

PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH AASHTO : "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2001".

**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 IN CO-OPERATION WITH  
 MICHIGAN DEPARTMENT OF TRANSPORTATION & FHWA

CONTROL SECTION NO. EDCF 82544 JOB NO. 75941A  
 FED. PROJ. NO. MG - 0382(421) FED. ITEM NO. RR 3751

WIDENING OF LINWOOD FROM FENKELL TO LODGE FWY. S. SERVICE DR. &  
 RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
MI				

STREET	CITY	COUNTY	TWP	SHEET NO.	TOTAL SHEETS

TRAFFIC VOLUME	CURRENT	2020
ADT	15,403	18,484

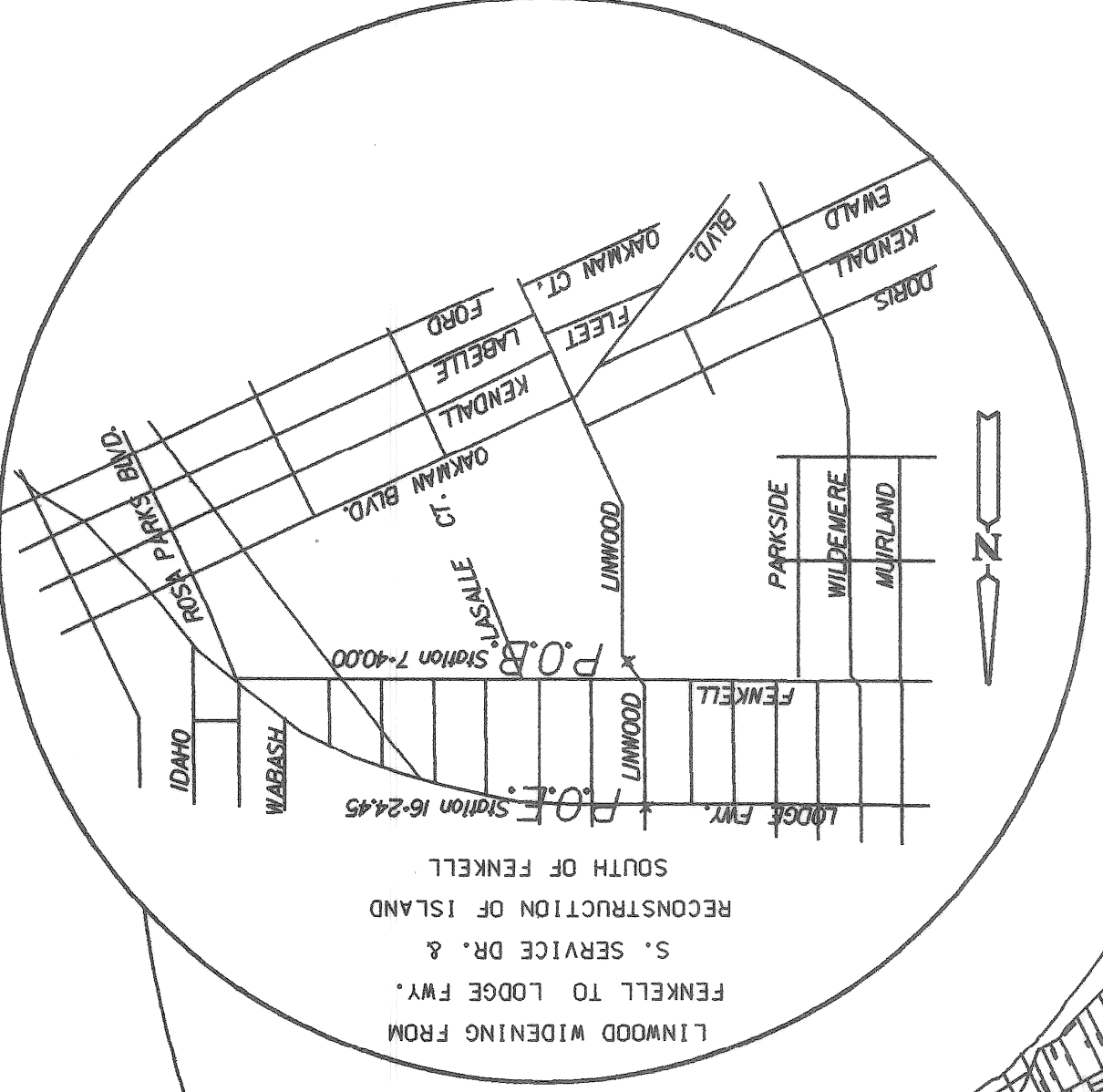
  

DESIGN SPEED	VARIES
POSTED SPEED	30 MPH

CALL MISS DIG  
 72 HOURS PRIOR  
 TO CONSTRUCTION  
 1-800-482-7171

- INDEX OF SHEETS
- 1 TITLE SHEET
  - 2 SITE PLAN
  - 3 TYPICAL SECTIONS
  - 4-5 UTILITY AND REMOVAL PLAN
  - 6 ISLAND DETAILS
  - 7-8 PLAN AND PROFILE
  - 9 PAVEMENT MARKING PLAN
  - 10-18 P.L.D. PLANS
  - 19-37 TRAFFIC SIGNAL, FENKELL AT LINWOOD
  - 38-39 QUANTITY SHEET

- MDOT STANDARD PLANS
- \*R-28-D SIDEWALK RAMP DETAILS
  - R-29-D DRIVEWAY OPENINGS & APPROACHES,
  - AND CONCRETE SIDEWALKS
  - R-39-F TRANSVERSE PAVEMENT JOINTS
  - R-40-E LOAD TRANSFER ASSEMBLIES FOR TRANSVERSE JOINTS
  - R-41-D LONGITUDINAL PAVEMENT JOINTS
  - R-43-D LOCATION OF TRANSVERSE JOINTS IN CONCRETE PAVEMENT
  - \*R-44-D CONCRETE PAVEMENT REPAIR
  - R-45-D CONVENTIONAL PAVEMENT REINFORCEMENT
  - R-83-B UTILITY TRENCHES
  - \*R-100-D SODDING, SEEDING AND TREE PLANTING
  - \*R-125-C TEMPORARY TRAFFIC CONTROL DEVICES



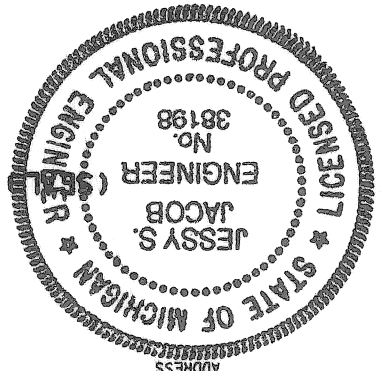
CONTRACT FOR: WIDENING OF LINWOOD FROM FENKELL TO LODGE FWY. S. SERVICE DR. & RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL  
 Length of project - 0.12 miles  
 2003 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.  
 THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION

