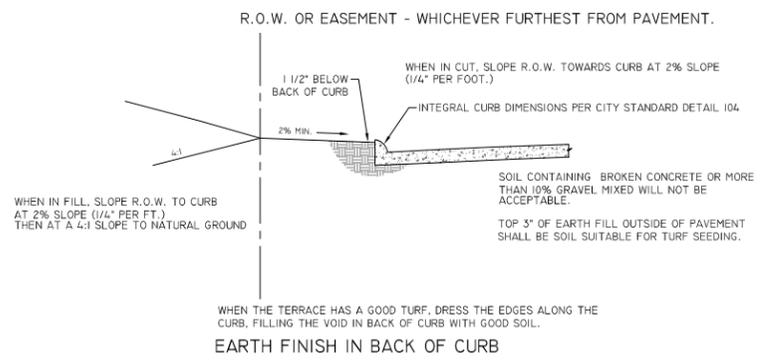
INDUSTRIAL COLLECTOR
TYPICAL 40' PAVEMENT WIDTH

- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. NO CURB, GUTTER, OR SIDEWALK.
 4. NO PARKING.
 5. INDUSTRIAL COLLECTOR.
 6. CENTERLINE GRADE MIN. 0.3%.

REVISIONS	DATE	BY	DESCRIPTION

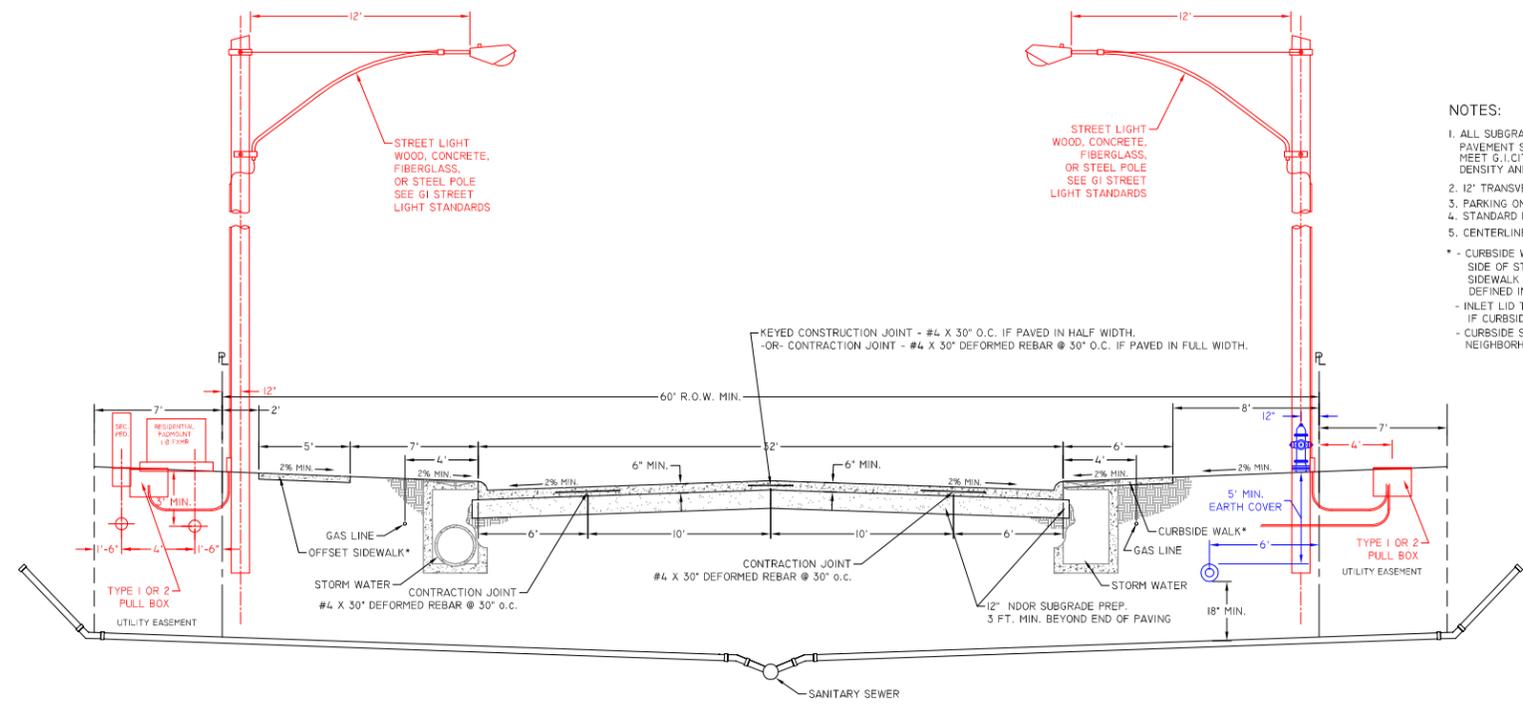
INDUSTRIAL
PAVEMENT CROSS SECTIONS
GRAND ISLAND, NEBRASKA

DWG: J:\CAD\DETAILS\TYPICAL STREET SECTIONS\CROSS SECTION-RESIDENTIAL - FINAL 03-25-2014.DWG - 26' & 32' II X 17 LANDSCAPE



LARGE LOT RESIDENTIAL DEVELOPMENT
TYPICAL 26' PAVEMENT WIDTH

- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. NO PARKING
 4. RESTRICTED TO USE IN LLR - LARGE LOT RESIDENTIAL DEVELOPMENT.
 5. CENTERLINE GRADE MIN. 0.3%.



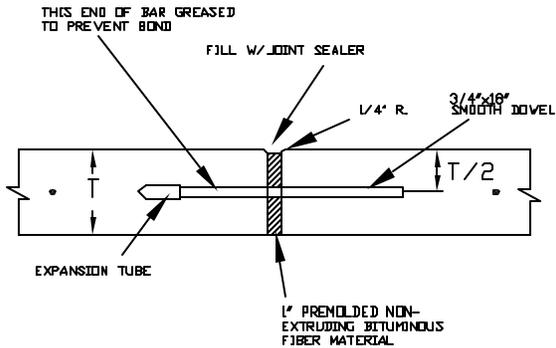
STANDARD RESIDENTIAL STREET
TYPICAL 32' PAVEMENT WIDTH

- NOTES:
1. ALL SUBGRADE AND FILL BELOW PAVEMENT SHALL BE TESTED AND MEET G.I. CITY STANDARD SPECS. FOR DENSITY AND MOISTURE.
 2. 12" TRANSVERSE JOINTS
 3. PARKING ONE SIDE ONLY.
 4. STANDARD RESIDENTIAL USE.
 5. CENTERLINE GRADE MIN. 0.3%.
- * - CURBSIDE WALK LOCATED ON PARKING SIDE OF STREET. SIDEWALK LOCATION TO BE LOCATED AS DEFINED IN THE SUBDIVISION AGREEMENT
- INLET LID TO MATCH SIDEWALK CROSS SLOPE IF CURBSIDE SIDEWALK INSTALLED
- CURBSIDE SIDEWALK ONLY PERMITTED WHERE NEIGHBORHOOD MAILBOXES ARE PROVIDED.

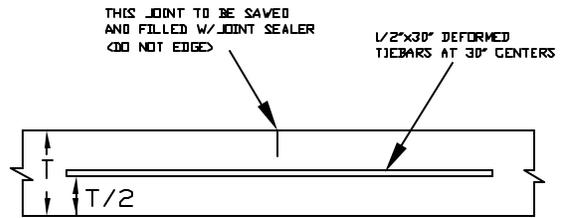
REVISIONS	DATE	BY	DESCRIPTION
	12/10/2013	TJY	
	XX/XX/XX		

RESIDENTIAL

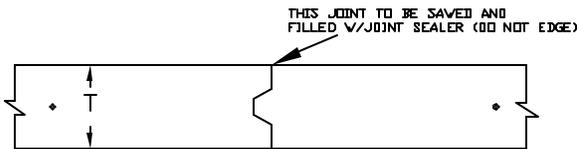
PAVEMENT CROSS SECTIONS
GRAND ISLAND, NEBRASKA



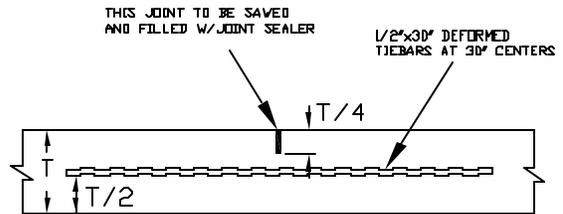
EXPANSION JOINT



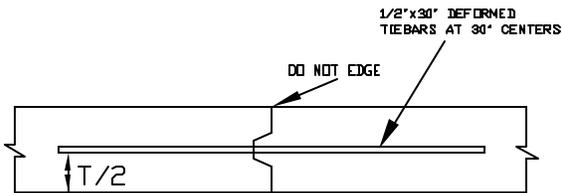
CONSTRUCTION JOINT



**CONSTRUCTION JOINT
(KEYED)**

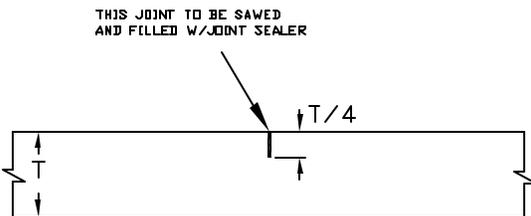


CONTRACTION JOINT

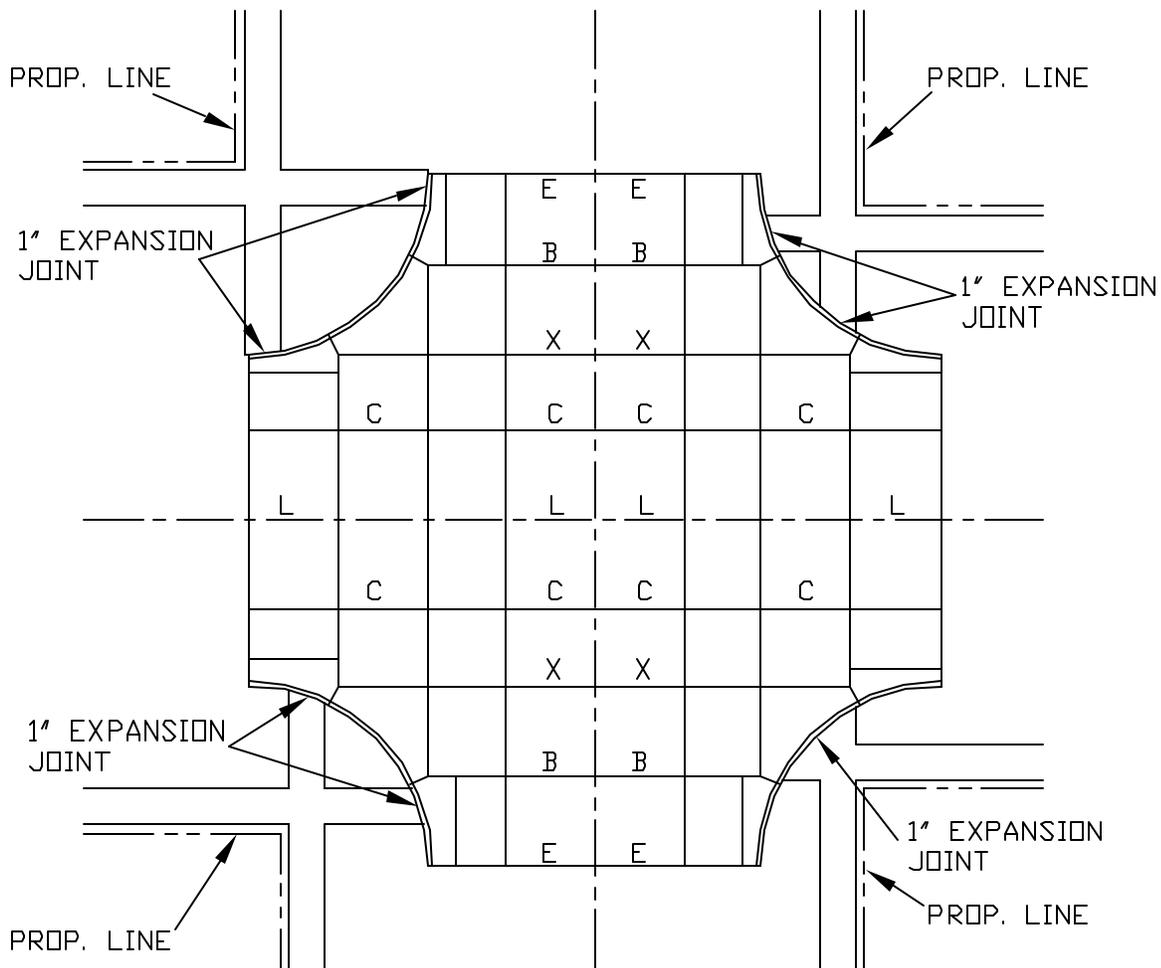


CONSTRUCTION JOINT

(WHEN PLACED FURTHER THAN 5'
FROM ADJACENT JOINT)



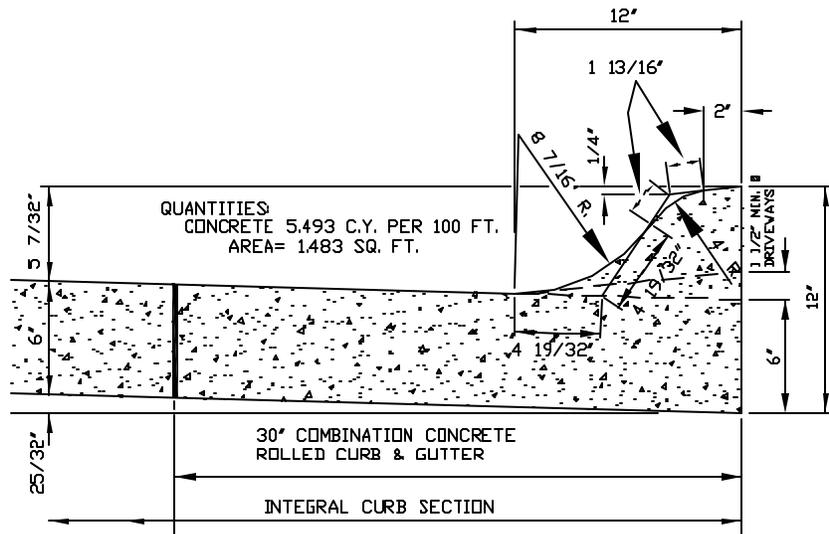
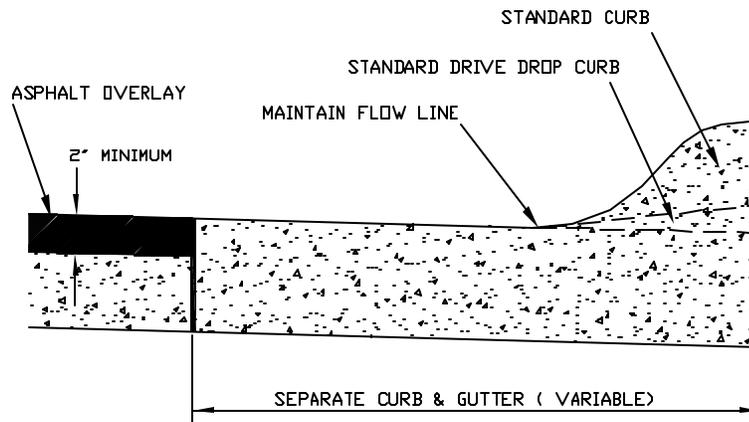
CONTRACTION JOINT



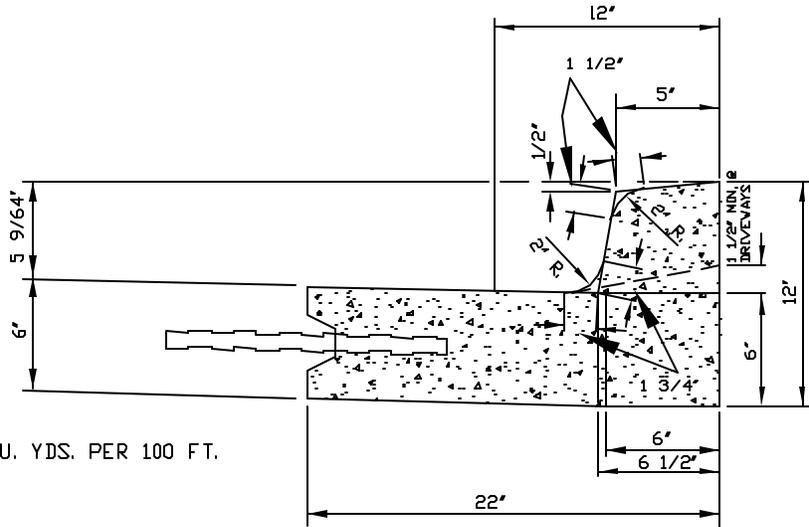
C=CONTRACTION JOINT (LONGITUDINAL)
 L=LONGITUDINAL JOINT
 X=CONSTRUCTION JOINT (KEYED)
 OR
 TRANSVERSE CONTRACTION JOINT
 E=EXPANSION JOINT
 B=TRANSVERSE CONTRACTION JOINT

TYPICAL STREET INTERSECTION W/20' RADIUS

- NOTE: 1. WHEN 51' PAVING IS CONTINUOUS THROUGH AN INTERSECTION, THE INTERSECTION AREA BETWEEN EXPANSION JOINTS SHALL BE ALL 7" P.C.C. PAVEMENT.
2. WHEN 51' PAVING BUTTS AGAINST A CROSS STREET, THE AREA BETWEEN THE EXPANSION JOINT AND THE CROSS STREET SHALL BE ALL 7" P.C.C. PAVEMENT.

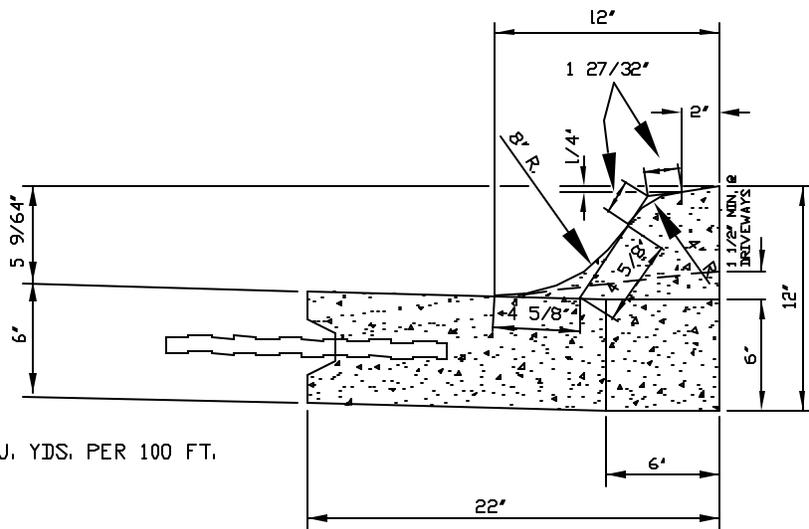


NOTE: DUE TO THE FLAT GRADE IN THE CITY OF GRAND ISLAND, NEBR. EXTREME CARE SHALL BE USED IN FINISH WORK TO ELIMINATE " LOW SPOTS" AND " POCKETS"



QUANTITIES
 CONCRETE 4.284 CU. YDS. PER 100 FT.
 AREA 1.157 SQ. FT.

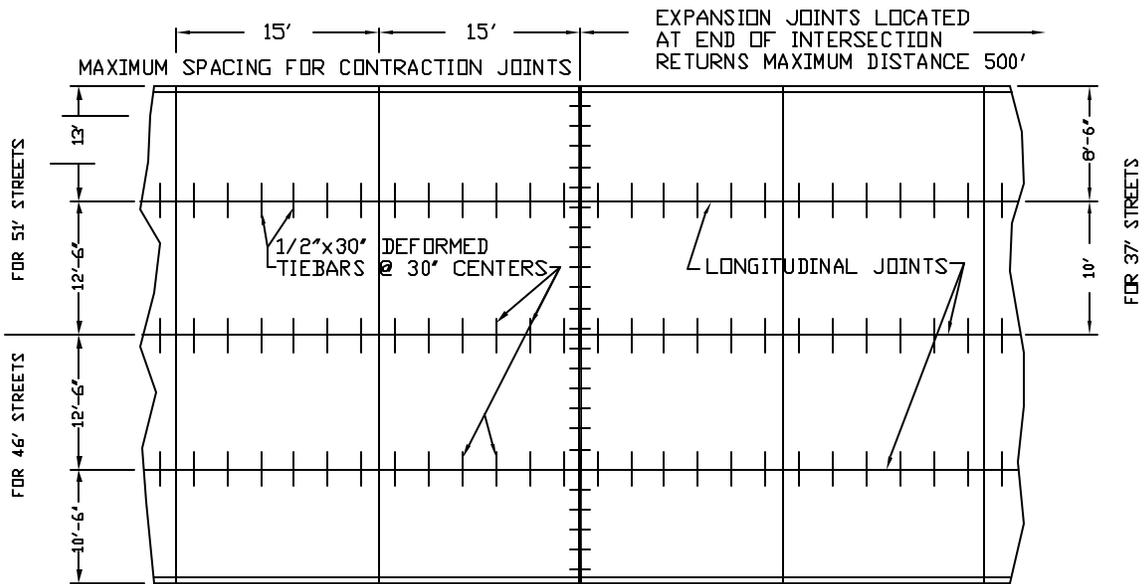
**COMBINATION CONCRETE
 BATTERED CURB AND GUTTER**



QUANTITIES
 CONCRETE 4.303 CU. YDS. PER 100 FT.
 AREA 1.162 SQ. FT.

**COMBINATION CONCRETE
 BATTERED CURB AND GUTTER**

NOTE—
 COMBINATION CONCRETE 22 INCH CURB AND GUTTER SHALL NOT BE USED UNLESS
 SPECIAL PERMISSION IS GRANTED BY THE CITY ENGINEER OR IT IS CALLED FOR ON PLANS.
 DUE TO THE FLAT GRADE IN THE CITY OF GRAND ISLAND, NEBR. EXTREME CARE
 SHALL BE USED IN FINISH WORK TO ELIMINATE 'LOW SPOTS' OR 'POCKETS'.



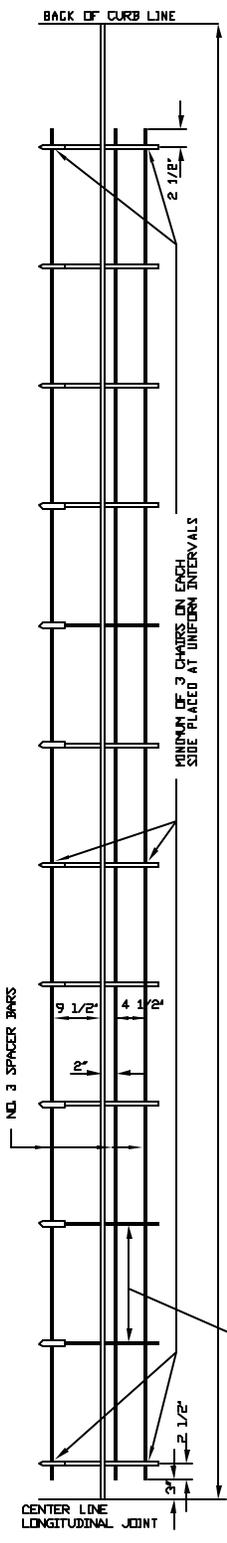
REINFORCING PLAN

CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: JULY, 1970
 DRAWN BY J.W.A.
 APPVD. BY

JOINT
 LOCATION

PLAN
 106

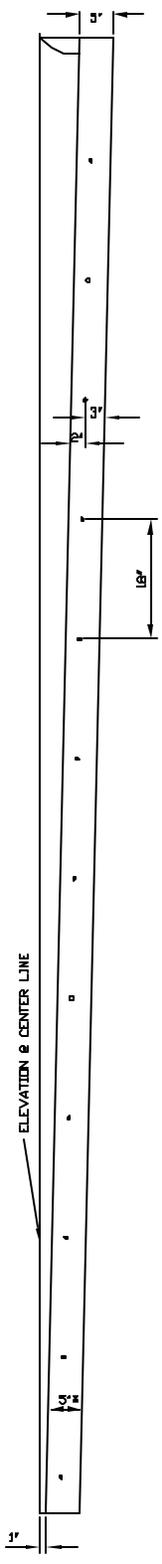


17'-0" FOR 37' STREET
 18'-0" FOR 41' STREET
 21'-0" FOR 45' STREET

(11 SPACES FOR 37' STREET
 12 SPACES FOR 41' STREET
 14 SPACES FOR 45' STREET)

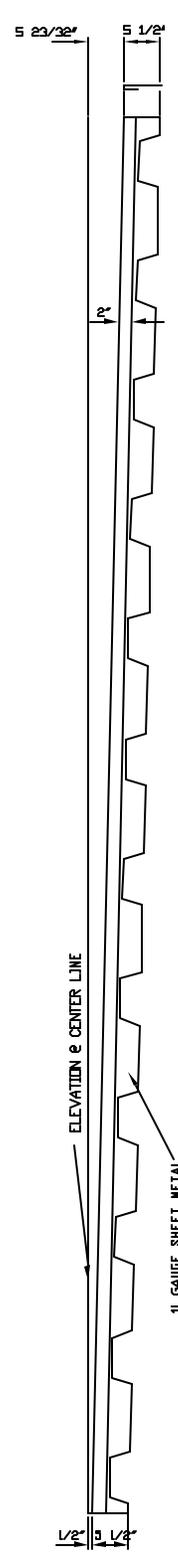
NO. 6-# 18' DEVEL BARS
 SPACED 18" APART

ASSEMBLY PLAN



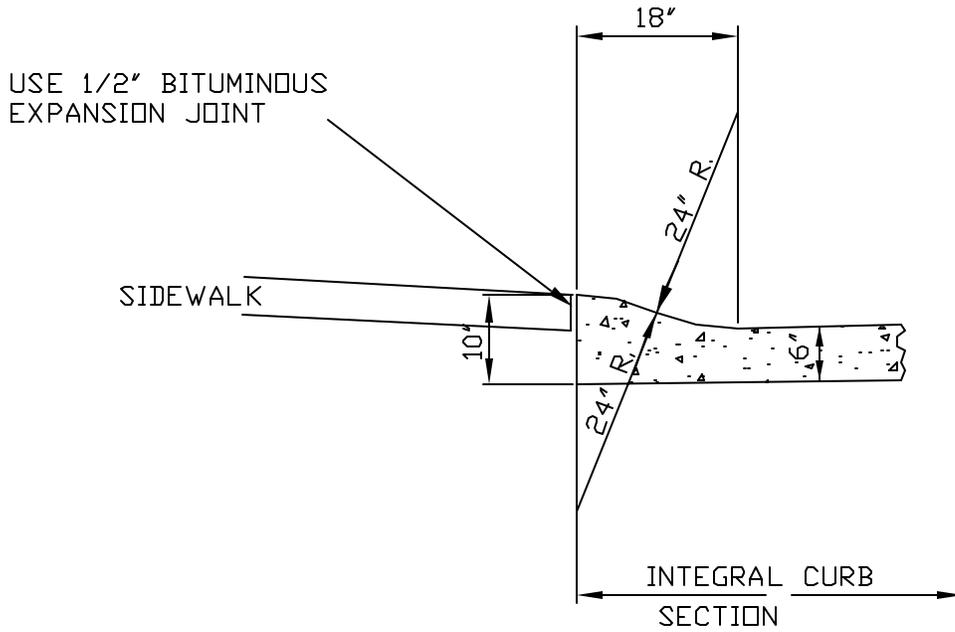
DETAIL FOR CUTTING PREFORMED EXPANSION JOINT FILLER

* DEPTH TO CONFORM TO TYPICAL SECTIONS SHOWN ON PLANS

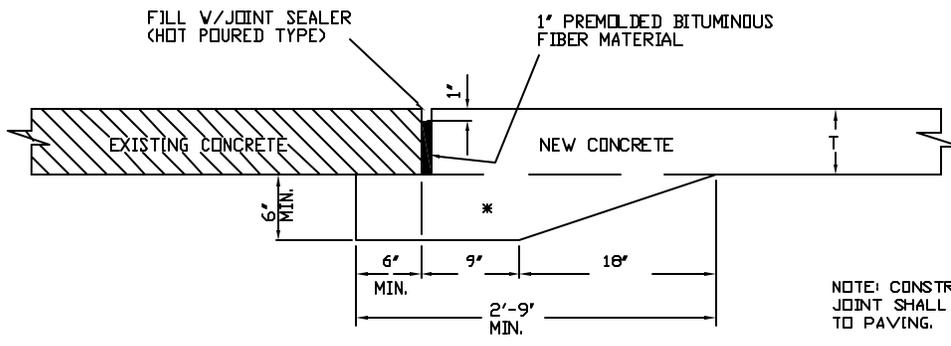


METAL EXPANSION JOINT HOLDER

31 GAUGE SHEET METAL
 ALL EXPANSION JOINTS SHALL
 BE INCIDENTAL TO PAVING



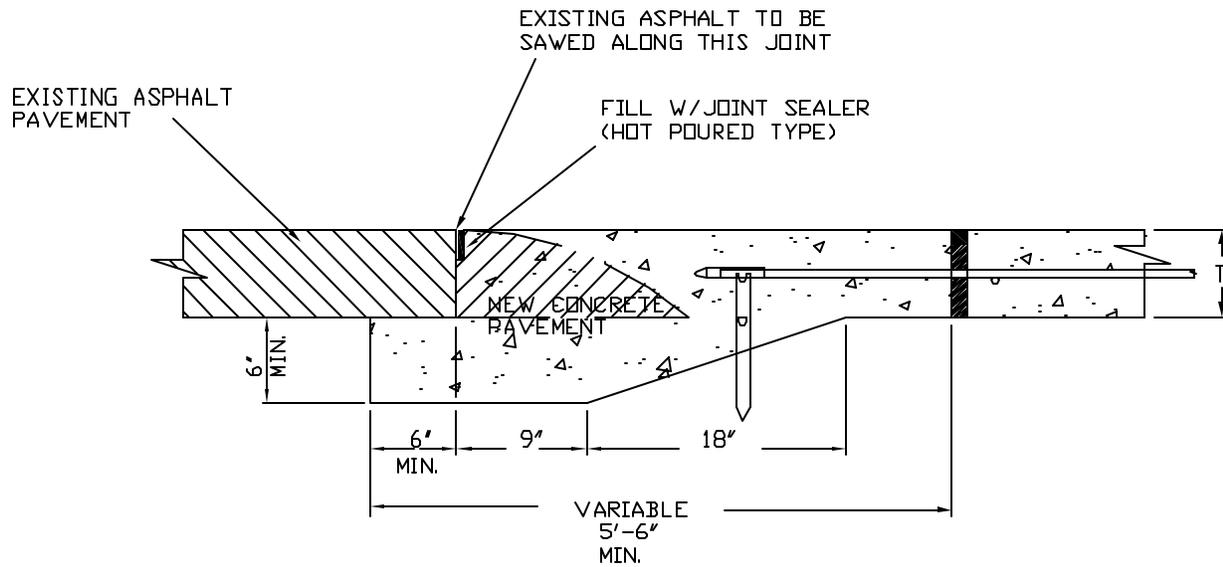
NOTE: DUE TO THE FLAT GRADE IN THE CITY OF GRAND ISLAND, NEBR. EXTREME CARE SHALL BE USED IN FINISH WORK TO ELIMINATE "LOW SPOTS" OR "POCKETS"



NOTE: CONSTRUCTION OF THIS JOINT SHALL BE INCIDENTAL TO PAVING.

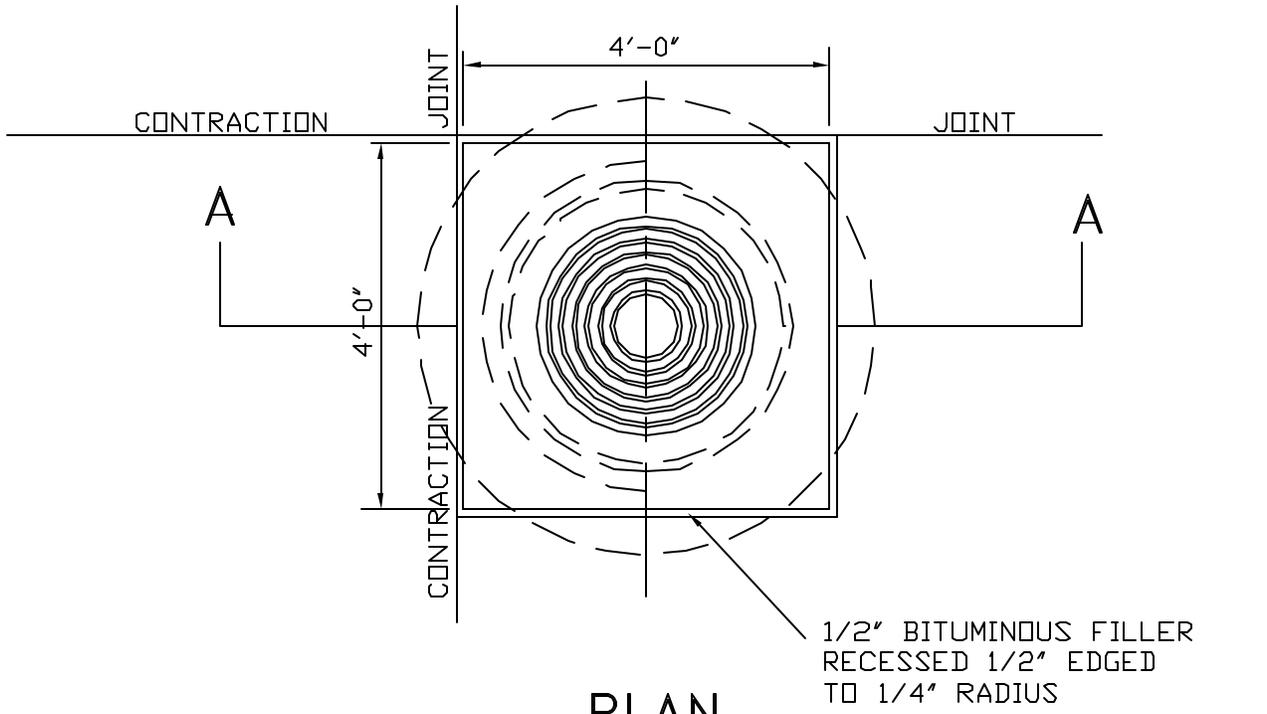
* WHERE DOWEL BARS ARE IN EXISTING CONCRETE EXTRA DEPTH, & UNDERMINING NOT REQUIRED.

JOINT DETAILS AT EXISTING CONCRETE PAVEMENT

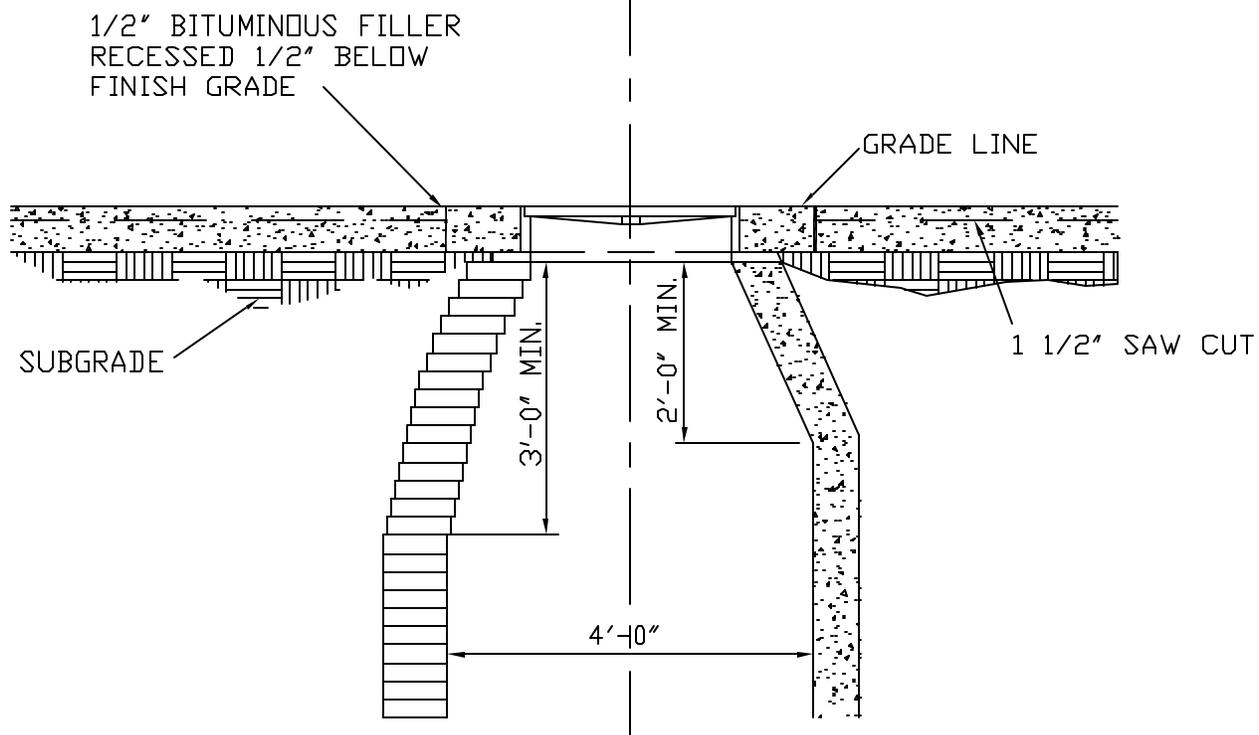


NOTE: THIS JOINT IS TO BE USED WHERE NEW CONCRETE PAVEMENT IS CONNECTED TO EXISTING ASPHALT PAVEMENT.