**LOCAL AUTHORITY APPROVAL**  
 CITY OF DETROIT  
 CITY ENGINEERING DIVISION  
 DEPARTMENT OF PUBLIC WORKS

APPROVED BY: *[Signature]*  
 DATE: 10/7/03

APPROVED BY: *[Signature]*  
 DATE: 10/7/03

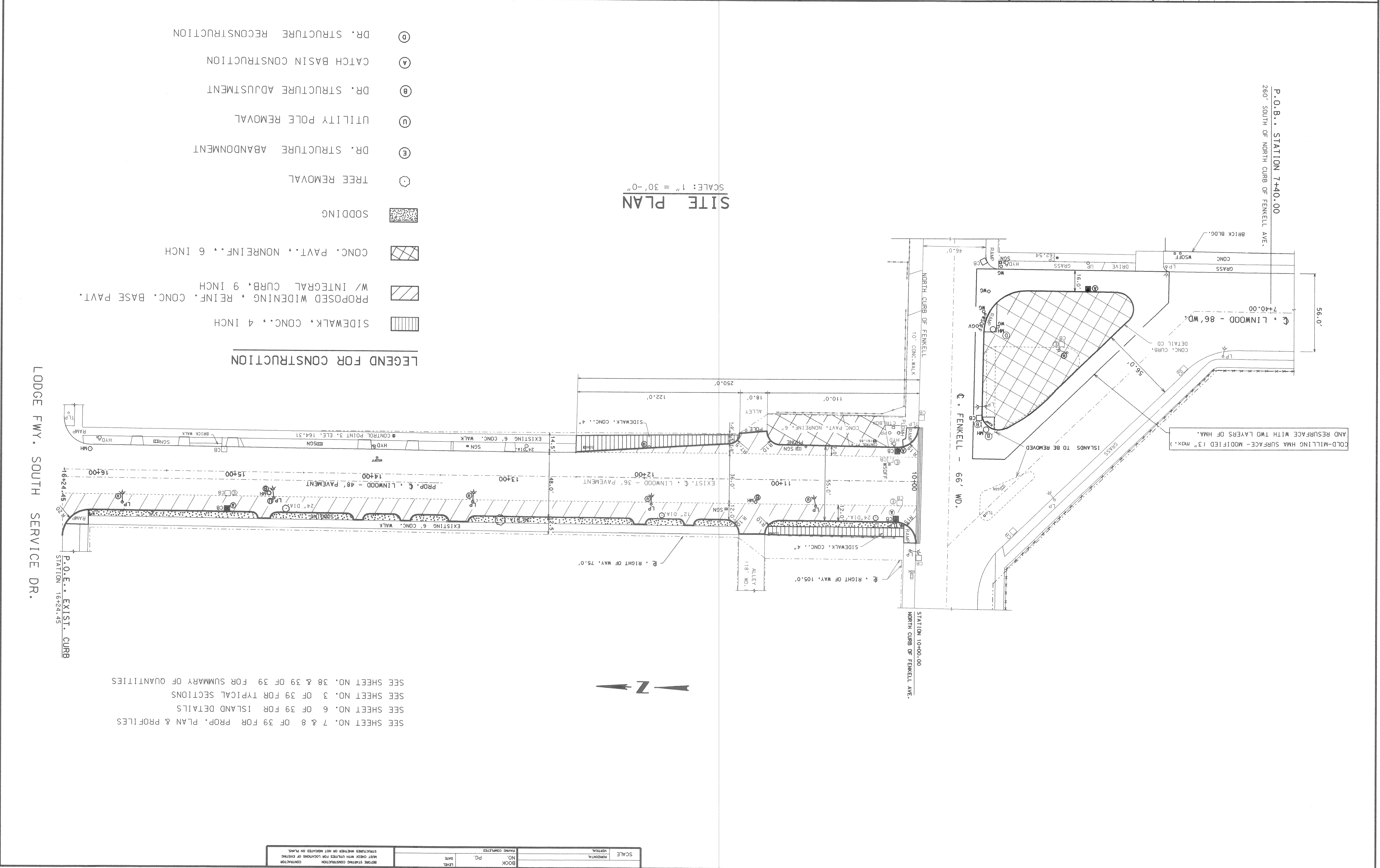
PREPARED UNDER SUPERVISION OF  
 REGISTERED PROFESSIONAL ENGINEER  
 JESSY JACOB  
 NO. 38198



DETROIT, MICHIGAN



DATE: JULY, 2003.		NO.: 02 - 19 - 24		ASSIGNMENT		CONTRACT		SHEET 2 OF 39 SHEETS	
WIDENING OF LINWOOD BETWEEN FENKELL & LODGE FWY. S. SERVICE DR. & RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL		CITY OF DETROIT		DEPARTMENT OF PUBLIC WORKS		CITY ENGINEERING DIVISION		BUREAU OF STREETS AND HIGHWAYS DESIGN	
P.L.N. J. Jacob		E.M.G. ENGINEER OF STREETS		M. J. JACOBS		HEAD ENGINEER		APPROVED:	
PLAN		GRADE		ESTIMATE		FINAL		CHECK	
BR		CHECKER		REVIEW		REVISIONS		DESCRIPTION	





(PROP. WIDENING OF LINWOOD BET. FENKELL & LODGE FWY. S. SERVICE DR.)  
 TYPICAL SECTION BETWEEN STA. 12+50 AND STA. 16+24.45

AND SHALL BE RESURFACED WITH SPECIFIED HMA SURF. MIXTURE.  
 AND WILL BE PAID FOR AS "HMA SURFACE, REM-MODIFIED" IN SYD.  
 REMOVED AS REQUIRED WHILE REMOVING THE CURB FOR WIDENING  
 HMA SURFACE NEXT TO THE EXIST. CURB SHALL BE

\* NOTE

0.00(EX.) - EXISTING PAVEMENT ELEVATION  
 0.00(G) - PROP. GUTTER ELEVATION  
 0.00(C) - PROP. TOP OF THE 7" CURB ELEVATION

GRANULAR MATERIAL, CLASS II  
 REINFC. CONC. BASE PAVT., W/INTEGRAL CURB, 9"  
 AGGREGATE BASE, 4 INCH

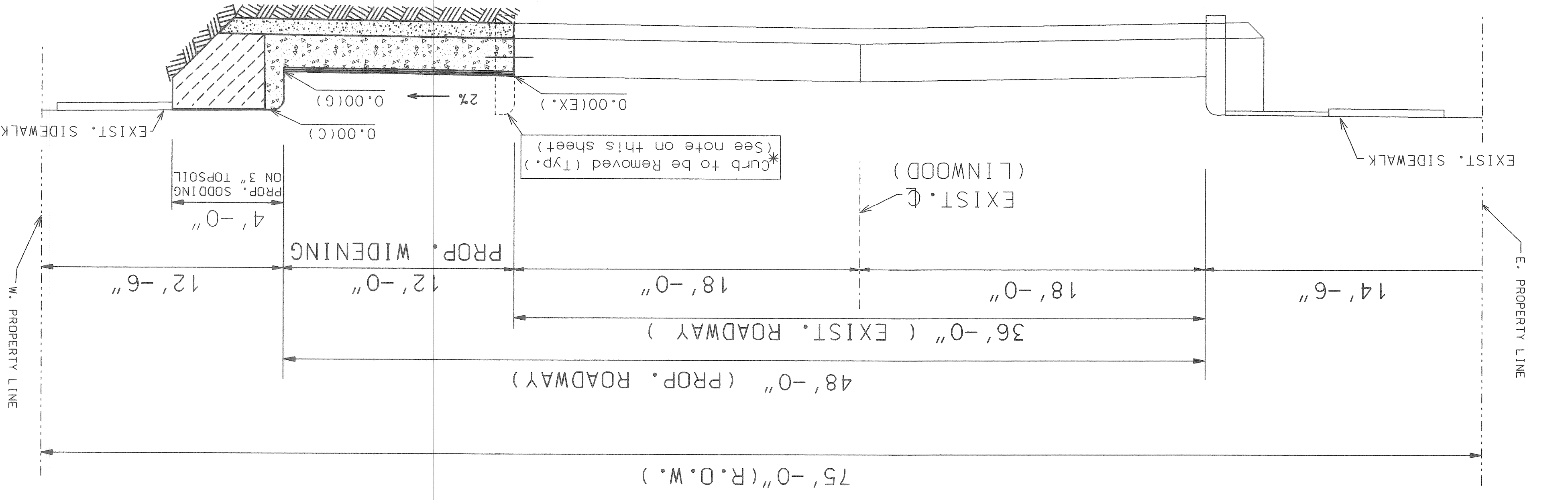
LEGEND

ITEM	RATE OF APPLICATION	EST. THICKNESS	PERFORMANCE GRADE
HMA, 4C	165 LB./SYD.	1.5 INCHES	58 - 28
HMA, 3C	170 LB./SYD.	1.5 INCHES	58 - 28

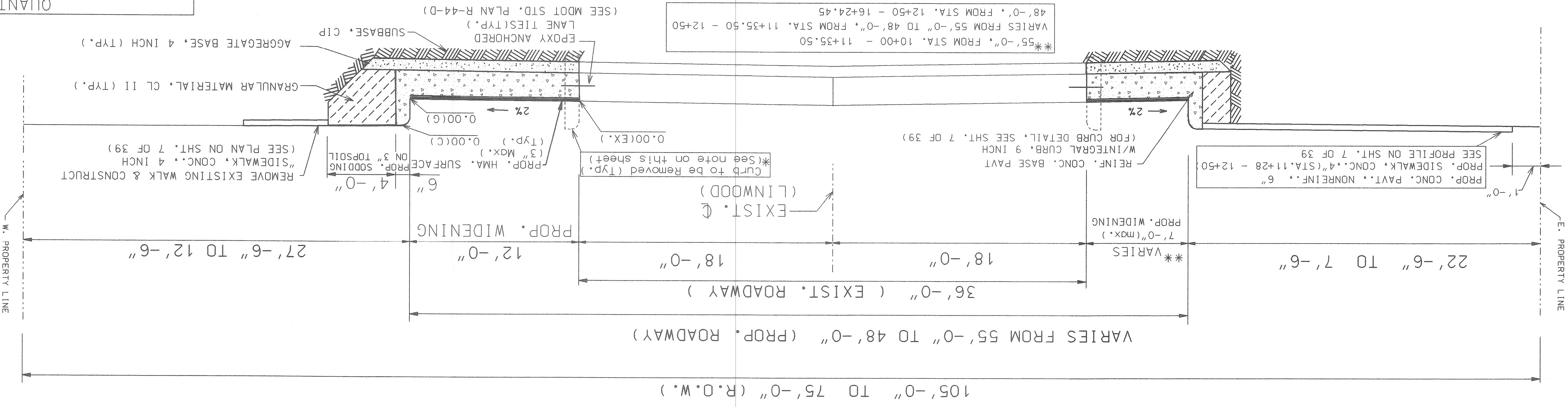
HMA APPLICATION CHART

QUANTITIES

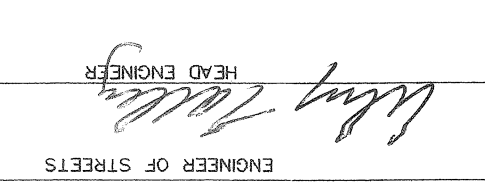
SUBBASE, CIP	350 CYD.
AGGREGATE BASE, 4 INCH	1030 SYD.
GRANULAR MATERIAL, CL II MODIFIED	200 CYD.



(PROP. WIDENING OF LINWOOD BET. FENKELL & LODGE FWY. S. SERVICE DR.)  
 TYPICAL SECTION BETWEEN STA. 10+00 AND STA. 12+50