ALL SAWING AND EXPANSION JOINTS SHALL BE INCIDENTAL TO PAVING.



PLAN



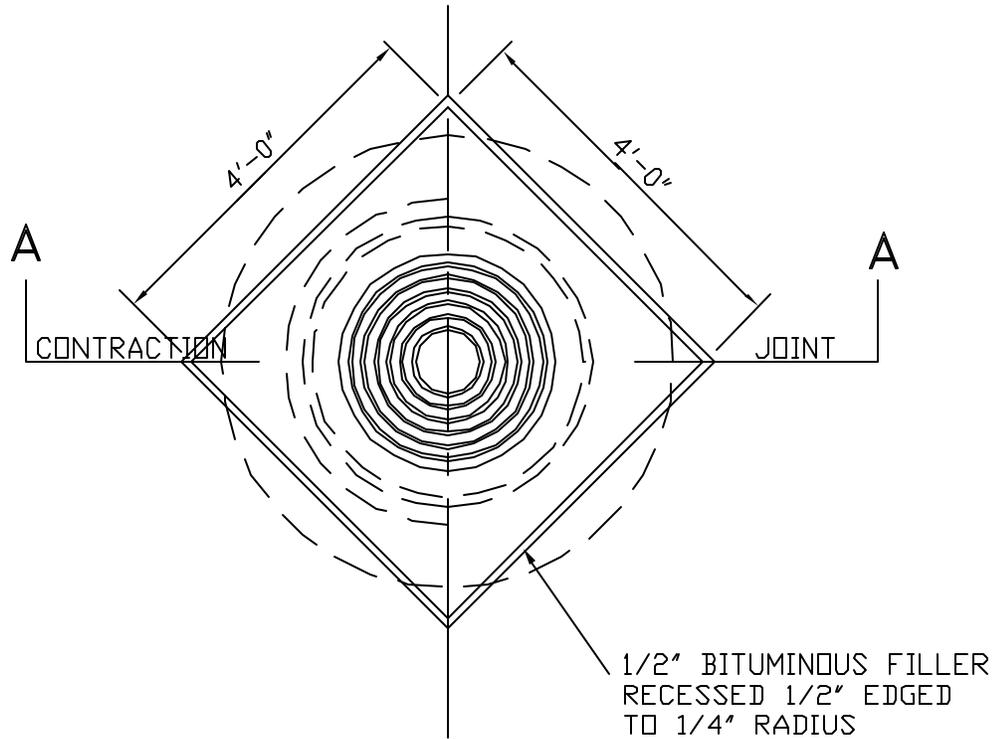
SECTION A-A

CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

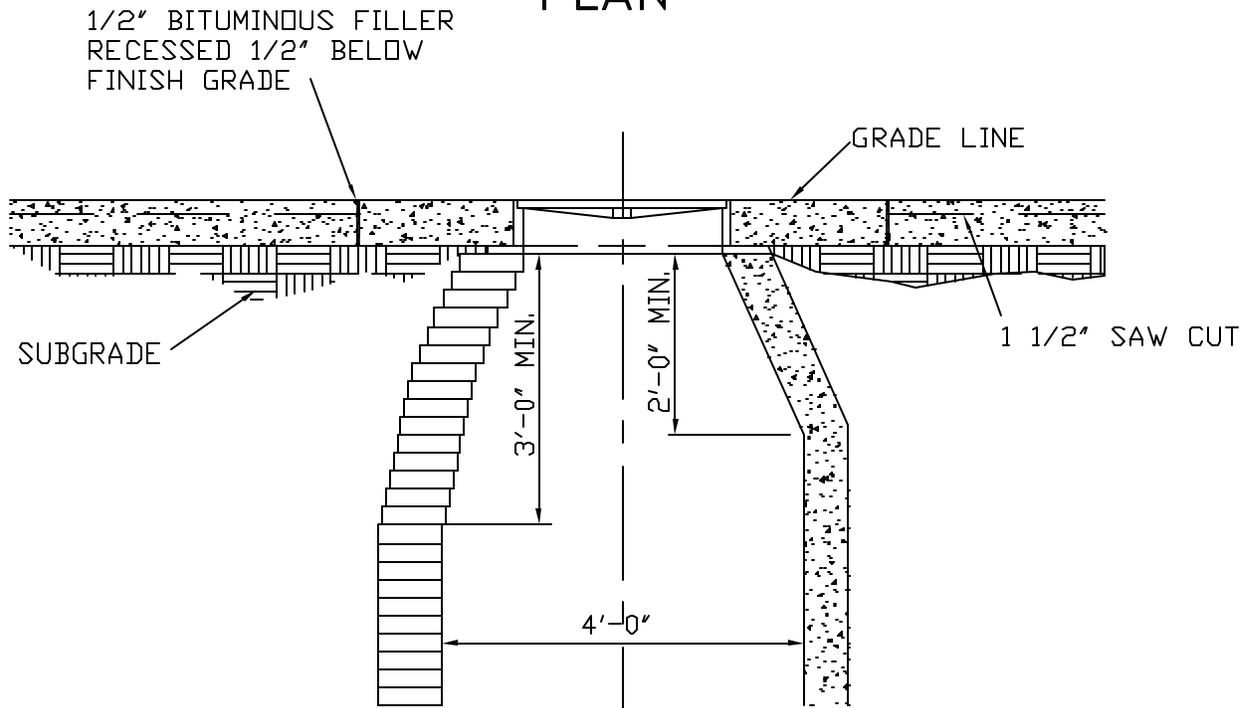
DATE: AUG. 1978
DRAWN BY K.E.S.
APPVD. BY A.E.R.

STANDARD
MANHOLE
EXPANSION

PLAN
114
SHEET
10F2



PLAN



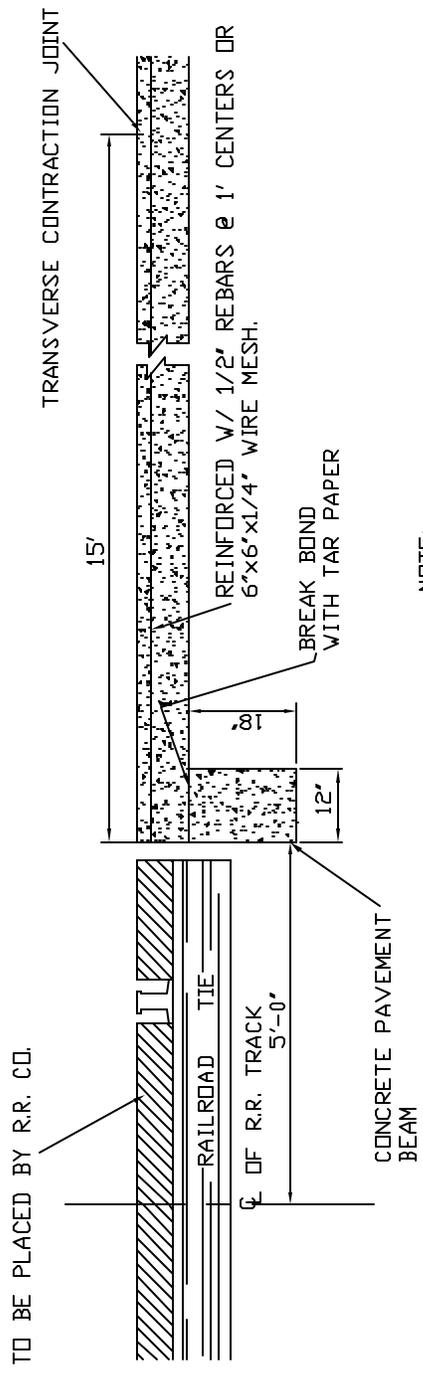
SECTION A-A

CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: AUG. 1978
 DRAWN BY J.R.B.
 APPVD. BY A.E.R.

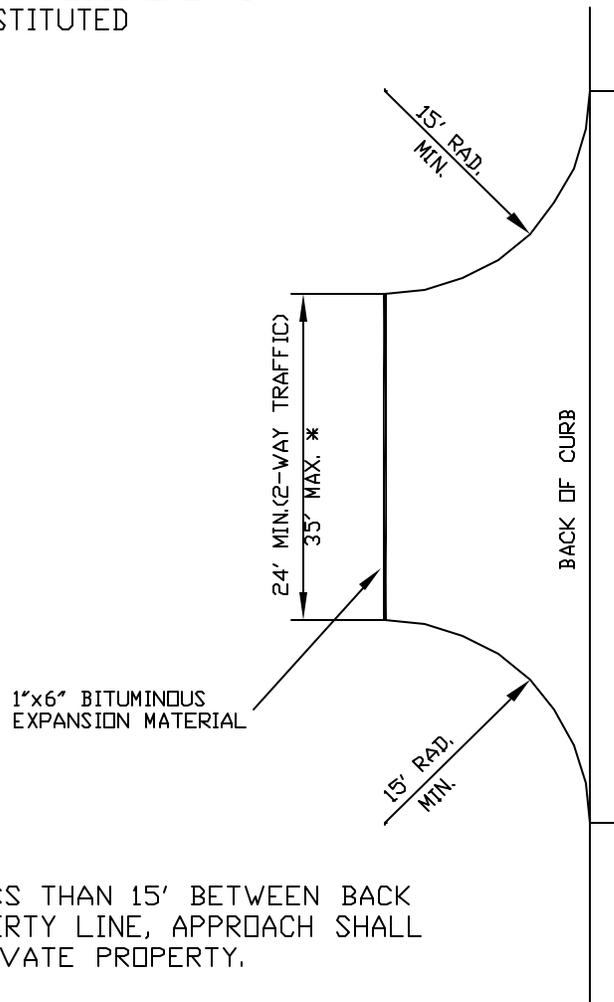
STANDARD
 MANHOLE
 EXPANSION

PLAN
 114
 SHEET
 2 OF 2



- NOTE:
1. THE 1/2" REBARS OR WIRE MESH SHALL BE INCIDENTAL TO PAVING.
 2. PAYMENT FOR THE CONCRETE PAVEMENT BEAM SHALL BE PER LINEAR FOOT.

MINIMUM COMMERCIAL DRIVEWAY REQUIREMENTS
 ALTERNATE NO.2 MAY BE SUBSTITUTED



NOTES:

- 1 IF THERE IS LESS THAN 15' BETWEEN BACK OF CURB & PROPERTY LINE, APPROACH SHALL EXTEND ONTO PRIVATE PROPERTY.
- 2 PORTLAND CEMENT CONCRETE TO BE 47B MOD. OR 6 1/2 SACK SAND-GRAVEL. MINIMUM THICKNESS TO BE 6 INCHES
- 3 CURBS CAN BE TAPERED FROM FULL CURB TO NO CURB IN THE RADIUS LENGTH OR BE MAINTAINED AS FULL CURB WHICHEVER FITS THE DESIGN ON PRIVATE PROPERTY

* WIDER OPENING MAY BE CONSTRUCTED IF APPROVED BY DIRECTOR OF PUBLIC WORKS

ALTERNATE NO.1

REVISED 4/8/96

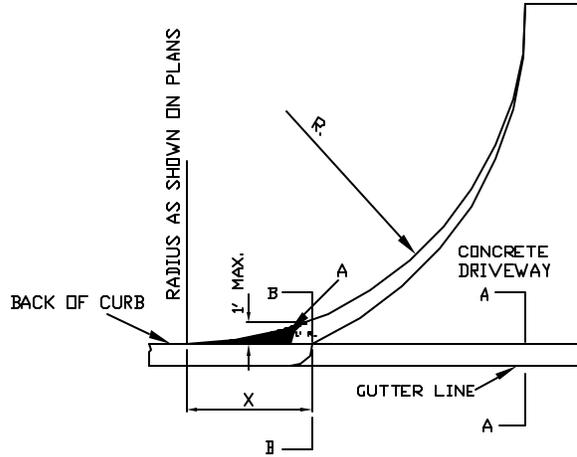
CITY OF
GRAND ISLAND
 PUBLIC WORKS DEPARTMENT

DATE: 2/7/89
 DRAWN BY P.E.S.
 APPVD. BY W.L.B.

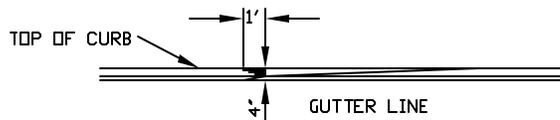
STANDARD FOR
 COMMERCIAL
 DRIVEWAY
 CONSTRUCTION

PLAN
 116
 1 of 3

R	X	A
5	3.32	0.49
6	3.61	0.57
7	3.87	0.64
8	4.12	0.70
9	4.36	0.79
10	4.58	0.84
11	4.80	0.85
12	5.00	0.98
13	5.20	1.07
14	5.39	1.14
15	5.57	1.22
16	5.75	1.27
17	5.92	1.29
18	6.08	1.31
19	6.25	1.33
20	6.40	1.40



PLAN

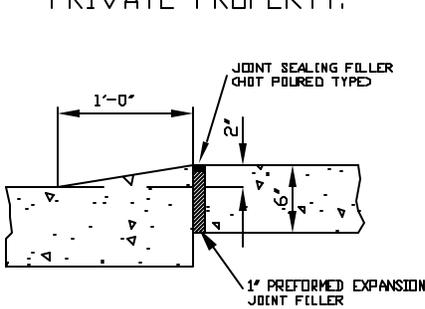


ELEVATION

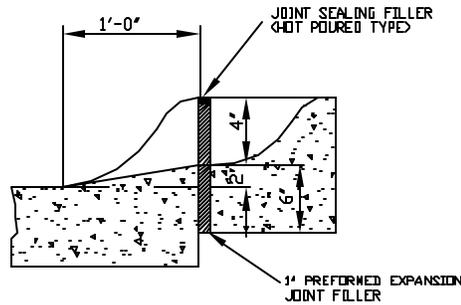
EXCLUDE AREA "A" WHEN COMPUTING SQ. YDS. OF CONCRETE DRIVEWAY BACK OF CURB.

NOTES:

1. IF THERE IS LESS THAN 15' BETWEEN BACK OF CURB & PROPERTY LINE, APPROACH SHALL EXTEND ONTO PRIVATE PROPERTY.
2. PORTLAND CEMENT CONCRETE TO BE 47B MOD, OR 6 1/2 SACK SAND-GRAVEL MINIMUM THICKNESS TO BE 6 INCHES.
3. CURBS CAN BE TAPERED FROM FULL CURB TO NO CURB IN THE RADIUS LENGTH OR BE MAINTAINED AS FULL CURB WHICHEVER FITS DESIGN ON PRIVATE PROPERTY.



SECTION A-A



SECTION B-B

MINIMUM COMMERCIAL DRIVEWAY REQUIREMENTS.
ALTERNATE NO. 1 MAY BE SUBSTITUTED.

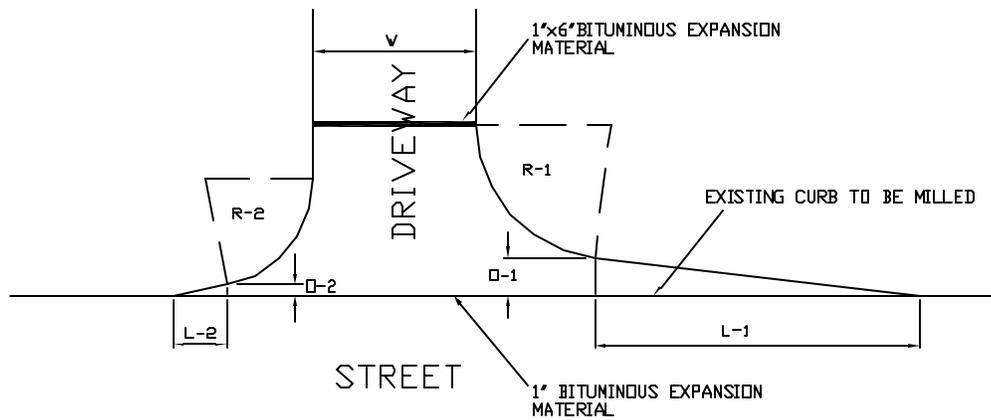
ALTERNATE NO. 2

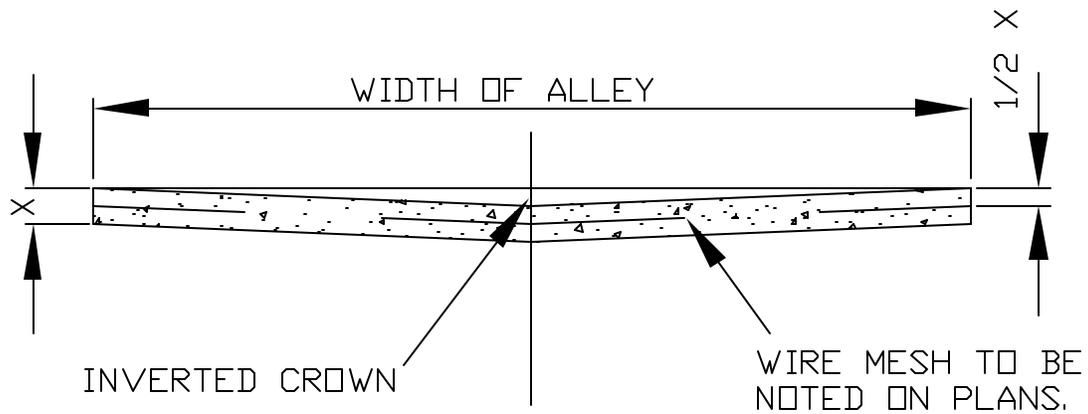
MINIMUM DIMENSION (FEET)

STREET CLASSIFICATION	DRIVE APPROACH				DRIVE DEPARTURE			
	W	R-1	L-1	D-1	W	R-2	L-2	D-2
STATE HIGHWAY	33	20	90	7	33	20	10	2
	40	20	90	7	40	20	10	2
CITY ARTERIAL	30	25	60	7	30	20	10	2
	35	20	60	7	35	15	10	2

NOTES:

1. DRIVE APPROACH DATA MAY BE USED FOR DRIVE DEPARTURE ALSO TO MAKE IMPROVEMENT SYMMETRICAL IF DESIRED.
2. PORTLAND CEMENT CONCRETE TO BE 47B MODIFIED OR 6 1/2 SACK SAND-GRAVEL. MINIMUM THICKNESS TO BE 6 INCH.
3. CURB CAN BE TAPERED FROM FULL CURB TO NO CURB IN THE RADIUS LENGTH OR BE MAINTAINED AS FULL CURB WHICHEVER FITS THE DESIGN ON PRIVATE PROPERTY.