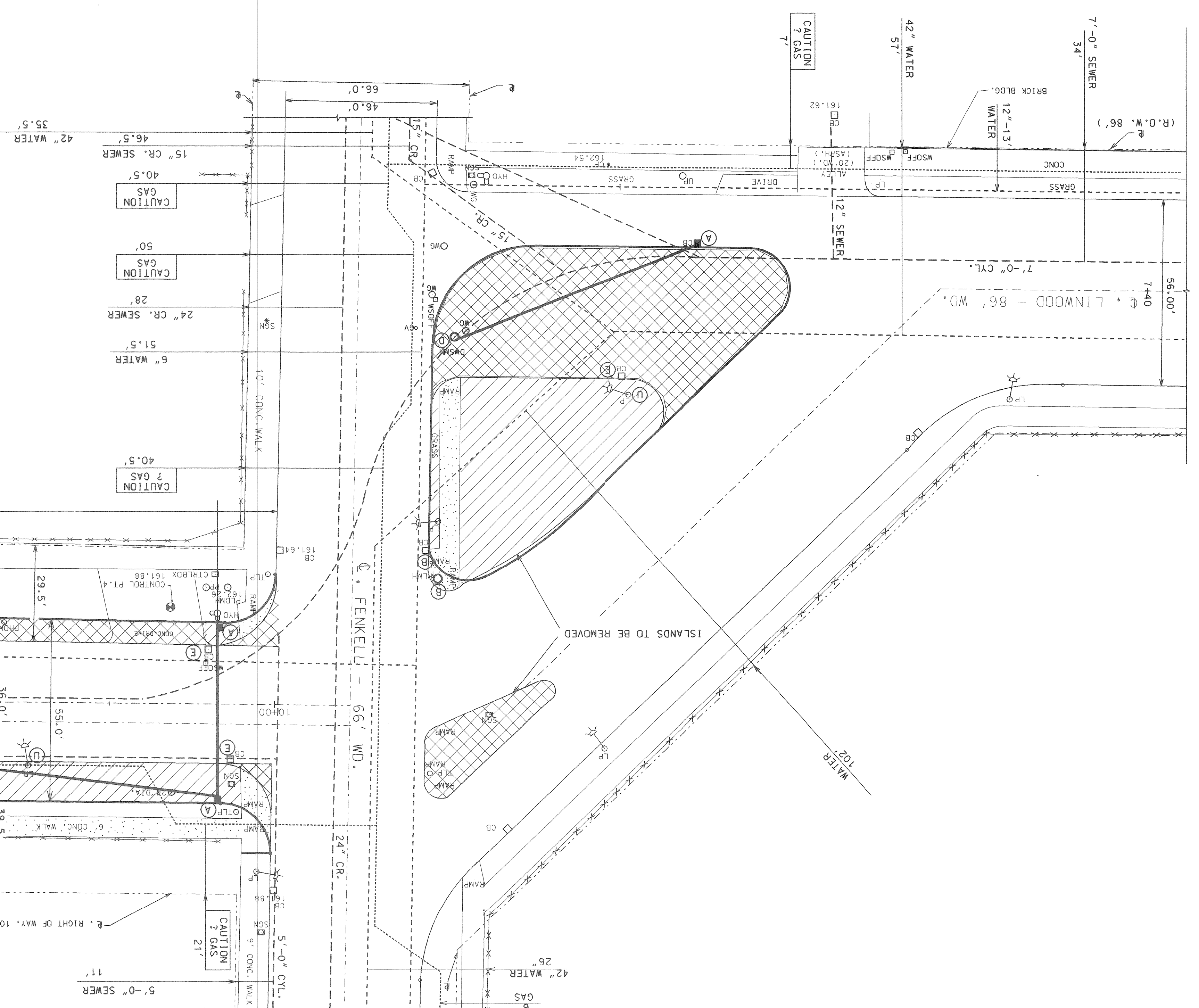




REVISIONS DESCRIPTION NO. DATE BY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		PLAN J. Jacob BR CHECKED BY APPROVED BY  ENGINEER OF STREETS CITY OF DETROIT	DEPARTMENT OF PUBLIC WORKS CITY ENGINEERING DIVISION BUREAU OF STREETS AND HIGHWAYS DESIGN	UTILITY & REMOVAL PLAN WIDENING OF LINWOOD BETWEEN FENKELL AND LODGE FWY. SOUTH SERVICE DR. & RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL NO. : 02-19-24 DATE : JULY, 2003
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UTILITY & REMOVAL PLAN

SCALE: 1" = 20'-0"



PAY ITEMS	EST. QUANTITY
TREE REM., 8 INCH TO 18 INCH	1 Each.
DR. STRUCTURE, ABANDON	4 Each.
CURB, REM, MODIFIED	1400 Foot
MASONRY AND CONC. STRUCTURE REM.	15 Cubic Yard
PAVT., REM, MODIFIED	800 Square Yard
SIDEWALK, REM.	200 Square Yard
EXCAVATION, EARTH	420 Cubic Yard

QUANTITIES

FOR REMOVAL LEGEND, SEE SHT. 5 OF 39

SEWER LINE  
 GAS LINE  
 WATER LINE  
 DETROIT EDISON

MATCH LINE STA. 12+75.00 (SHT. 5 OF 39)

SCALE	HORIZONTAL	VERTICAL
BOOK	NO.	PC.
DATE	LEAF	

BENCH MARKS ELEV.

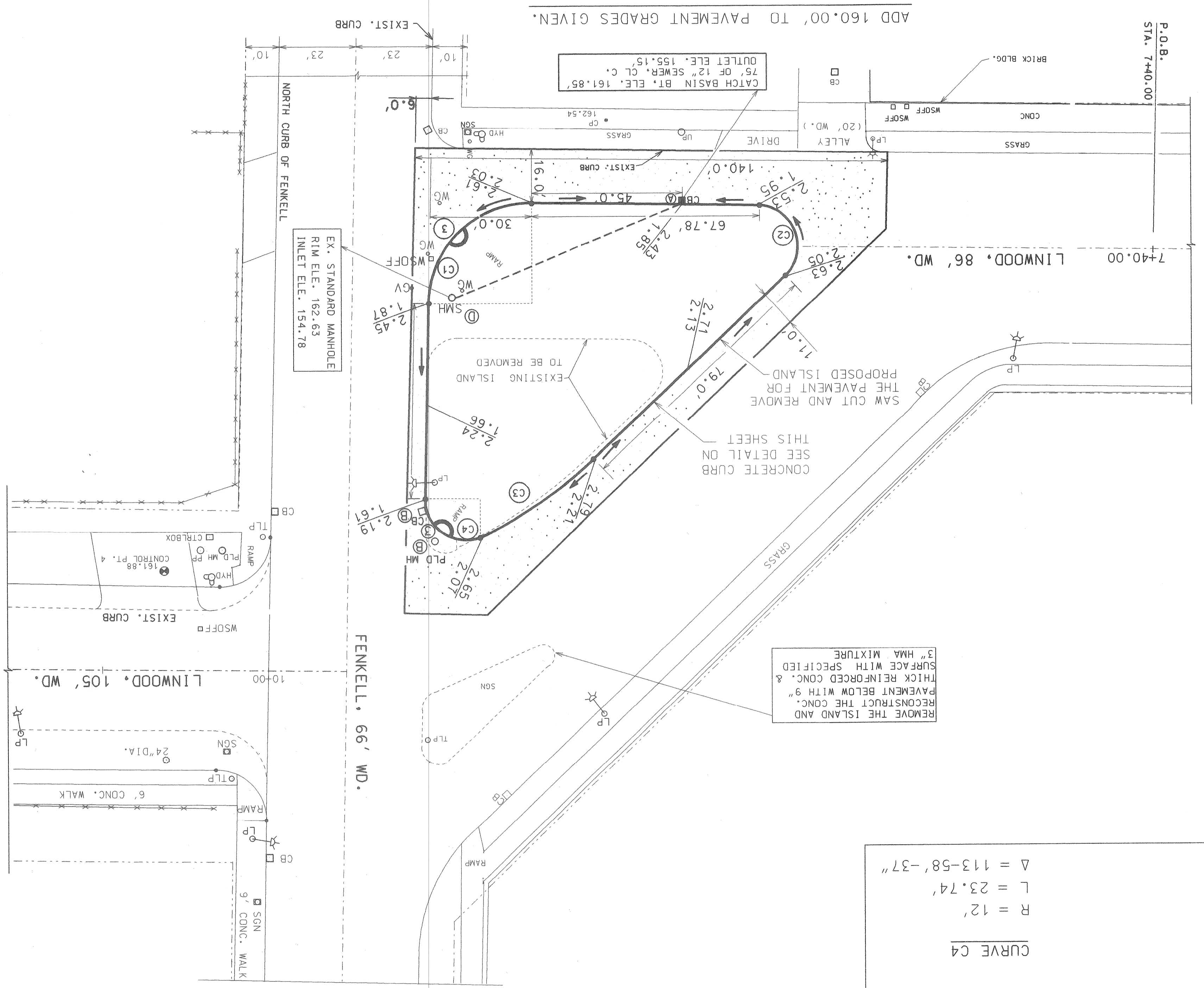






## DETAILS OF PROPOSED ISLAND

SCALE: 1" = 20'-0"



CURVE C1		CURVE C2		CURVE C3		CURVE C4	
R = 30'	L = 47.12'	R = 125'	L = 23.74'	Δ = 89-59'-24"	Δ = 18-43'-27"	R = 12'	L = 27.52'
Δ = 131-23'-53"	Δ = 113-58'-37"						

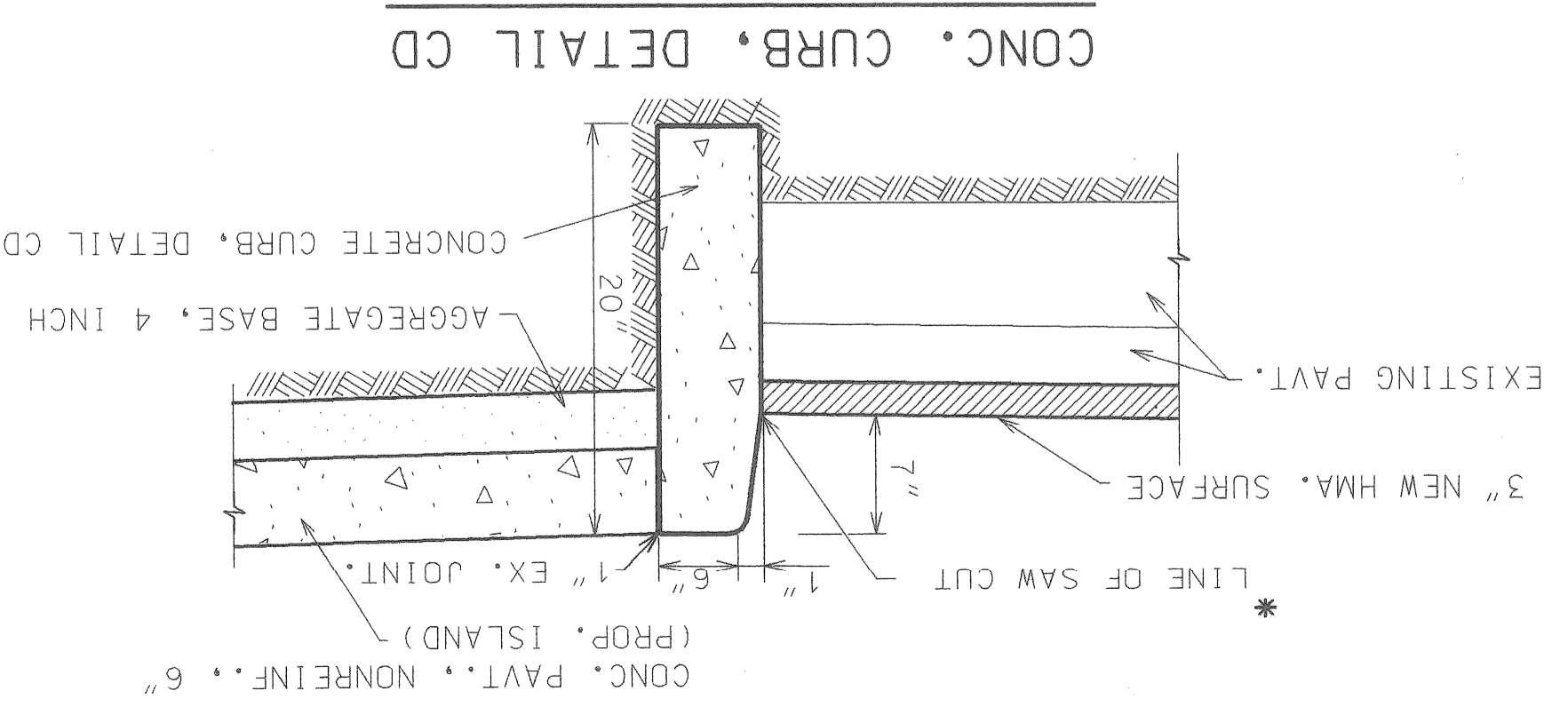
SEE SHEET NO. 7 OF 39 FOR BENCH MARKS  
SEE SHEET NO. 38 & 39 OF 39 FOR SUMMARY OF QUANTITIES

- LEGEND - ISLAND RECONSTRUCTION**
- PROPOSED ISLAND, CONC. PAVT., NONREINF., 6 INCH WITH " CONCRETE CURB, DETAIL CD"
  - COLD MILLING HMA SURFACE, MODIFIED
  - CATCH BASIN CONSTRUCTION
  - DRAINAGE STRUCTURE ADJUSTMENT
  - DRAINAGE STRUCTURE RECONSTRUCTION
  - SIDEWALK RAMP (TYPE 3)

**QUANTITIES**

1000 SQUARE YARD	AGGREGATE BASE, 4 INCH	48 TON
600 SQUARE YARD	COLD MILLING HMA SURFACE, MODIFIED	50 TON
1000 SQUARE YARD	CONC. PAVT., NONREINF., 6 INCH, MODIFIED	350 FOOT
350 FOOT	CONCRETE CURB, DETAIL CD, MODIFIED	HMA, 3C
50 TON		HMA, 4C
48 TON		

\* SAW CUTTING REQUIRED FOR THE PROP. ISLAND WILL BE INCLUDED IN THE PAY ITEM "PAVT., REM. - MODIFIED" AND WILL NOT BE PAID SEPARATELY.



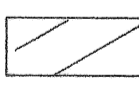






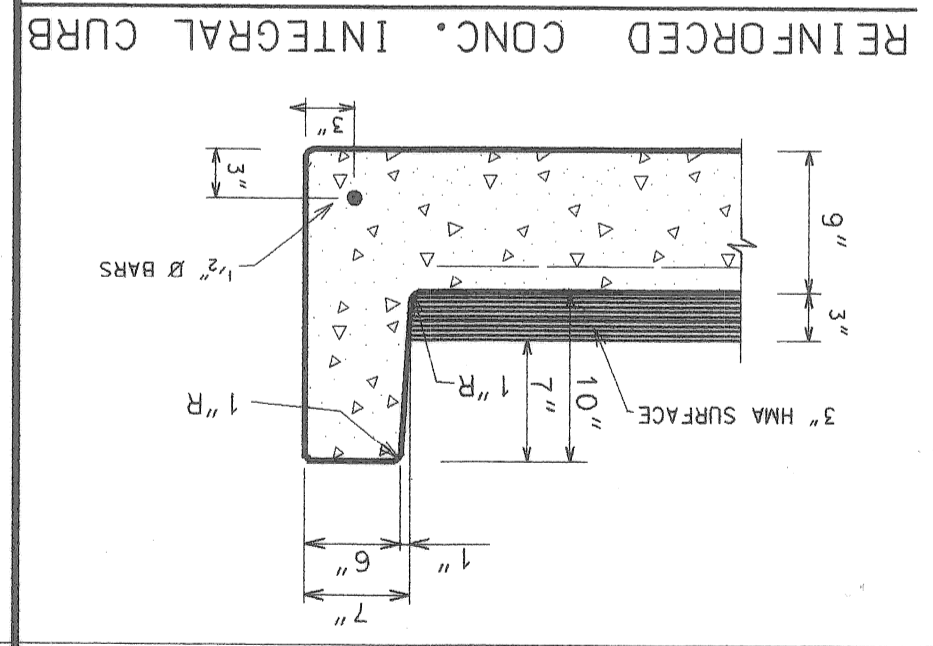
SCALE	HORIZONTAL	VERTICAL
BOOK	NO.	PG.
LEVEL	DATE	BY
BEFORE STARTING CONSTRUCTION		
CHECK WITH UTILITY FOR LOCATION OF EXISTING		
STRUCTURES WHETHER OR NOT SHOWN ON PLAN		