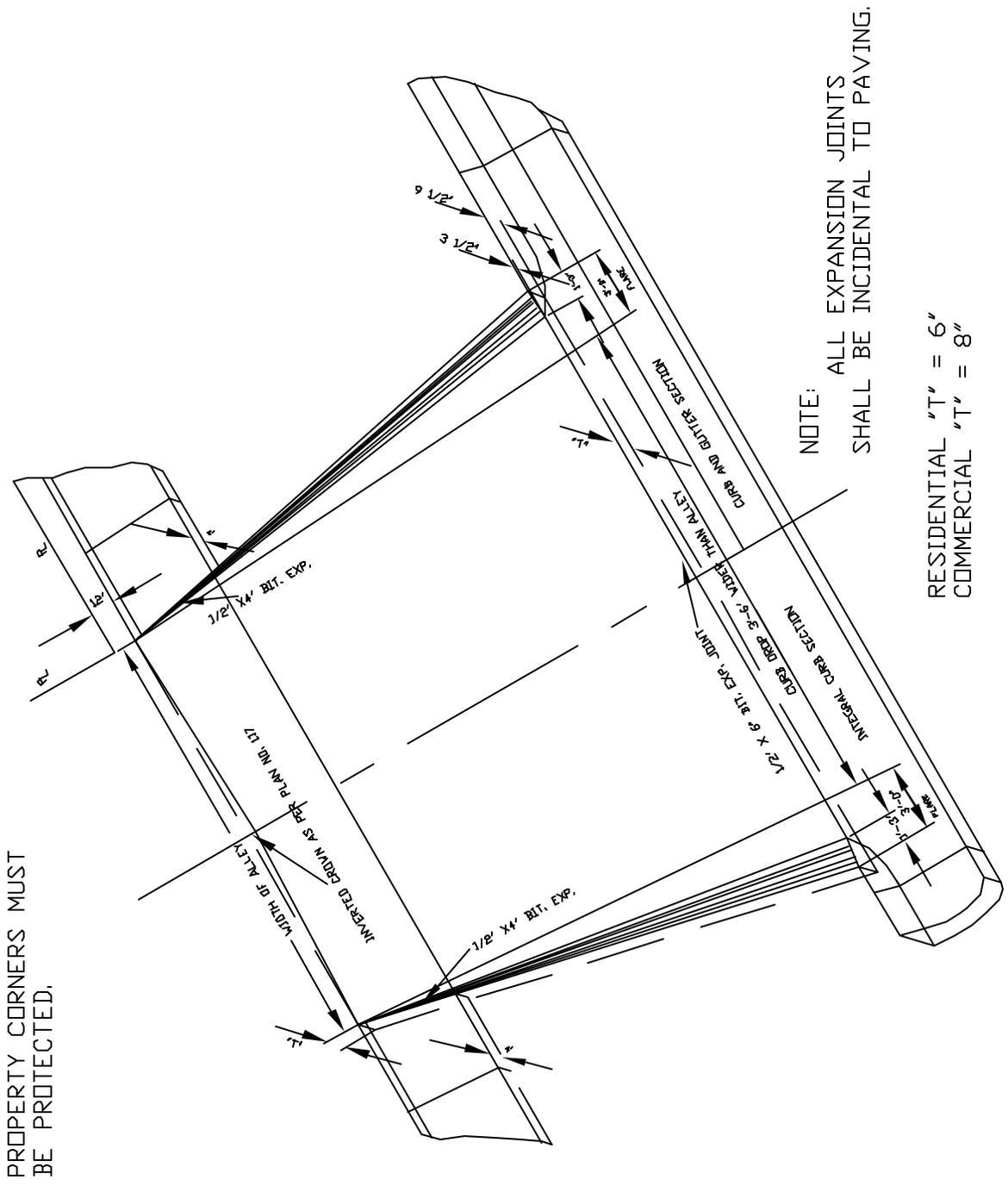




TYPICAL ALLEY SECTION

NOTES:

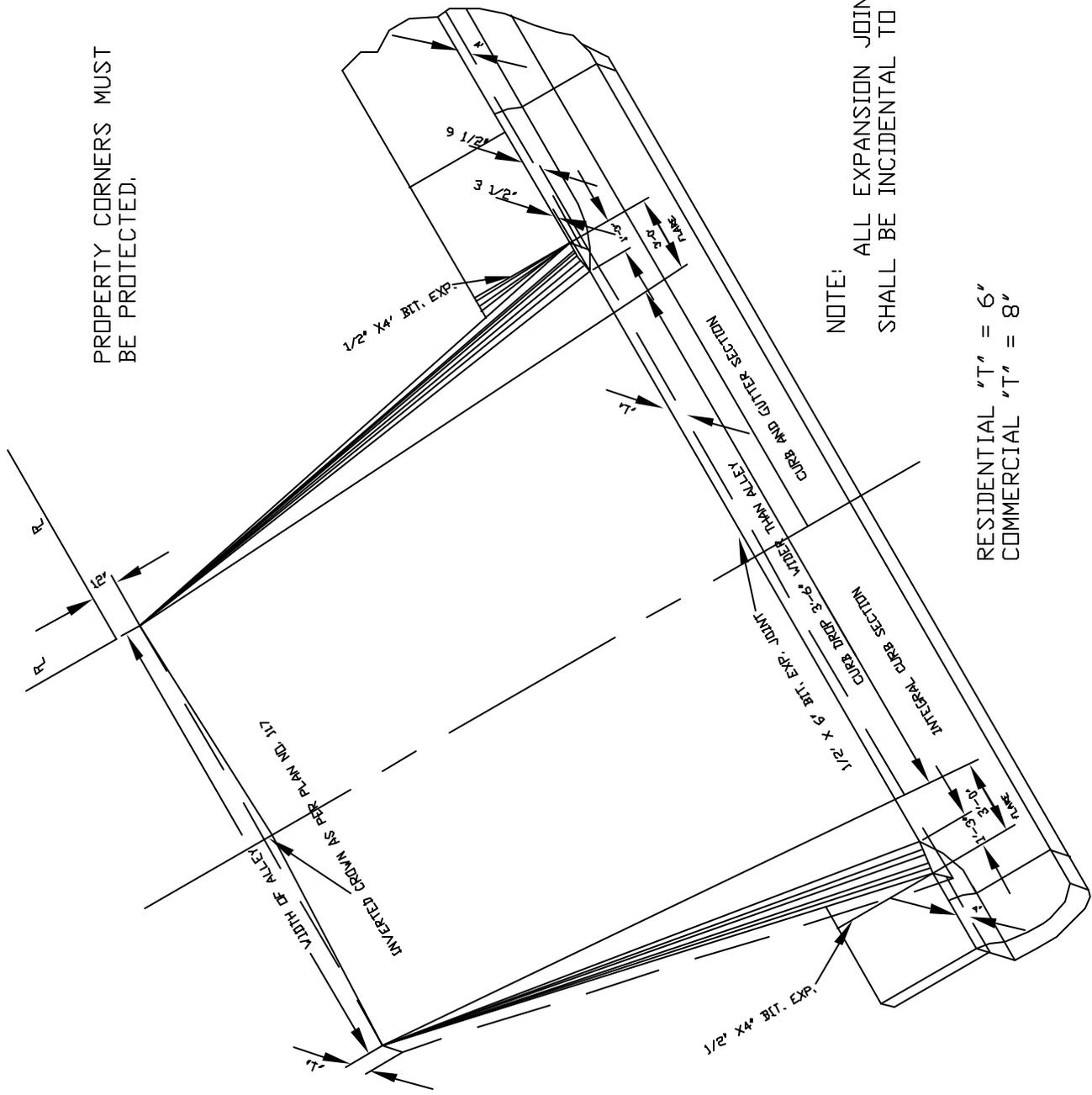
1. X= THICKNESS OF PAVEMENT.
2. COMMERCIAL AREA PAVEMENT 8" CONCRETE.
3. RESIDENTIAL AREA PAVEMENT 6" CONCRETE.
4. REINFORCING AND CROWN TO BE NOTED ON PLANS.
5. 16' ALLEY PAVEMENT 4" OR 0.33' INVERTED CROWN.
6. 12' ALLEY PAVEMENT 3" OR 0.25' INVERTED CROWN.



NOTE: ALL EXPANSION JOINTS SHALL BE INCIDENTAL TO PAVING.

RESIDENTIAL "T" = 6"
COMMERCIAL "T" = 8"

PROPERTY CORNERS MUST
BE PROTECTED.



NOTE:
ALL EXPANSION JOINTS
SHALL BE INCIDENTAL TO PAVING

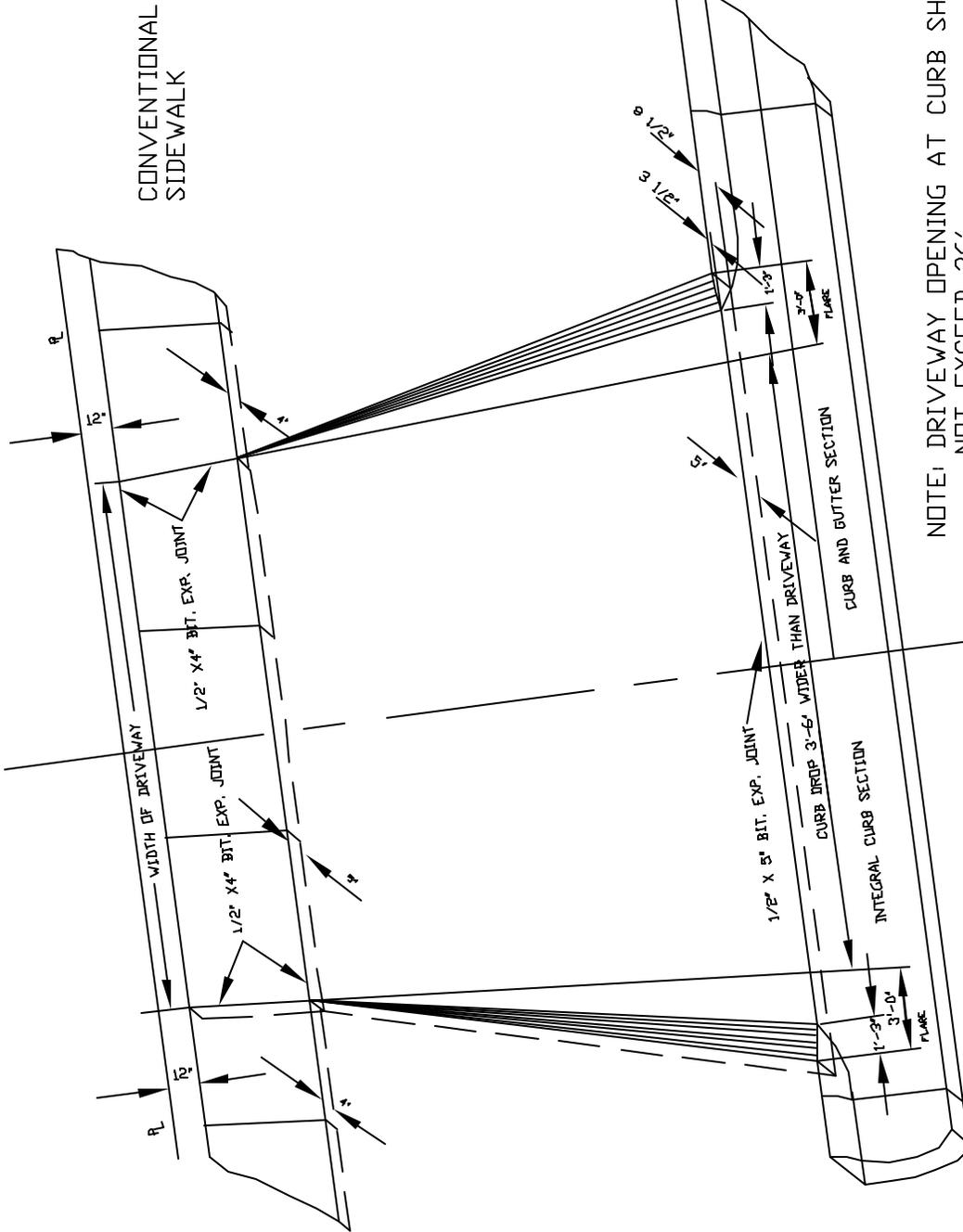
RESIDENTIAL 'T' = 6"
COMMERCIAL 'T' = 8"

CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: DEC. 1966
DRAWN BY K.G.N.
APPVD. BY

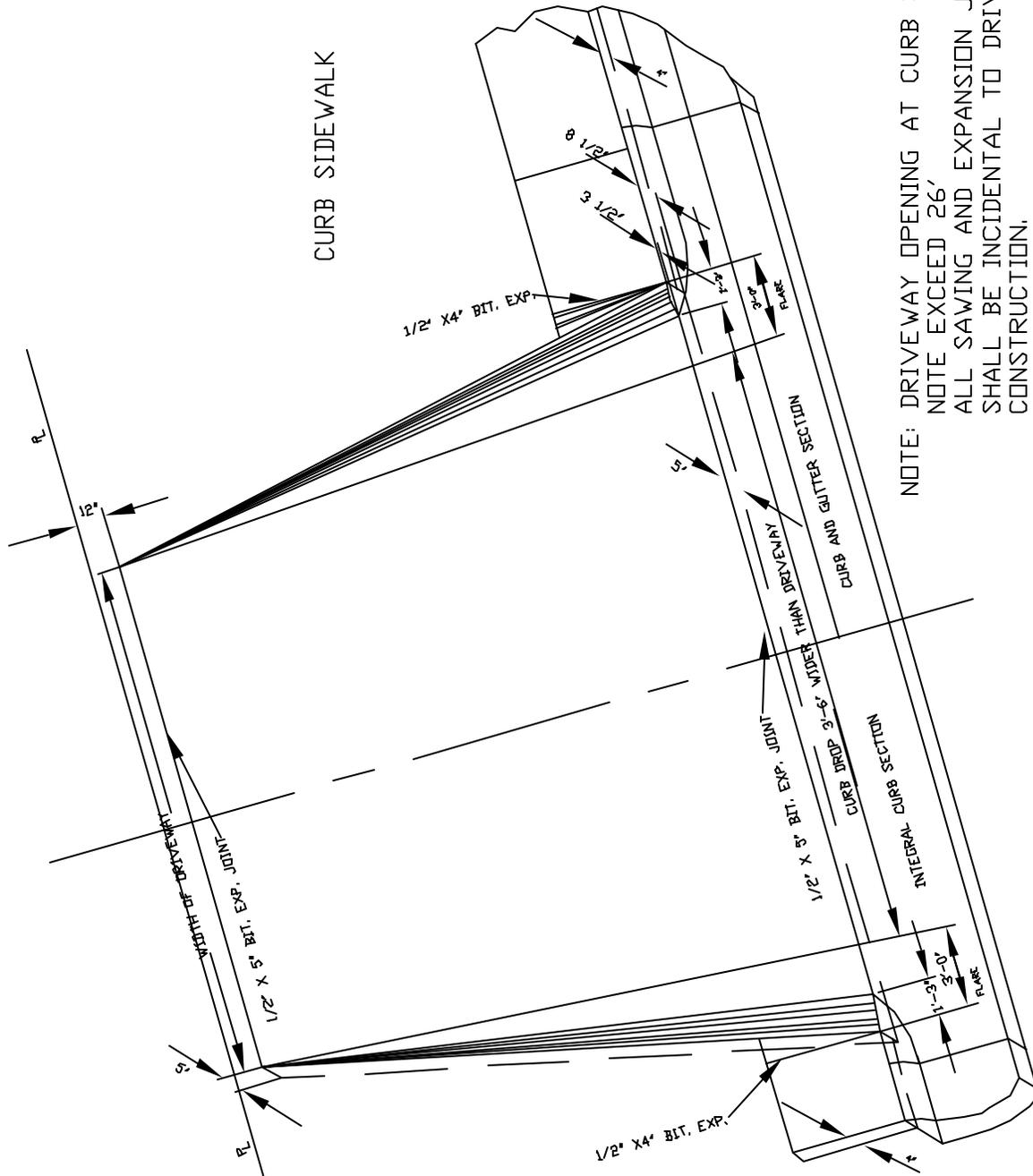
STANDARD
ALLEY
RETURN

PLAN
119



NOTE: DRIVEWAY OPENING AT CURB SHALL NOT EXCEED 26'. ALL SAWING AND EXPANSION JOINTS SHALL BE INCIDENTAL TO DRIVEWAY CONSTRUCTION. THE MIN. CEMENT CONTENT SHALL BE 6 1/2 SACKS PER CU. YD. OF CONC.

ALL CURB SHALL BE MILLED (NO SAWING OR REMOVAL)



CURB SIDEWALK

NOTE: DRIVEWAY OPENING AT CURB SHALL
 NOTE EXCEED 26'
 ALL SAWING AND EXPANSION JOINTS
 SHALL BE INCIDENTAL TO DRIVEWAY
 CONSTRUCTION.
 THE MIN. CEMENT CONTENT SHALL
 BE 6 1/2 SACKS CEMENT PER CU. YD.
 OF CONCRETE.