**BENCH MARKS**

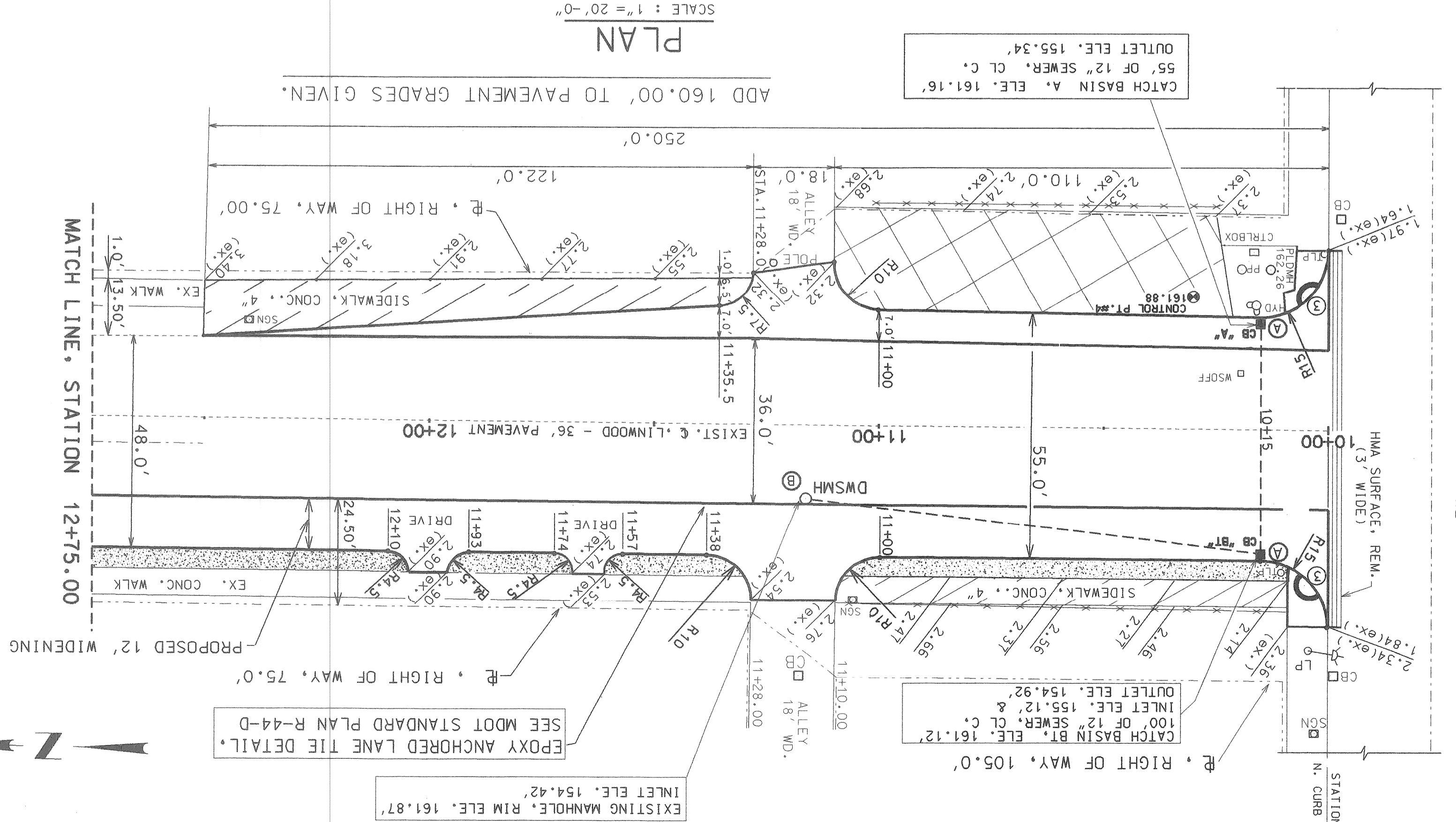
DESCRIPTION	ELEVATION
1. PBM 25-253, NE CORNER OF FENKELL & ALDEN.....	162.675
2. PBM 25-253A, NE CORNER OF FENKELL & PRINCETON.....	162.715
3. CBM #5 CUT CROSS, SE CORNER OF FENKELL & LINWOOD.....	162.535
4. CBM #4 CUT CROSS, NE CORNER OF FENKELL & LINWOOD.....	161.875
5. CBM #3 CUT CROSS, AT #15356 LINWOOD.....	164.305
6. CBM #2 CUT CROSS, NW CORNER OF LODGE E.B.S.D.R. & LINWOOD.....	165.525
7. CBM #1 CUT CROSS, SW CORNER OF LODGE W.B.S.D.R. & LINWOOD.....	165.055
8. CBM T.P., SW CORNER OF LODGE FWY. & LINWOOD.....	164.085
9. CBM T.P., NW CORNER OF FENKELL & LINWOOD.....	162.270

**LEGEND**

-  SIDEWALK, CONC., 4 INCH
-  SODDING
-  REINF. CONC. BASE PAVT.
-  SIDEWALK RAMP (TYPE 3)
-  CONC. PAVT., NONREINF., 6 INCH

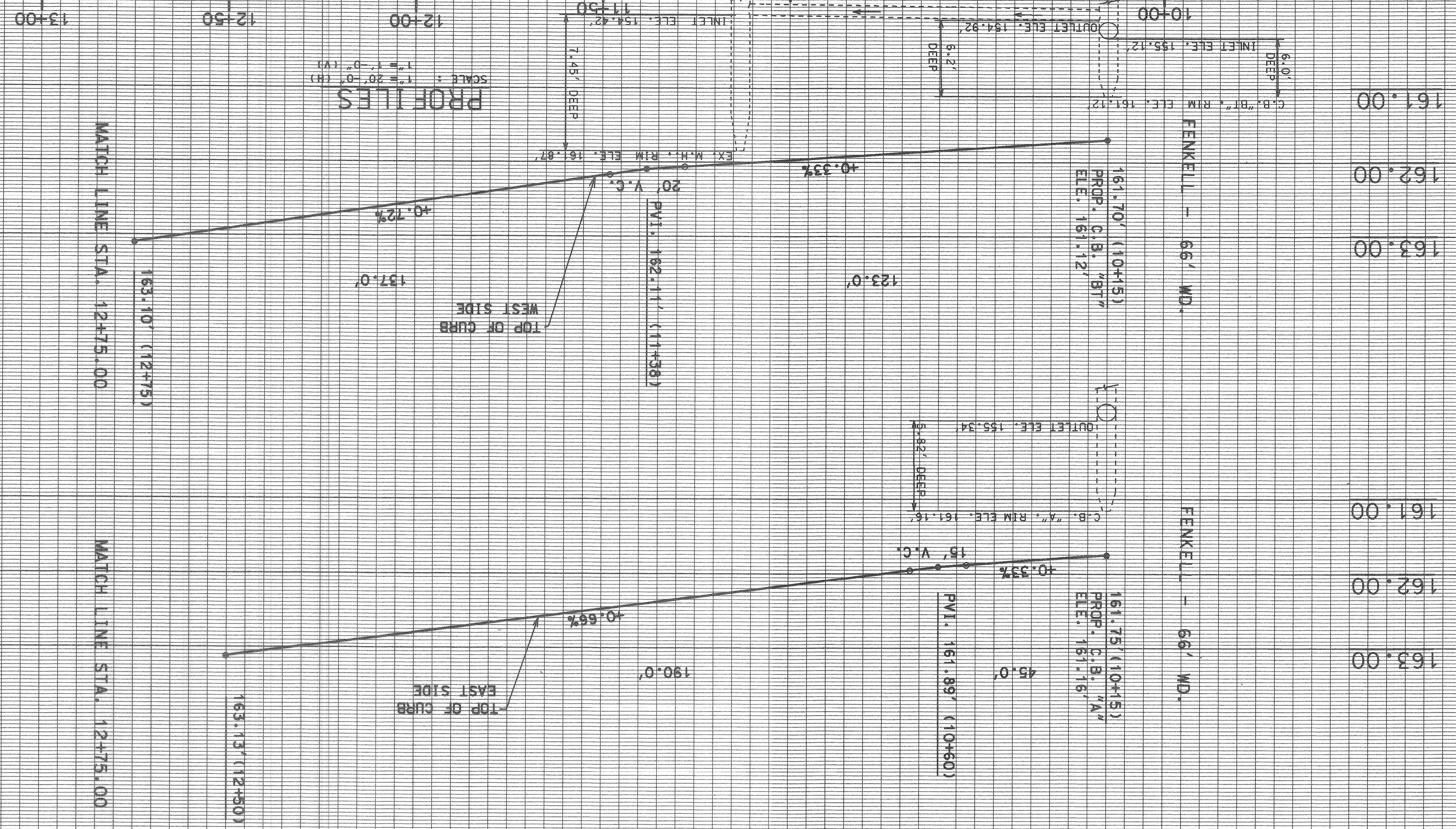


SEE SHEET NO. 3 OF 39 FOR TYPICAL SECTION  
SEE SHEET NO. 38 & 39 OF 39 FOR SUMMARY OF QUANTITIES



**PLAN**

SCALE: 1" = 20'-0"



**PROFILES**

SCALE: 1" = 20'-0" (H)

DATE: JULY, 2003	NO. 02-19-24	ASSIGNMENT	NO. 02-19-24
SHEET 7 OF 39 SHEETS	CONTRACT	DR. & RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL	NO.
NO.	NO.	NO.	NO.

WIDENING OF LINWOOD BETWEEN FENKELL AND LODGE FWY. SOUTH SERVICE  
PLAN & PROFILE

CITY OF DETROIT  
DEPARTMENT OF PUBLIC WORKS  
CITY ENGINEERING DIVISION  
BUREAU OF STREETS AND HIGHWAYS DESIGN

APPROVED BY: *Wm. Kelly*  
ENGINEER OF STREETS  
J. JACOB  
J. JACOB  
ESTIMATE  
J. JACOB  
FINAL

REVISIONS	DESCRIPTION



REVISIONS

DESCRIPTION

DATE

BY

APPROVED

CHECKED BY

DATE

BY

APPROVED

FINAL

ESTIMATE

GRADE

PLAN

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

J. JACOB

APPROVED

ENGINEER OF STREETS

HEAD ENGINEER

CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS

CITY ENGINEERING DIVISION

BUREAU OF STREETS AND HIGHWAYS DESIGN

DATE

NO.

ASSIGNMENT

CONTRACT

SHEET 8 OF 39 SHEETS

DR. & RECONSTRUCTION OF ISLAND TO REALIGN LINWOOD SOUTH OF FENKELL

WIDENING OF LINWOOD BETWEEN FENKELL AND LODGE FWY. SOUTH SERVICE

PLAN & PROFILE

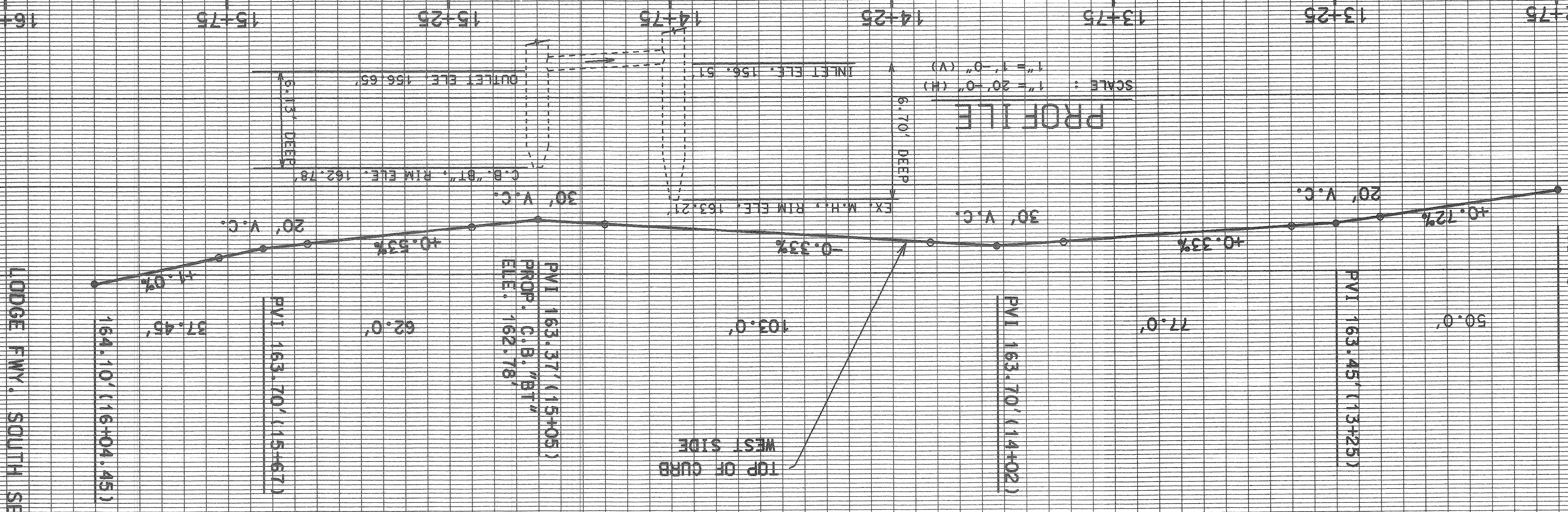
DATE: JULY, 2003

162.00  
163.00  
164.00

MATCH LINE STA. 12+75.00  
163.10' (12+75)

PROFILE

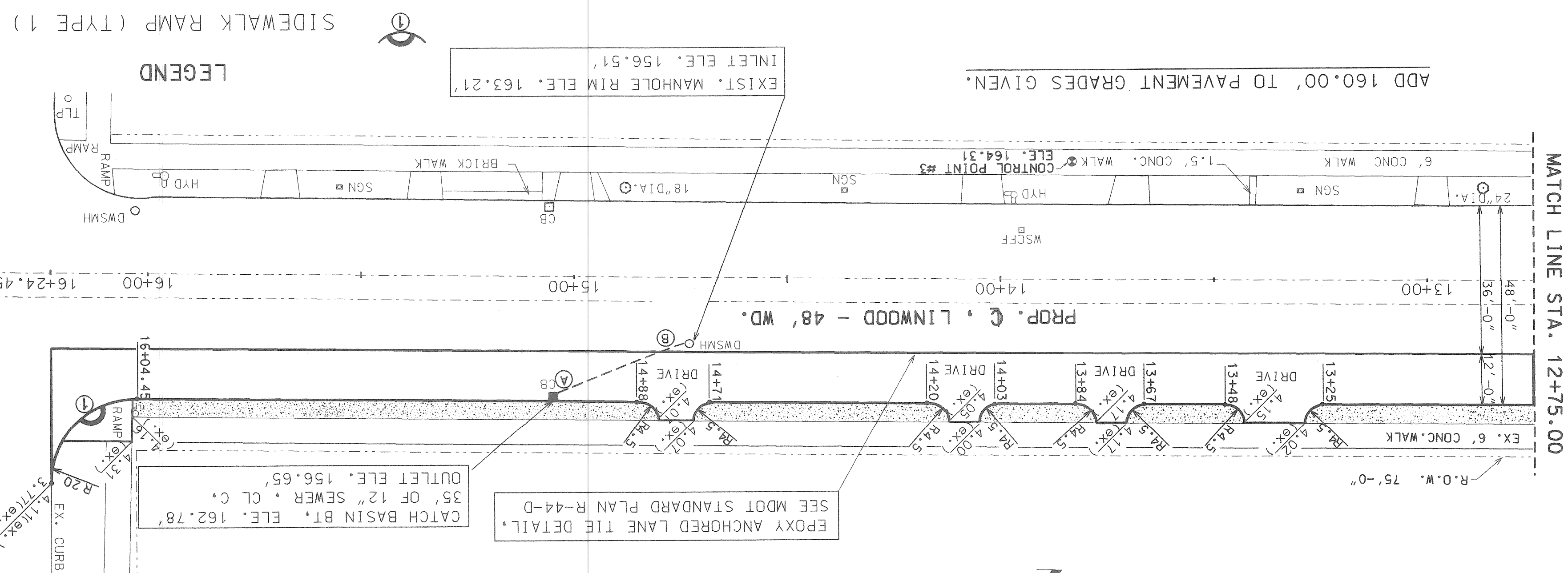
SCALE: 1" = 20'-0" (H)  
1" = 1'-0" (V)