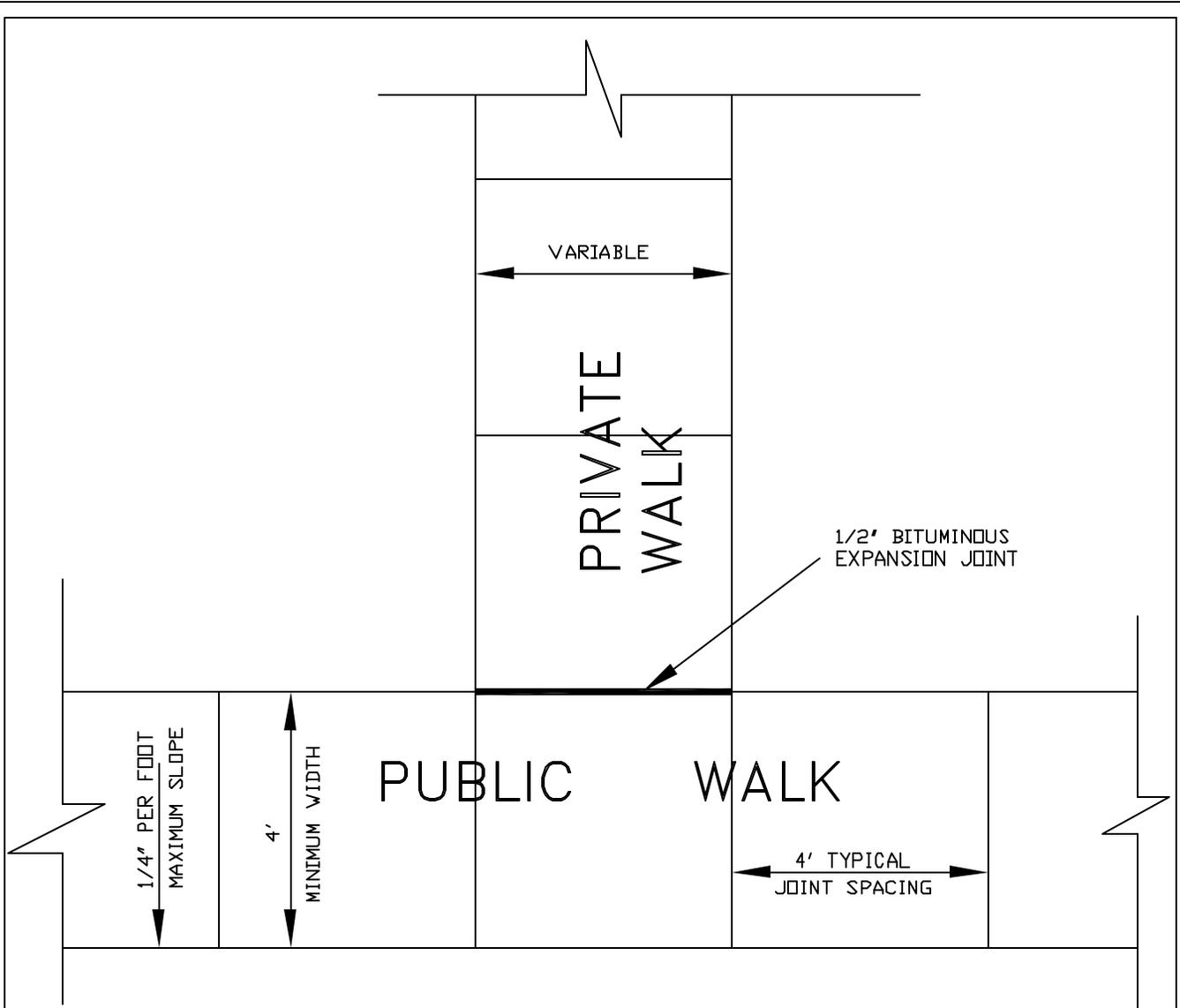
ALL CURB SHALL BE MILLED (NO SAWING
 OR REMOVAL)

CITY OF
GRAND ISLAND
 PUBLIC WORKS DEPARTMENT

DATE: JAN. 1967
 DRAWN BY K.G.N.
 APPVD. BY

DRIVEWAY
 OPENING

PLAN
 120-A



NOTE: ALL EXPANSION JOINTS SHALL BE INCIDENTAL TO SIDEWALK CONSTRUCTION.

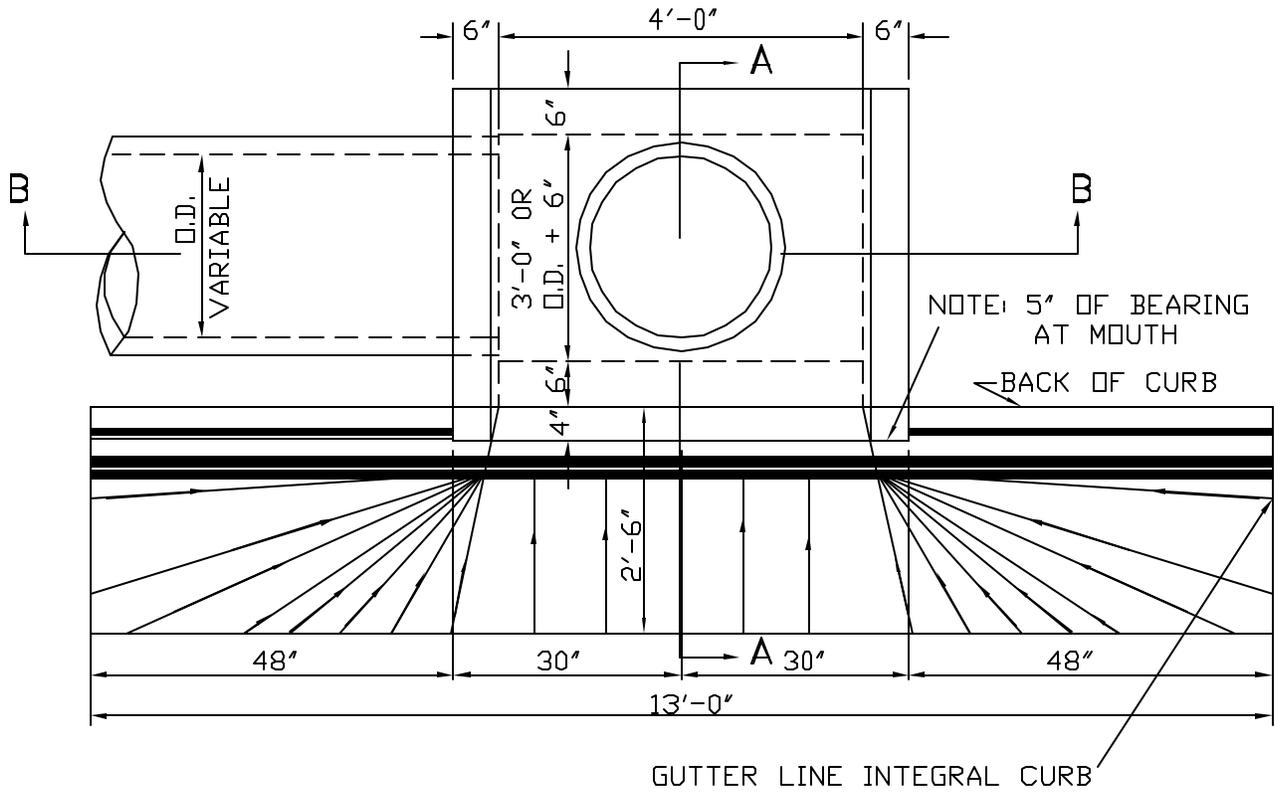
REVISED 8/6/02

CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: FEB. 1964
 DRAWN BY J.V.N.
 APPVD. BY

**CONVENTIONAL
 SIDEWALK**

**PLAN
 123**



CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

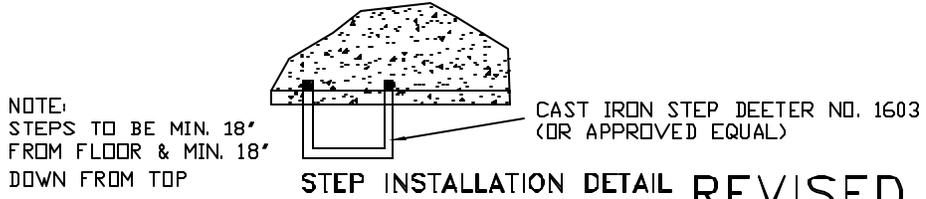
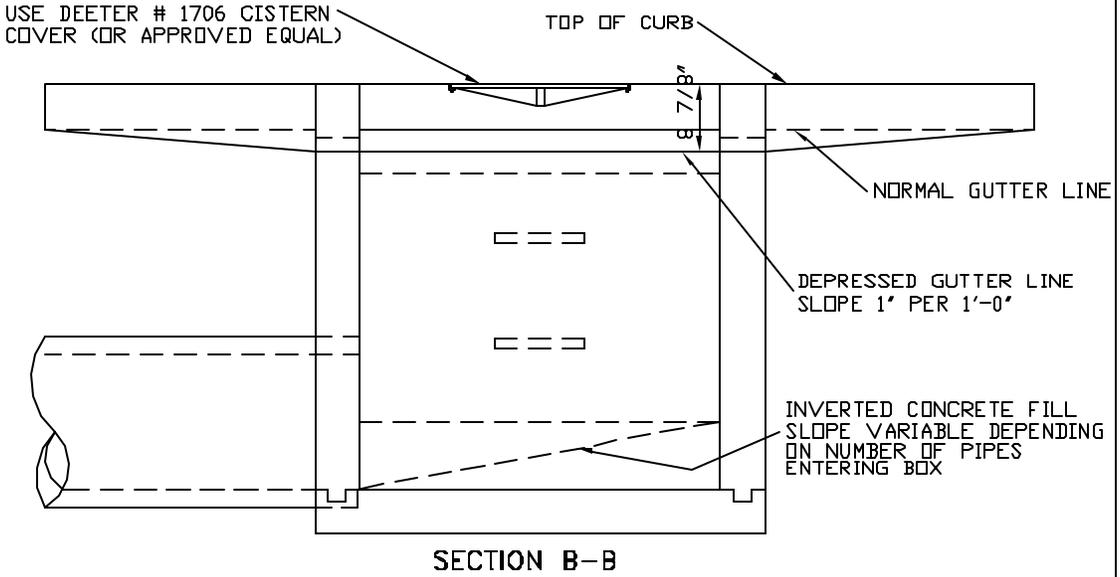
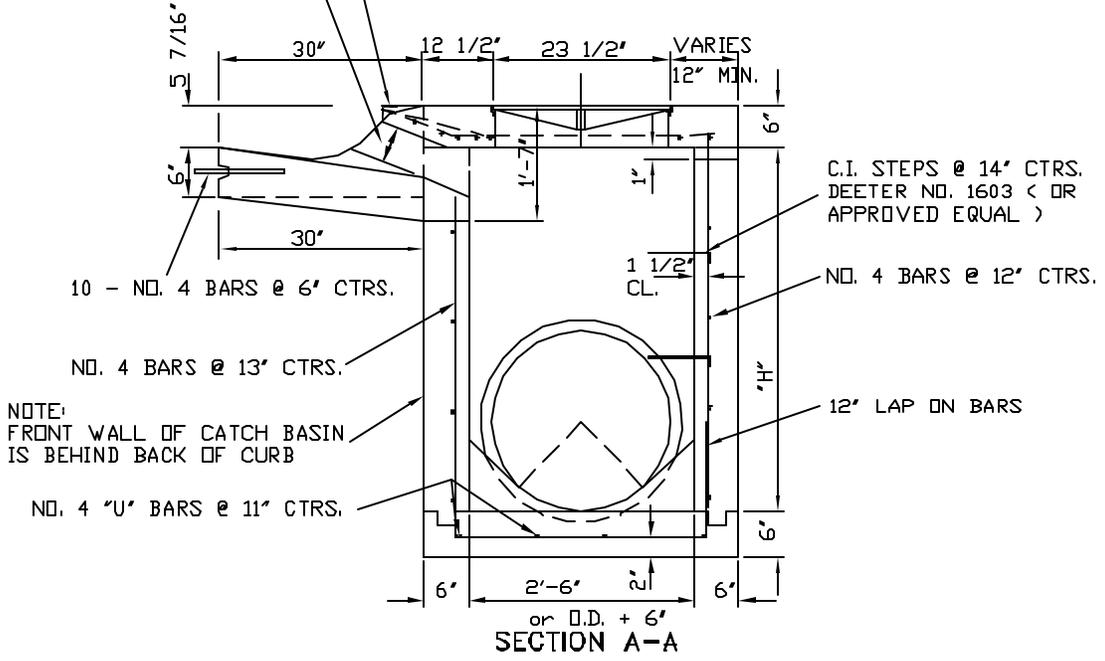
DATE: JAN. 1976
 DRAWN BY L.D.C.
 APPVD. BY

**STANDARD
 TYPE "D" MODIFIED
 INLET**

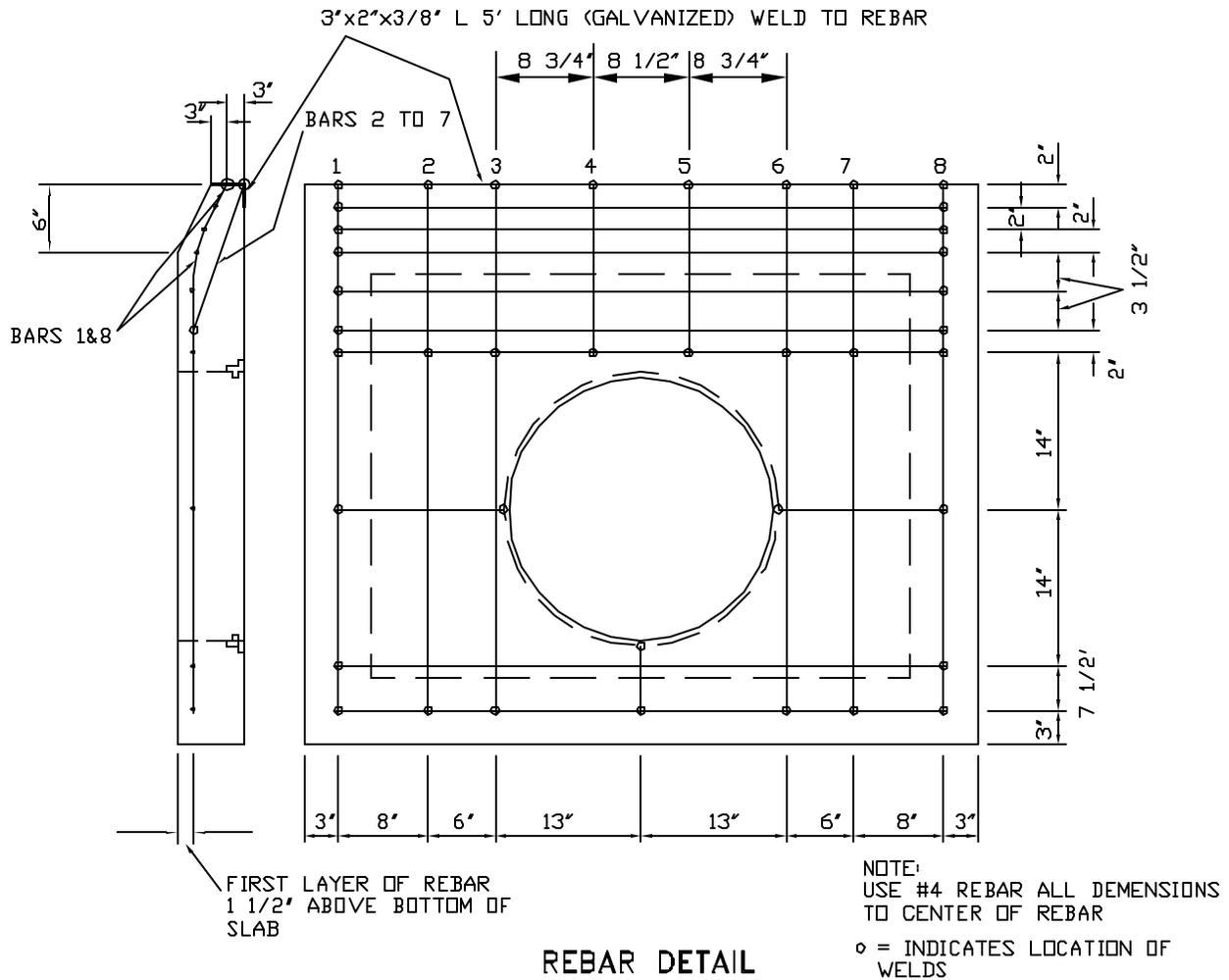
**PLAN
 126-A
 10F4**

GUTTER OPENING 5' +- 1/4'

3"x2"x3/8" L-5' LONG (GALVANIZED) WELDED TO # 4 REBAR IN SLAB AS SHOWN IN REBAR DETAIL. GUTTER TO BE 9 1/8' +- 1/4' BELOW TOP CORNER OF LIP AT THIS POINT



REVISED 9/9/81



REBAR DETAIL

BARREL ABOVE F.L.	TOP OF INLET QUANTITIES		BARREL W/FLOOR QUANTITIES		C.I. STEPS
	LBS. STEEL	C.Y. CONC.	LBS. STEEL	C.Y. CONC.	
2'-0"	45.7	.25	86.68	.84	0
2'-6"	45.7	.25	97.12	1.01	0
3'-0"	45.7	.25	117.37	1.17	1
3'-6"	45.7	.25	127.71	1.34	1
4'-0"	45.7	.25	148.06	1.50	2
4'-6"	45.7	.25	158.40	1.67	2
5'-0"	45.7	.25	178.74	1.83	3
5'-6"	45.7	.25	189.09	1.99	3

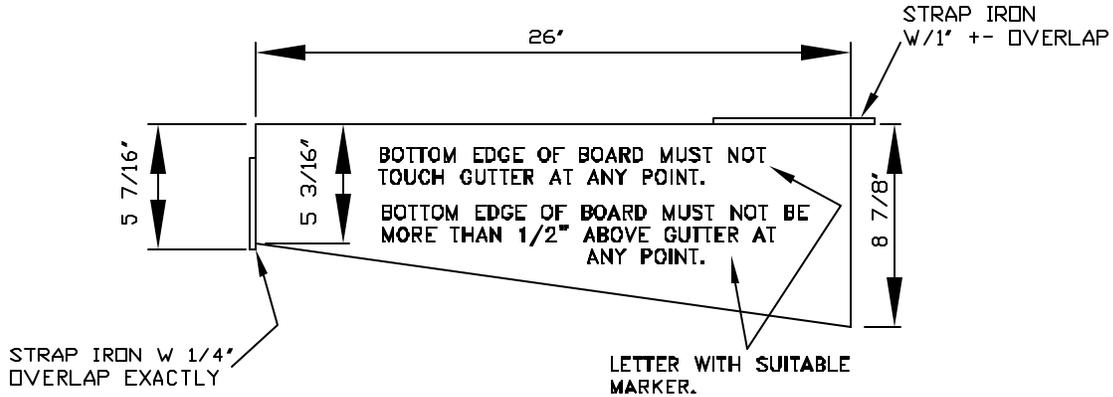
CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: JAN. 1976
DRAWN BY L.D.C.
APPVD. BY

STANDARD TYPE "D" MODIFIED INLET

PLAN 126-A 30F4

AUTOMATIC GUTTER LINE REJECTOR

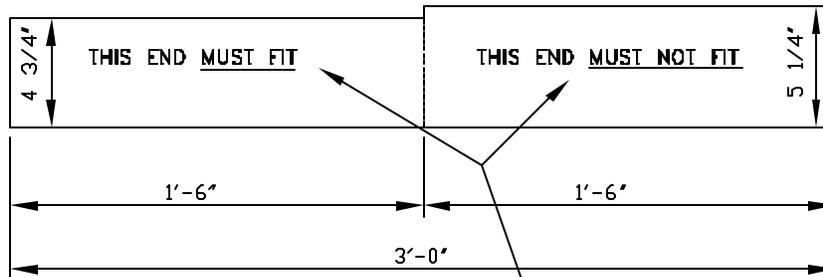


NOTE:

HANG RIGHT END OVER LIP OF INLET LIP LET LEFT END REST ON PAVEMENT.

CONSTRUCT FROM SUITABLE 2x MATERIAL ATTACH STRAP IRON WITH SUITABLE FASTNERS.

AUTOMATIC THROAT REJECTOR



CONSTRUCT FROM SUITABLE 2x MATERIAL

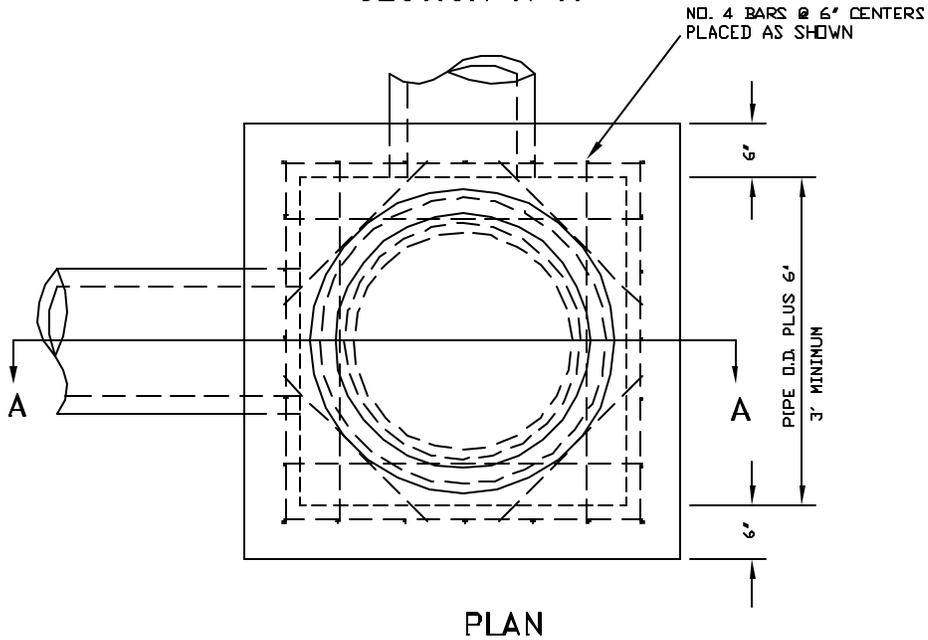
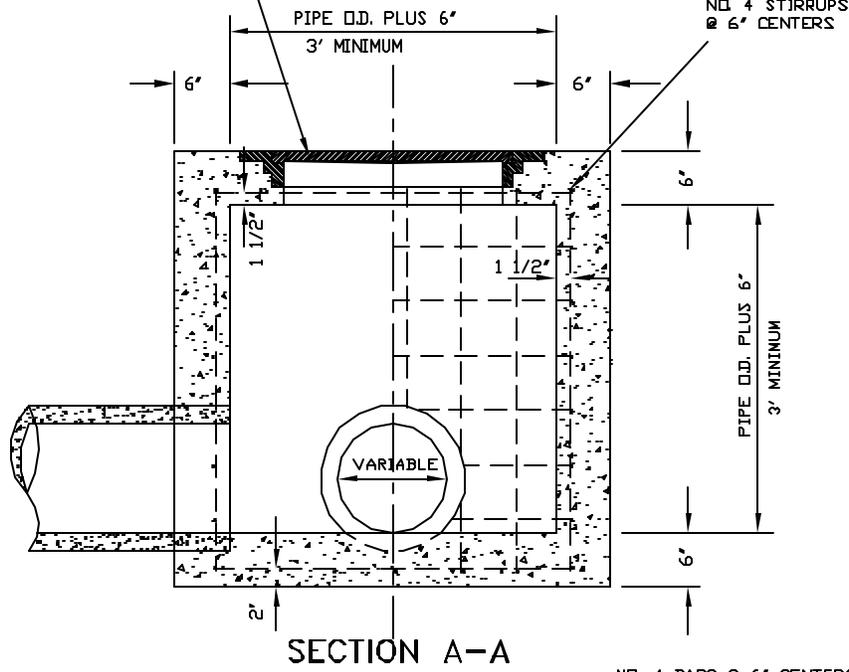
LETTER WITH SUITABLE MARKER

NOTE:

LEFT END OF BOARD MUST PASS FREELY THROUGH THROAT. RIGHT END OF BOARD MUST NOT CLEAR THROAT.

CONTRACTOR MUST CHECK GUTTER & THROAT OF TYPE "D" MODIFIED INLETS WITH ABOVE BOARDS WHILE CONCRETE IS STILL WORKABLE.

USE DEETER NO. 1052
MANHOLE COVER & OR
APPROVED EQUAL



REVISED 9/9/81, 9/11/84

CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: FEB. 1964
DRAWN BY J.V.N.
APPVD. BY

JUNCTION
BOX

PLAN
128

NOTE:

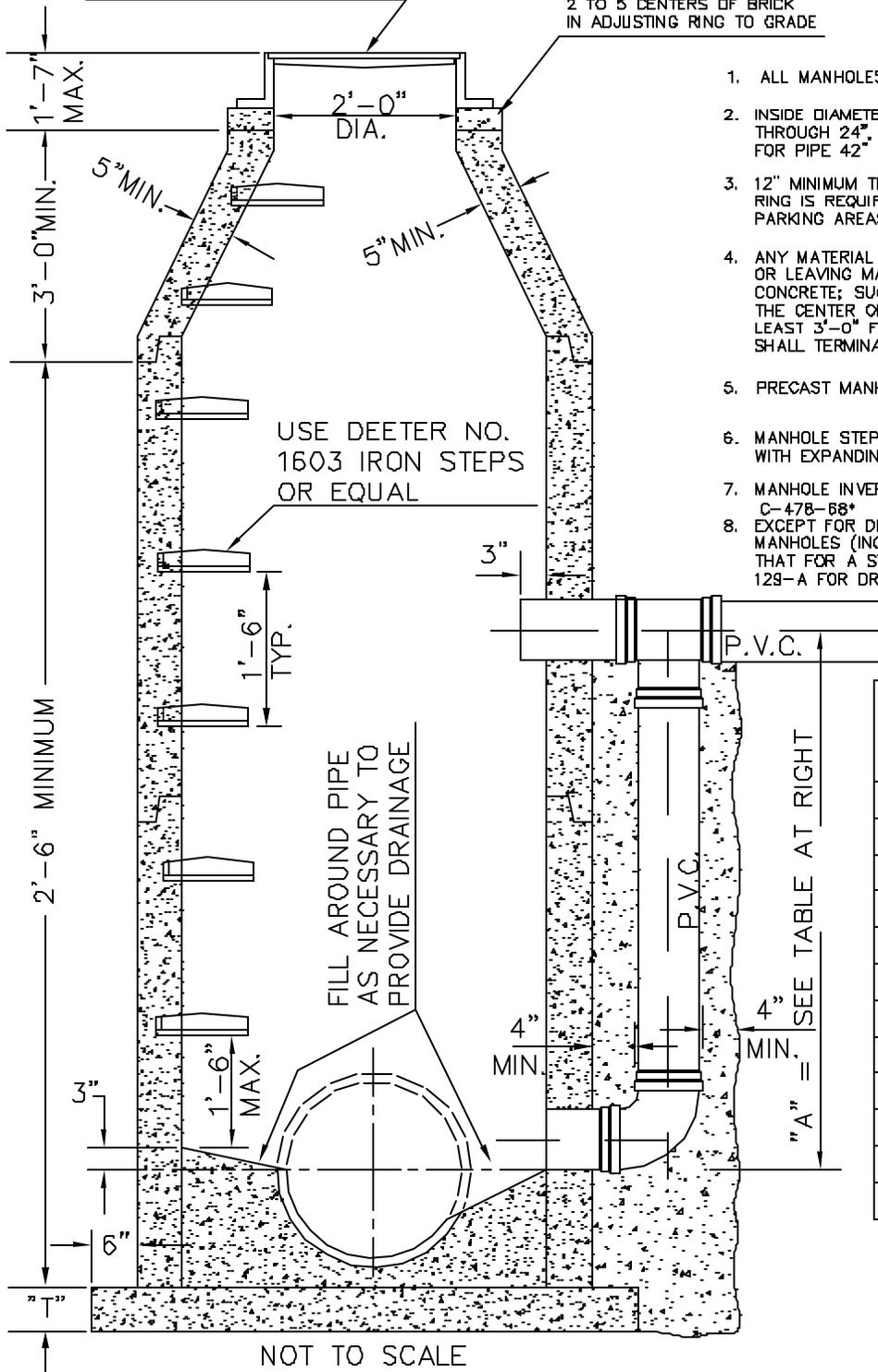
SEE STANDARD PLAN NO. 130-A
FOR DETAIL OF RING & COVER &
PLAN VIEW

MANHOLE RING & COVER TO BE
DEETER NO. 1030 OR EQUAL, WITH
MACHINED EDGES & MINIMUM WEIGHT
OF 450 LBS.

USE ADJUSTING RINGS OR
2 TO 5 CENTERS OF BRICK
IN ADJUSTING RING TO GRADE

MANHOLE NOTES

1. ALL MANHOLES RINGS TO BE SET IN MORTAR.
2. INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE THROUGH 24", 5'-0" FOR PIPE 27" THROUGH 36", & 6'-0" FOR PIPE 42" THROUGH 48" IN SIZE & 7'-0" FOR 54" PIPE.
3. 12" MINIMUM THICKNESS ADJUSTING RINGS UNDER MANHOLE RING IS REQUIRED WHEN MANHOLE IS LOCATED IN ROADWAYS, PARKING AREAS, SIDEWALKS, ETC.
4. ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLES SHALL BE REPLACED WITH CONCRETE; SUCH CONCRETE FILL SHALL EXTEND TO THE CENTER OF THE PIPE FOR A DISTANCE OF AT LEAST 3'-0" FROM THE FACE OF THE MANHOLE AND SHALL TERMINATE AT A BELL
5. PRECAST MANHOLE CIRCULAR SECTIONS TO BE PER A.S.T.M.
6. MANHOLE STEPS IN PRECAST MANHOLES TO BE GROUTED WITH EXPANDING GROUT.
7. MANHOLE INVERTS SHALL BE POURED CONCRETE, * C-478-58*
8. EXCEPT FOR DROP ASSEMBLY, THE CONSTRUCTION OF DROP MANHOLES (INCLUDING MATERIALS) SHALL BE SIMILAR TO THAT FOR A STD. MANHOLE. SEE STD. PLAN NO. 129 & 129-A FOR DROP MANHOLE DETAILS



I.D. INCOMING PIPE	I.D. DROP PIPE	"A" MINIMUM
8"	8"	2'-0"
10"	10"	2'-0"
12"	12"	2'-0"
15"	12"	2'-0"
18"	15"	2'-2"
21"	18"	2'-7"
24"	18"	2'-9"
27"	18"	2'-10"
30"	18"	3'-1"
36"	18"	3'-4"
42"	AS DIRECTED BY	
48"	CITY ENGINEER	

NOT TO SCALE

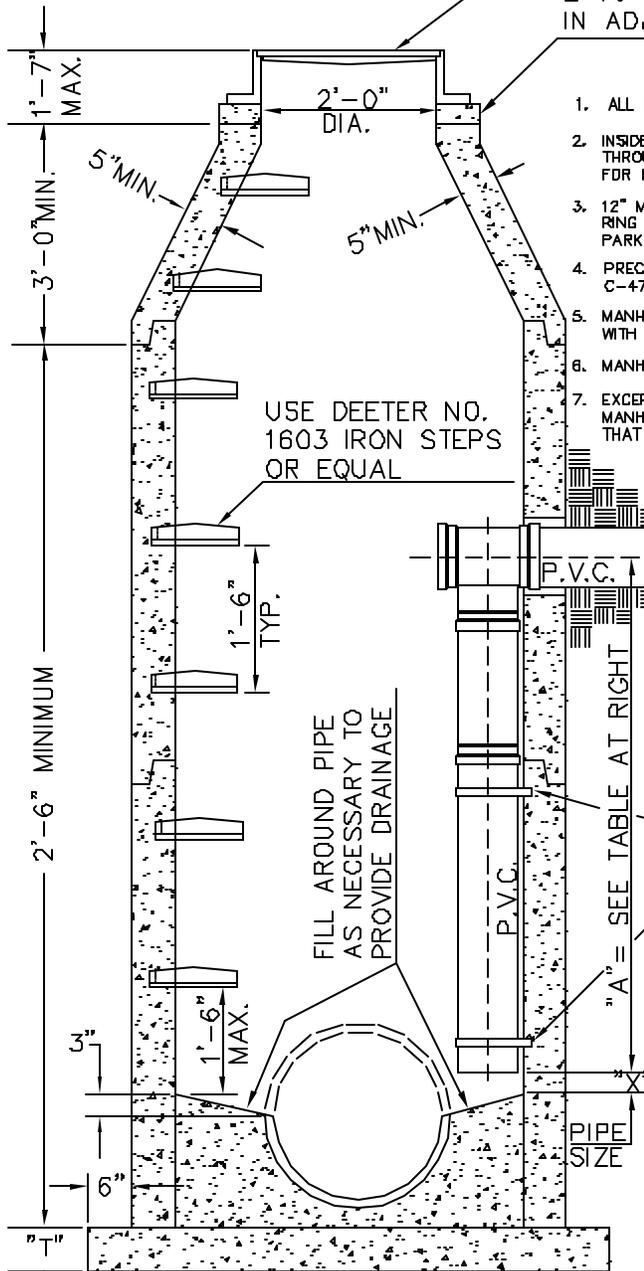
"T" = 6" FOR 4' DIAMETER MANHOLE
"T" = 8" FOR 5" DIAMETER MANHOLE

* ALL CONCRETE TO CONFORM TO DIVISION II CONCRETE PAVING SPECIFICATIONS.

MANHOLE RING & COVER TO BE DEETER NO. 1030 OR EQUAL, WITH MACHINED EDGES & MINIMUM WEIGHT OF 450 LBS.

SEE STANDARD PLAN NO. 130-A FOR DETAIL OF RING & COVER & PLAN VIEW

USE ADJUSTING RINGS OR 2 TO 5 CENTERS OF BRICK IN ADJUSTING RING TO GRADE



MANHOLE NOTES

1. ALL MANHOLES RINGS TO BE SET IN MORTAR.
2. INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE THROUGH 24", 5'-0" FOR PIPE 27" THROUGH 36", & 6'-0" FOR PIPE 42" THROUGH 48" IN SIZE.
3. 12" MINIMUM THICKNESS ADJUSTING RINGS UNDER MANHOLE RING IS REQUIRED WHEN MANHOLE IS LOCATED IN ROADWAYS, PARKING AREAS, SIDEWALKS, ETC.
4. PRECAST MANHOLE CIRCULAR SECTIONS TO BE PER A.S.T.M. C-478-68*
5. MANHOLE STEPS IN PRECAST MANHOLES TO BE GROUTED WITH EXPANDING GROUT.
6. MANHOLE INVERTS SHALL BE POURED CONCRETE.*
7. EXCEPT FOR DROP ASSEMBLY, THE CONSTRUCTION OF DROP MANHOLES INCLUDING MATERIALS SHALL BE SIMILAR TO THAT FOR A STANDARD MANHOLE

* ALL CONCRETE TO CONFORM TO DIVISION II CONCRETE PAVING SPECIFICATIONS.

STRAP DROP STRUCTURE TO MANHOLE WALL AT 3'-0" INTERVALS

I.D. INCOMING PIPE	I.D. DROP PIPE	"A" MINIMUM
4"	4"	2'-0"
6"	6"	2'-0"

NOTE:

DROP PIPE ANY LARGER THAN 6" CAN ONLY BE INSTALLED IN A MANHOLE WITH PERMISSION OF THE PUBLIC WORKS DEPT. MANHOLE SIZE MAY VARY.

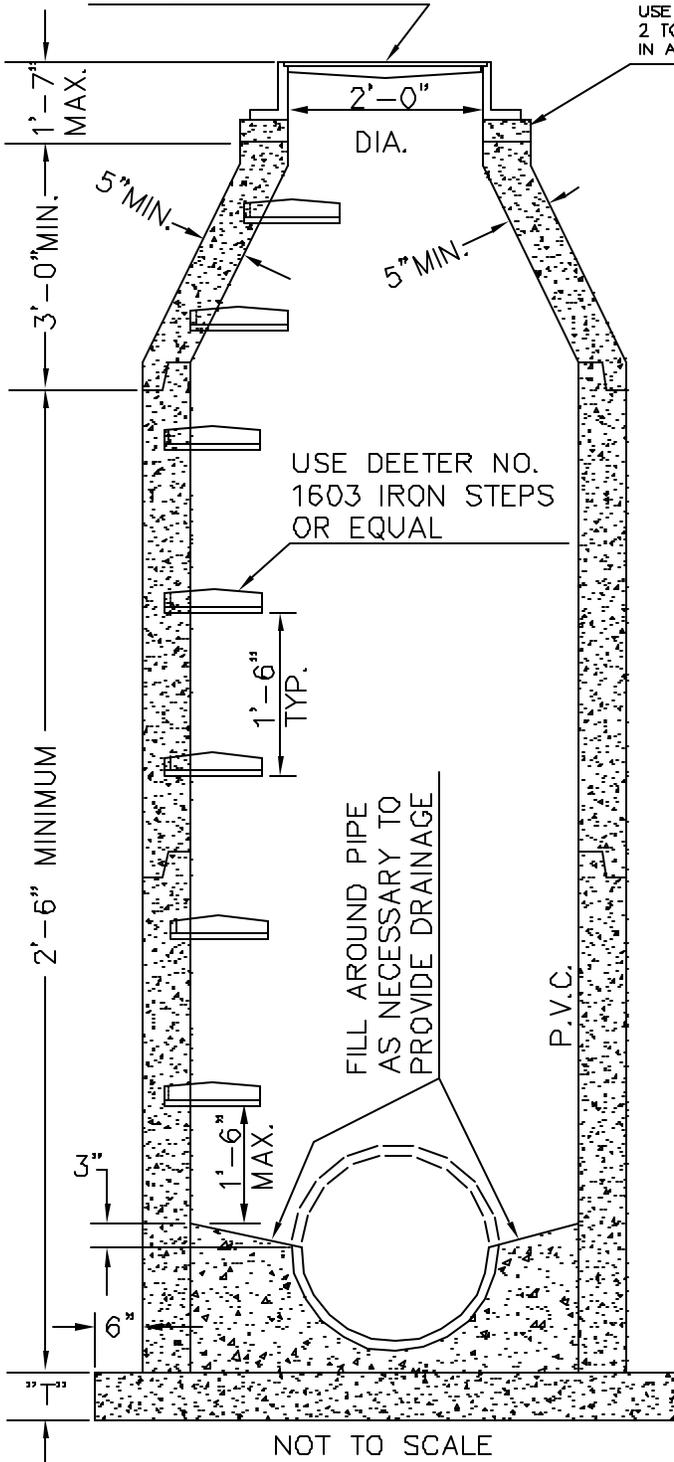
"T" = 6" FOR 4' DIAMETER MANHOLE
 "T" = 8" FOR 5" DIAMETER MANHOLE

NOTE:

MANHOLE RING & COVER TO BE DEETER NO. 1030 OR EQUAL, WITH MACHINED EDGES & MINIMUM WEIGHT OF 450 LBS.

SEE STANDARD PLAN NO. 130-A FOR DETAIL OF RING & COVER & PLAN VIEW

USE ADJUSTING RINGS OR 2 TO 5 CENTERS OF BRICK IN ADJUSTING RING TO GRADE



MANHOLE NOTES

1. ALL MANHOLES RINGS TO BE SET IN MORTAR.
2. INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE THROUGH 24", 5'-0" FOR PIPE 27" THROUGH 36", & 6'-0" FOR PIPE 42" THROUGH 48" IN SIZE & 7'-0" FOR 54" PIPE.
3. 12" MINIMUM THICKNESS ADJUSTING RINGS UNDER MANHOLE RING IS REQUIRED WHEN MANHOLE IS LOCATED IN ROADWAYS, PARKING AREAS, SIDEWALKS, ETC.
4. ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLES SHALL BE REPLACED WITH CONCRETE; SUCH CONCRETE FILL SHALL EXTEND TO THE CENTER OF THE PIPE FOR A DISTANCE OF AT LEAST 3'-0" FROM THE FACE OF THE MANHOLE AND SHALL TERMINATE AT A BELL.
5. PRECAST MANHOLE CIRCULAR SECTIONS TO BE PER A.S.T.M. C-478-68*
6. MANHOLE STEPS IN PRECAST MANHOLES TO BE GROUTED WITH EXPANDING GROUT.
7. MANHOLE INVERTS SHALL BE POURED CONCRETE.
8. EXCEPT FOR DROP ASSEMBLY, THE CONSTRUCTION OF DROP MANHOLES (INCLUDING MATERIALS) SHALL BE SIMILAR TO THAT FOR A STANDARD MANHOLE.
9. A DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE 24" OR MORE ABOVE THE INVERT. SEE STANDARD PLAN NO. 129 & 129-A FOR DROP MANHOLE DETAILS.

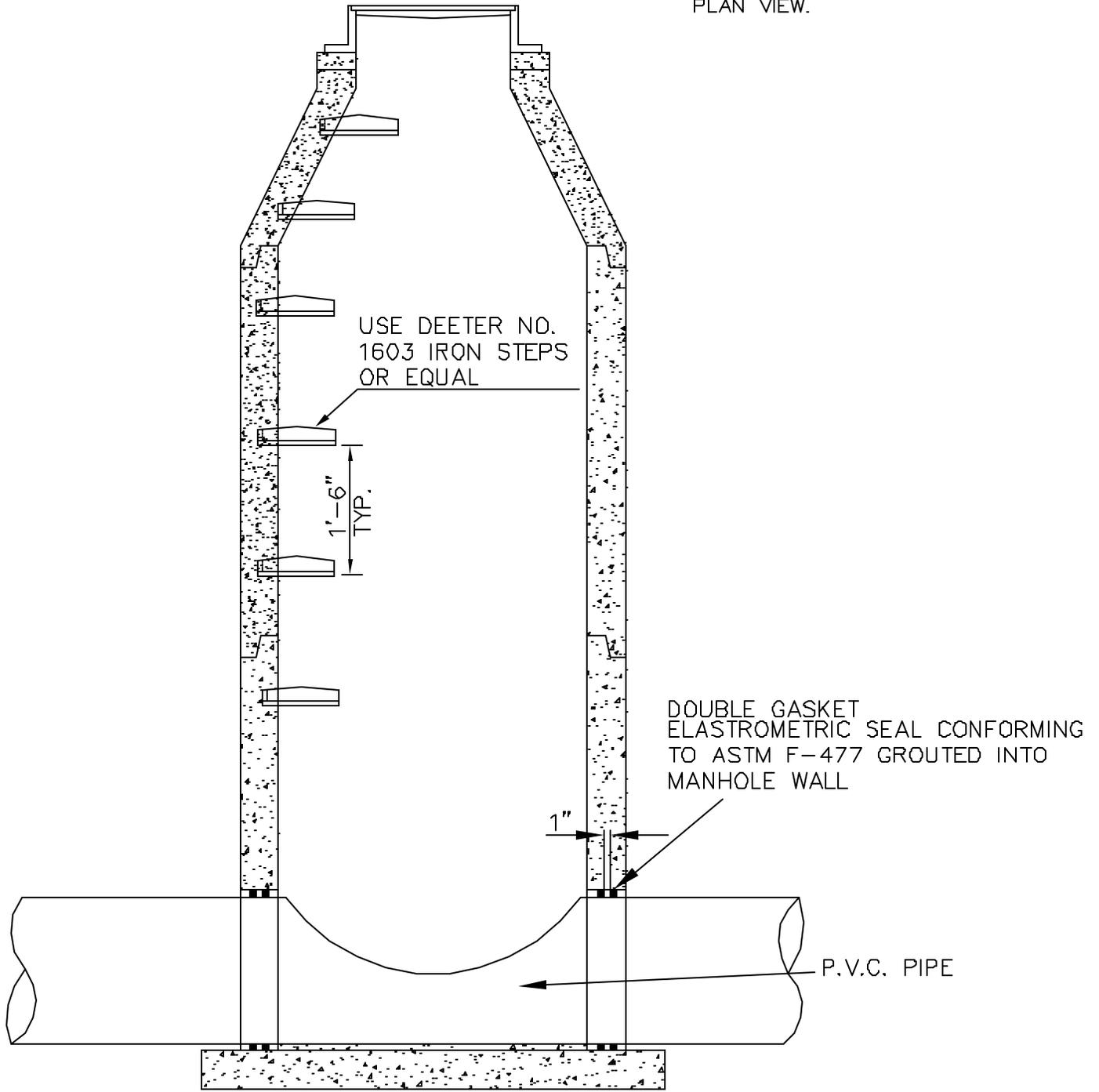
* ALL CONCRETE TO CONFORM TO DIVISION V STORM & SANITARY SEWERS, SECTION 26.14, SULFATE RESISTANT CONCRETE SPECIFICATIONS

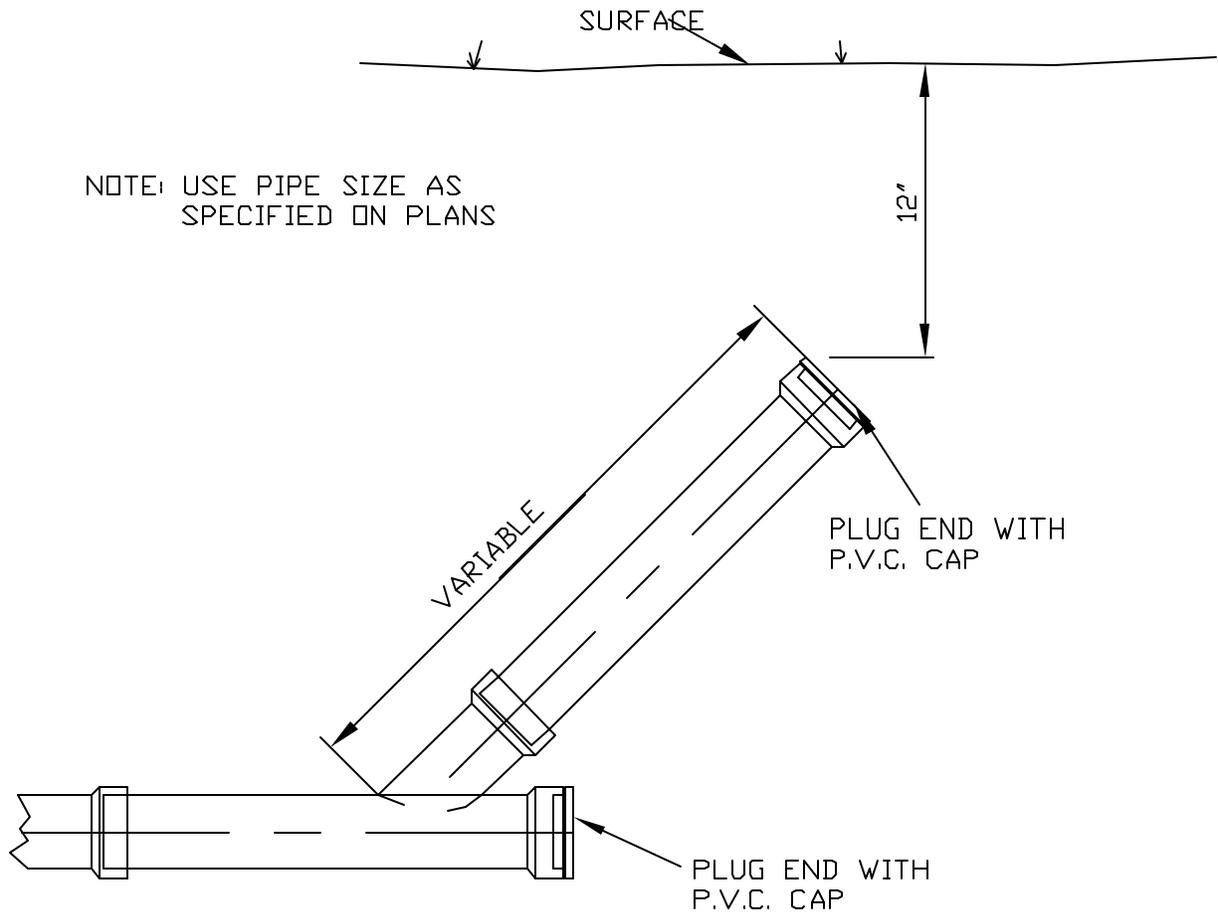
NOT TO SCALE

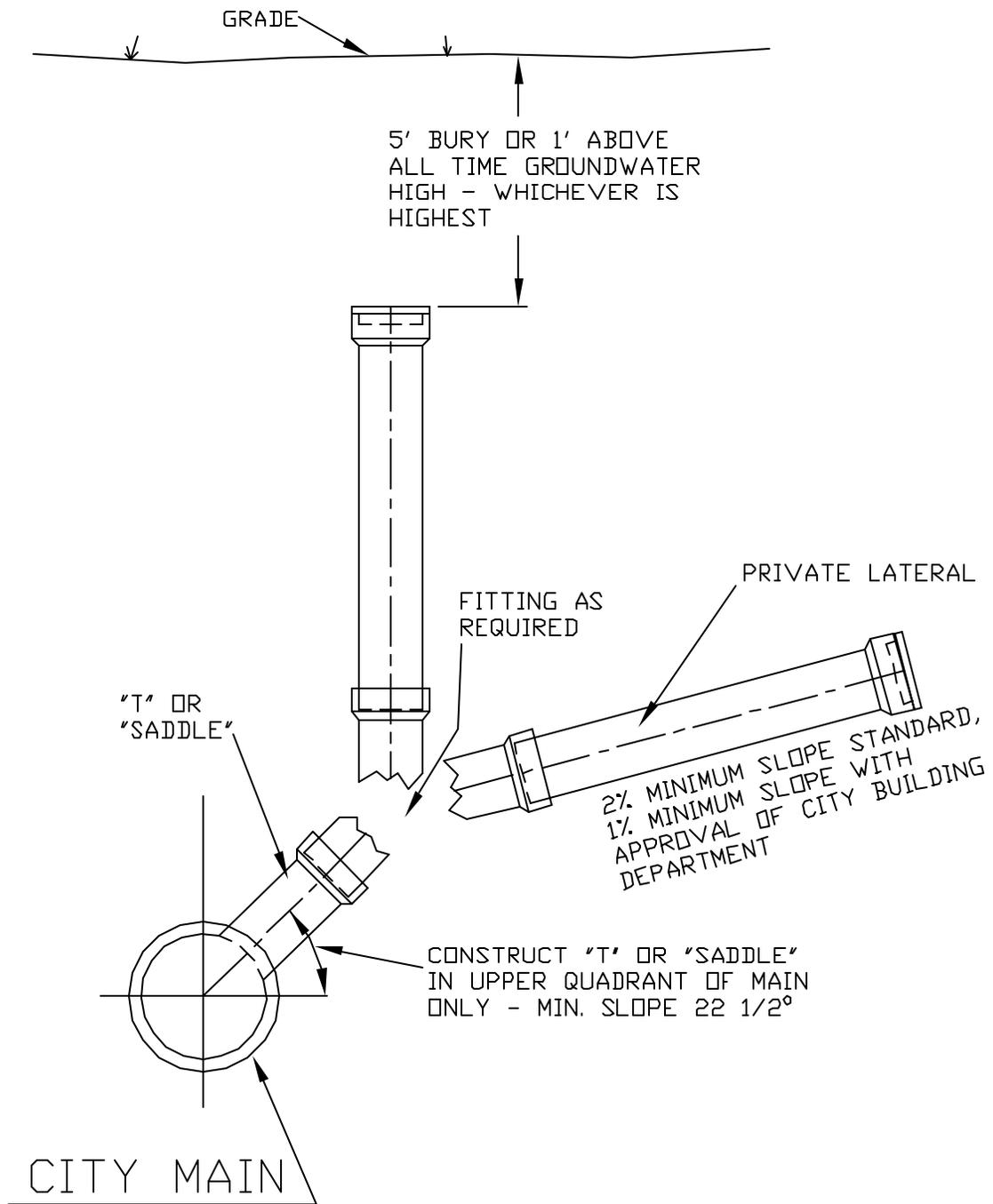
"T" = 6" FOR 4' DIAMETER MANHOLE
 "T" = 8" FOR 5" DIAMETER MANHOLE

NOTE:

SEE STANDARD PLAN NO. 130
FOR DETAIL OF MANHOLE.
SEE STANDARD PLAN NO.130-A
FOR DETAIL OF RING & COVER &
PLAN VIEW.





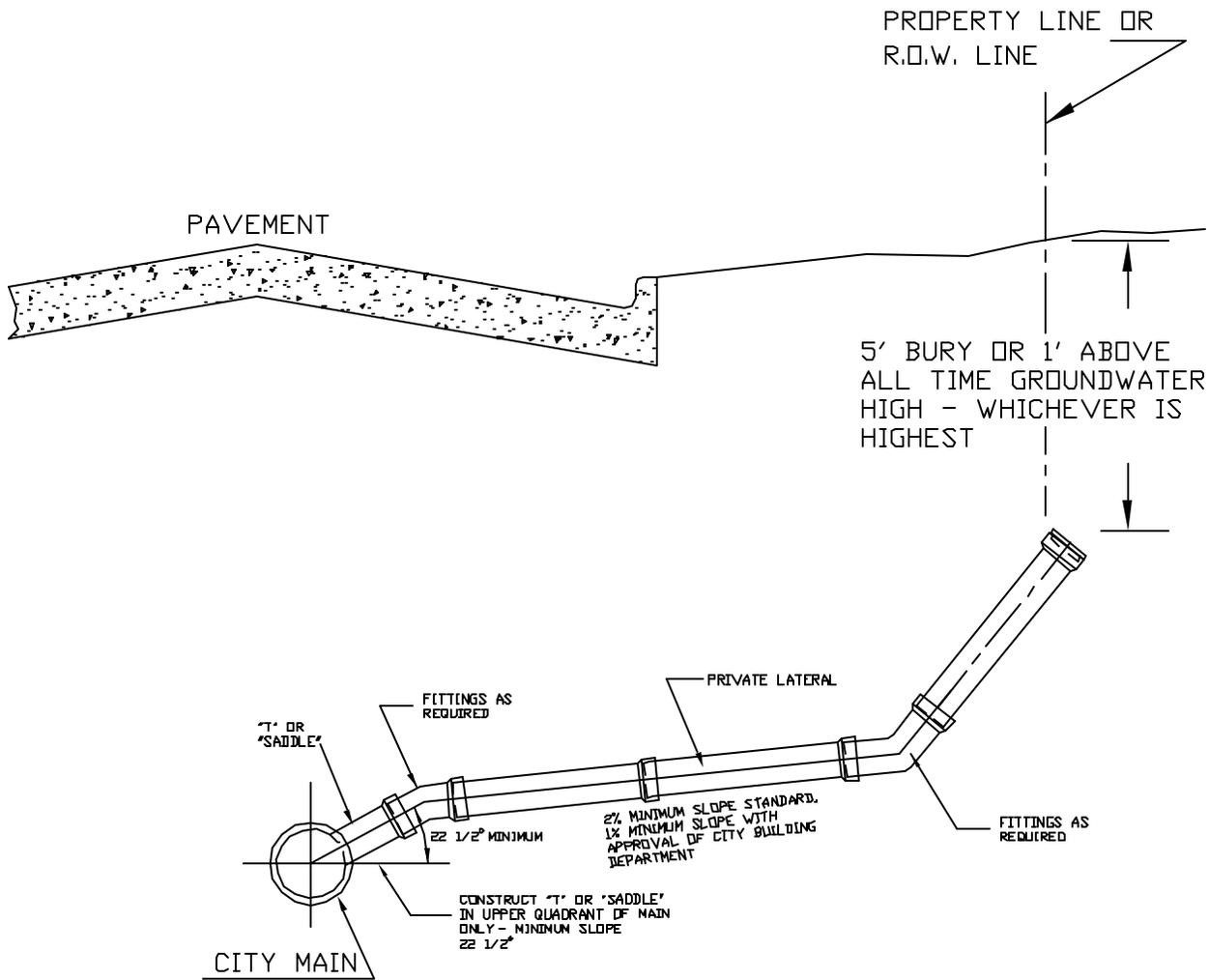


CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: 12/28/00
DRAWN BY L.D.C.
APPVD. BY S.P.R.

SANITARY SEWER
SERVICE LINE
CONNECTION

PLAN
132

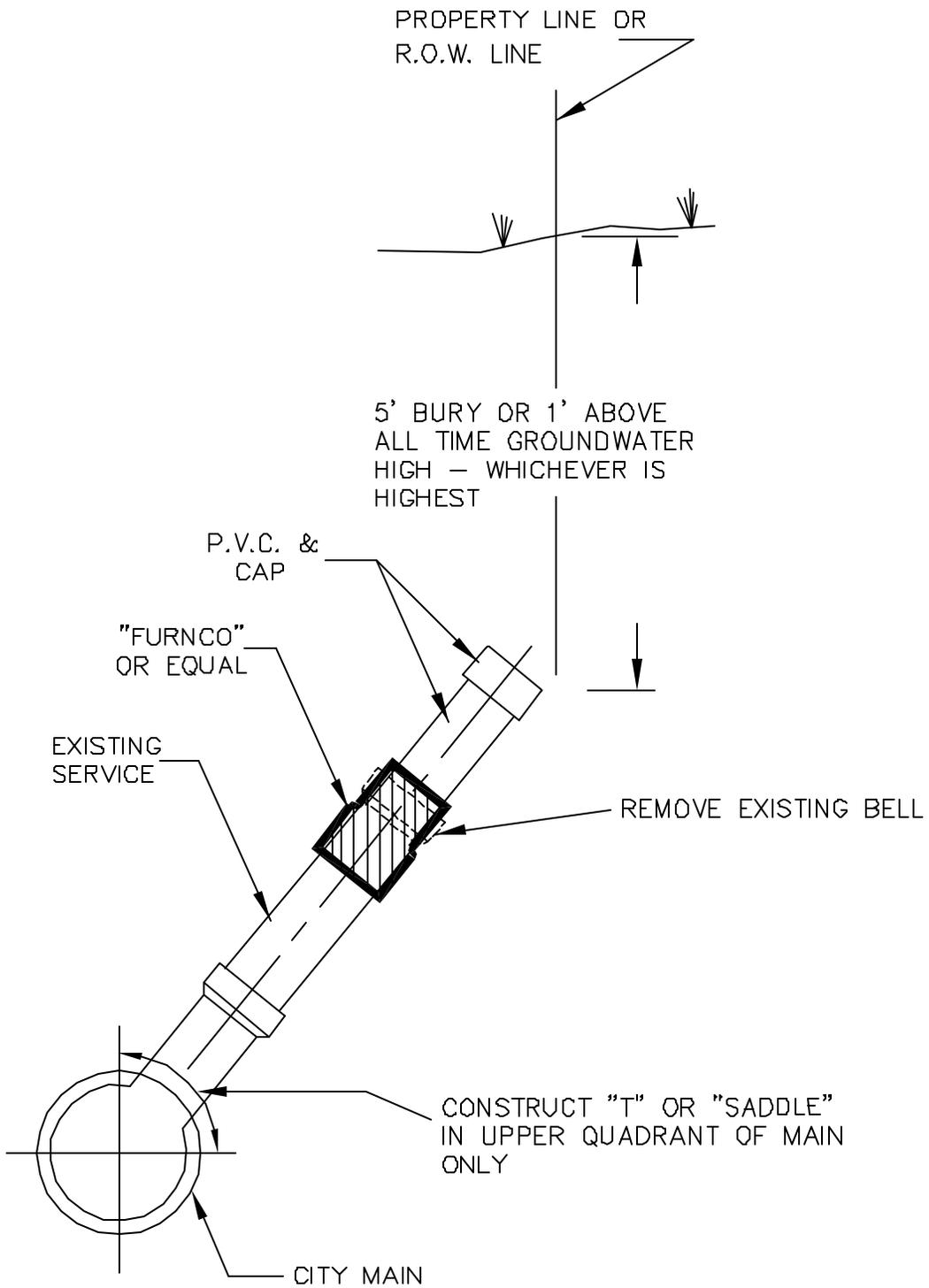


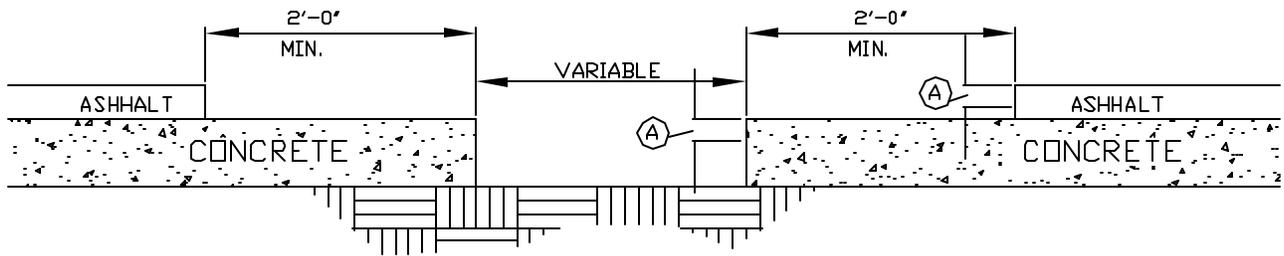
CITY OF GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: 11/29/00
 DRN BY: P.S.
 APPD. BY: S.P.R.

SANITARY SEWER
 SERVICE LINE
 CONNECTION
 UNDER PAVEMENT

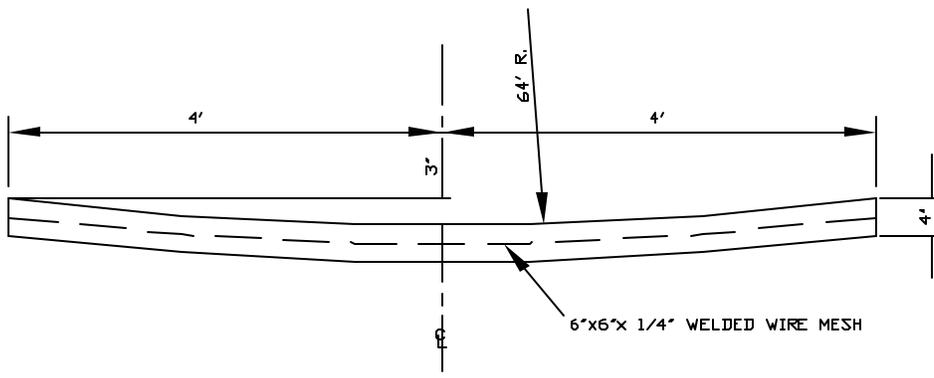
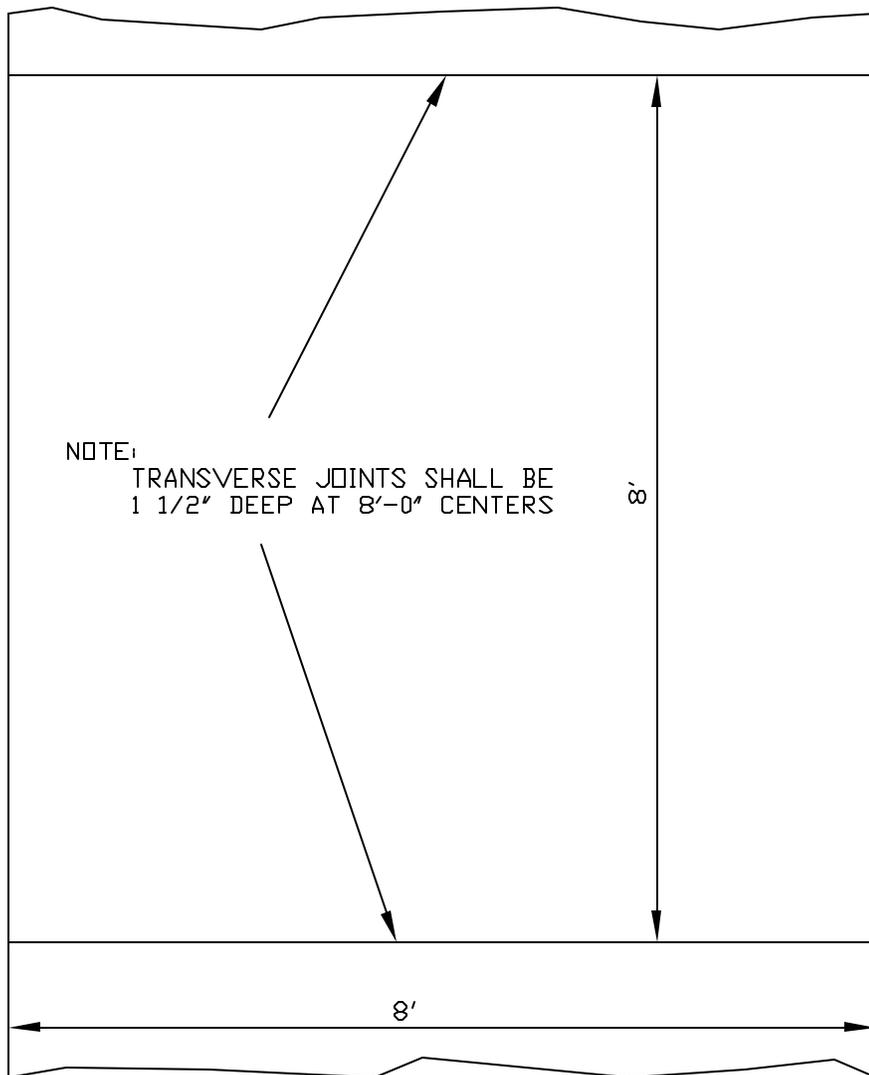
PLAN
 132-A





(A) THE MINIMUM SAW CUT ON BOTH ASPHALT & CONCRETE IS TWO INCHES (0'-2").

THE ASPHALT MUST BE TAKEN OUT AT LEAST TWO FOOT (2'-0") FROM THE CONCRETE SAW CUT.



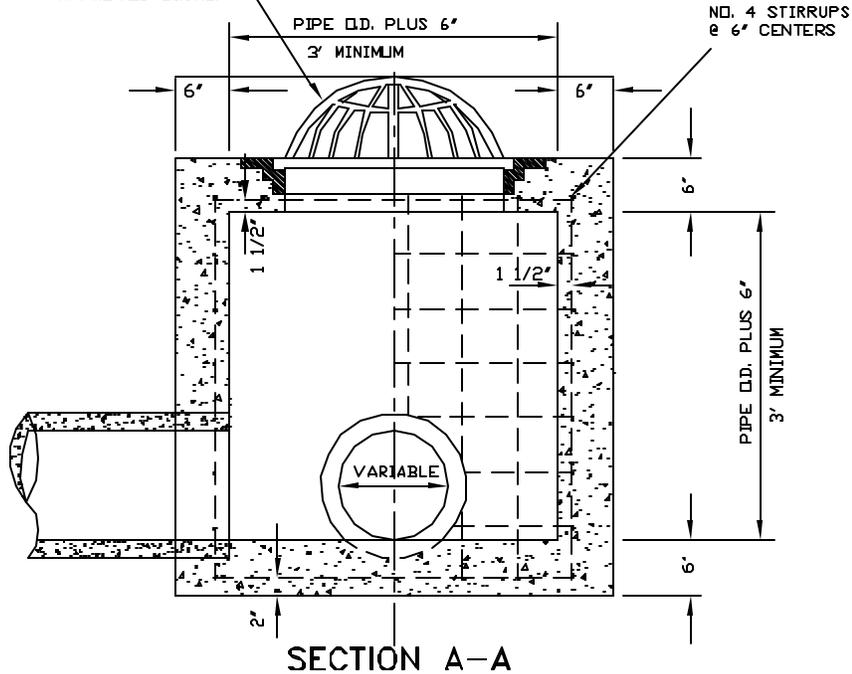
CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: FEB. 1976
DRAWN BY L.D.C.
APPVD. BY

CONCRETE APRON
DETAIL

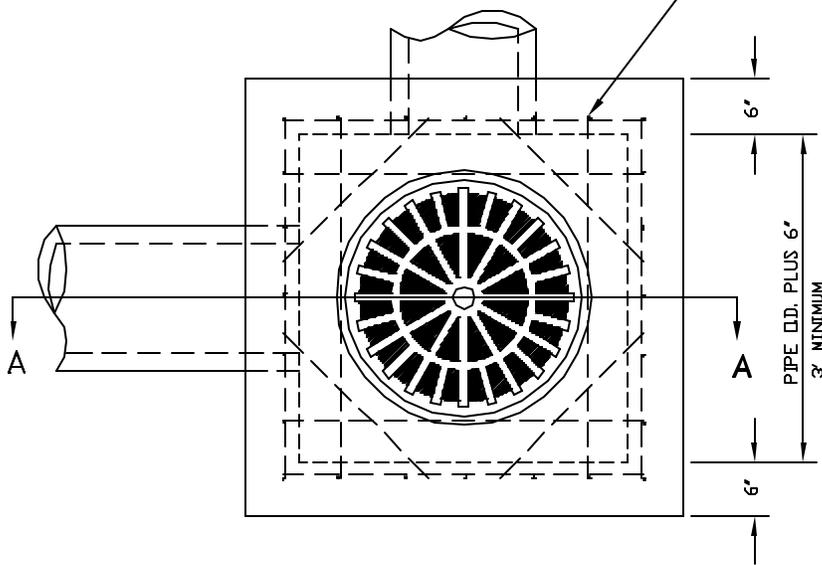
PLAN
145

USE DEETER NO. 4495
MANHOLE COVER (OR
APPROVED EQUAL)



SECTION A-A

NO. 4 BARS @ 6" CENTERS
PLACED AS SHOWN



PLAN

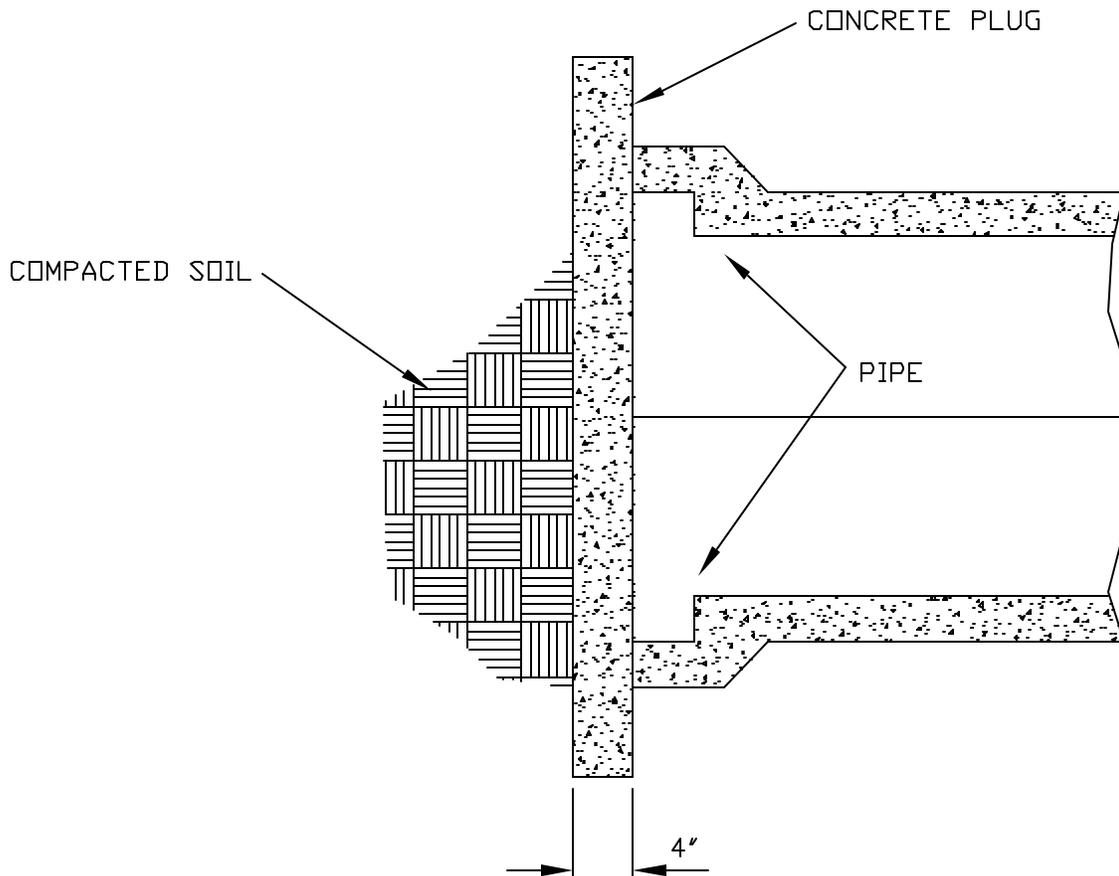
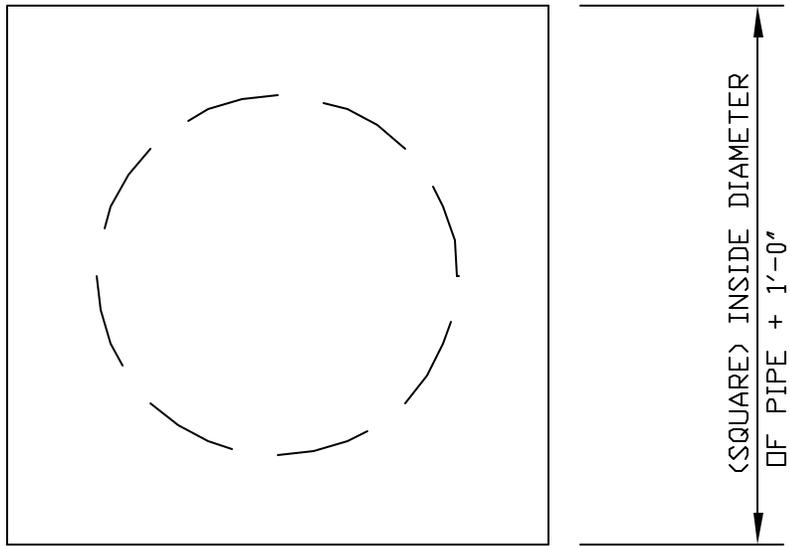
REVISED MARCH 24, 1989

CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: FEB. 1964
DRAWN BY L.D.C.
APPVD. BY

JUNCTION BOX
WITH
BEEHIVE INLET

PLAN
149



CITY OF
GRAND ISLAND
PUBLIC WORKS DEPARTMENT

DATE: FEB 1978
DRAWN BY P.E.S.
APPVD. BY B.T.

CONCRETE PLUG
FOR
STORM SEWER PIPE

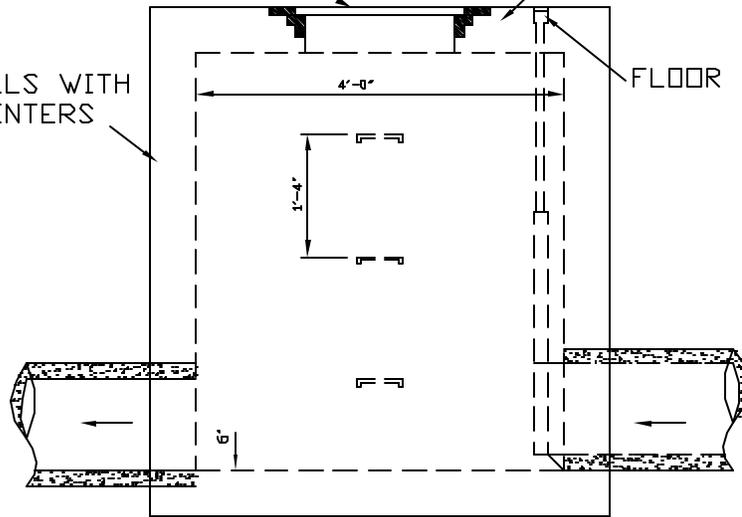
PLAN
150

USE DEETER NO. 2010
CATCH BASIN COVER
(OR APPROVED EQUAL)

6" CONC. TOP WITH
4 BARS @ 6" CENTERS
BOTH WAYS

POURED CONC. WALLS WITH
4 BARS @ 6" CENTERS
BOTH WAYS

FLOOR BOX & COVER



36" LONG SLIP-ON
OPERATOR

STANDARD SQUARE
OPERATING NUT

DEETER MS11
MANHOLE STEPS
(OR EQUAL)

ARMCO 20-10C
SLUICE GATE AT
90 TO PIPE