LODGE FWY. SOUTH SERVICE DR.

PLAN

SCALE: 1" = 20'-0"



LODGE FWY. SOUTH SERVICE DR.

LEGEND  
REIN. CONC. BASE PAVT.  
SODDING  
SIDEWALK RAMP (TYPE 1)

SEE SHEET NO. 3 OF 39 FOR TYPICAL SECTION  
SEE SHEET NO. 7 OF 39 FOR BENCH MARKS  
SEE SHEET NO. 38 & 39 OF 39 FOR SUMMARY OF QUANTITIES

QUANTITIES

Table with 2 columns: EST. QUANTITY and PAY ITEMS. Lists various construction items and their estimated quantities.

Table with 2 columns: SCALE (HORIZONTAL, VERTICAL) and BOOK NO. (DATE, PG.).

BEFORE STARTING CONSTRUCTION CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.



NO.# C-035  
 DATE: 1-26-2001  
 SCALE: 1" = 30'

LINWOOD  
 FENKELL TO LODGE

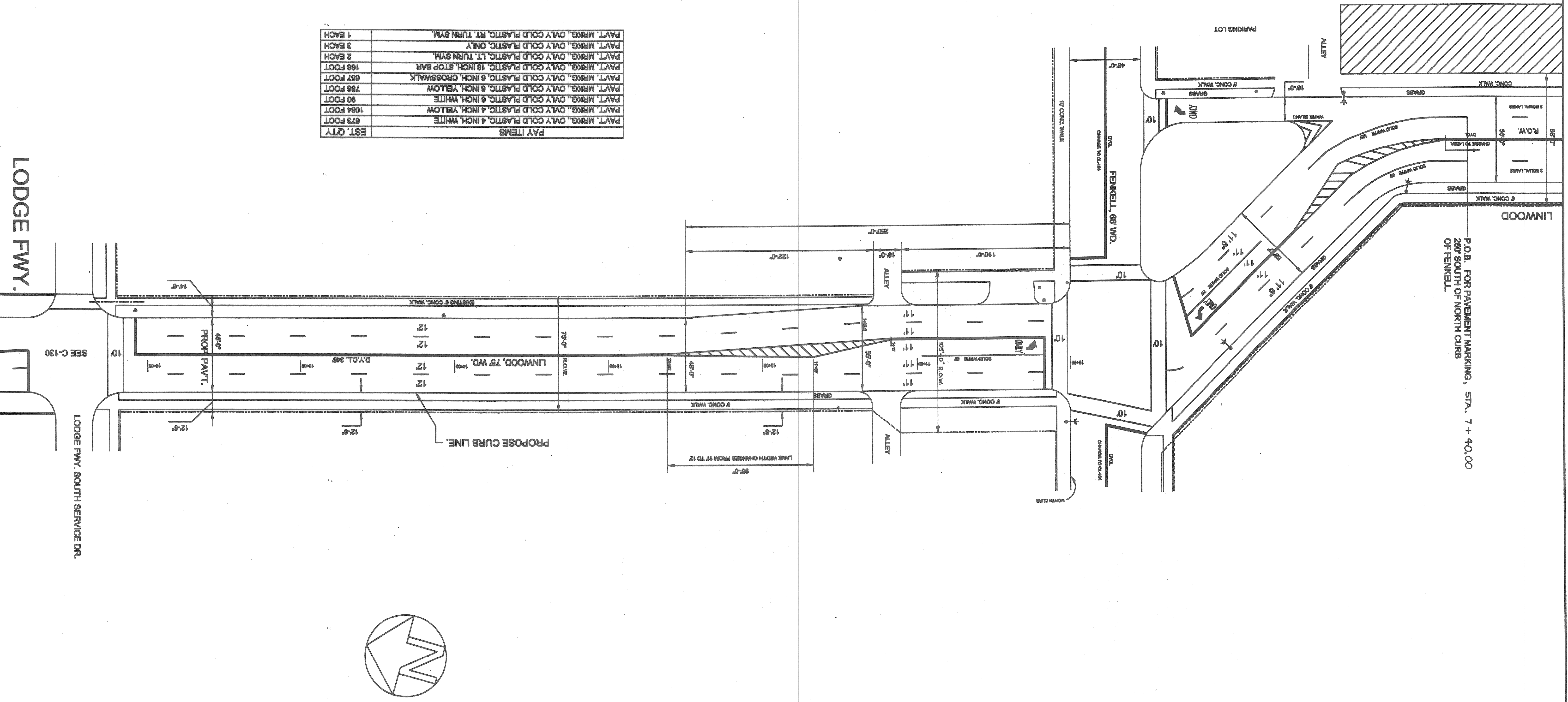
DESIGNED BY: E. LOUYA  
 DRAWN: J. LAPPIN  
 TRACED BY:  
 CHECKED BY: E. LOUYA

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 TRAFFIC ENGINEERING DIVISION

REV. DATE: 7-10-2003  
 REV. DATE: 3-12-2003  
 REV. DATE: 3-10-2003  
 REV. DATE: 5-15-2002

PAVEMENT MARKING PLAN  
 SCALE 1" = 30'-0"

PAY ITEMS	EST. QTY
PAVT. MRKG., O.VLY COLD PLASTIC, 4 INCH, WHITE	673 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, 4 INCH, YELLOW	1064 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, 6 INCH, WHITE	80 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, 6 INCH, YELLOW	786 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, 8 INCH, CROSSWALK	667 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, 18 INCH, STOP BAR	166 FOOT
PAVT. MRKG., O.VLY COLD PLASTIC, LT. TURN SYM.	2 EACH
PAVT. MRKG., O.VLY COLD PLASTIC, ONLY	3 EACH
PAVT. MRKG., O.VLY COLD PLASTIC, RT. TURN SYM.	1 EACH



P.O.B. FOR PAVEMENT MARKING, STA. 7 + 40.00  
 260' SOUTH OF NORTH CURB  
 OF FENKELL

LODGE FWY.

LODGE FWY. SOUTH SERVICE DR.

SEE C-130



DATE	DESCRIPTION	CHECKED BY

# WIDENING OF LINWOOD BETWEEN FENKELL AND LODGE FWY. SOUTH SERVICE DR. & RECONSTRUCTION OF ISLAND TO RE-ALIGN LINWOOD SOUTH OF FENKELL

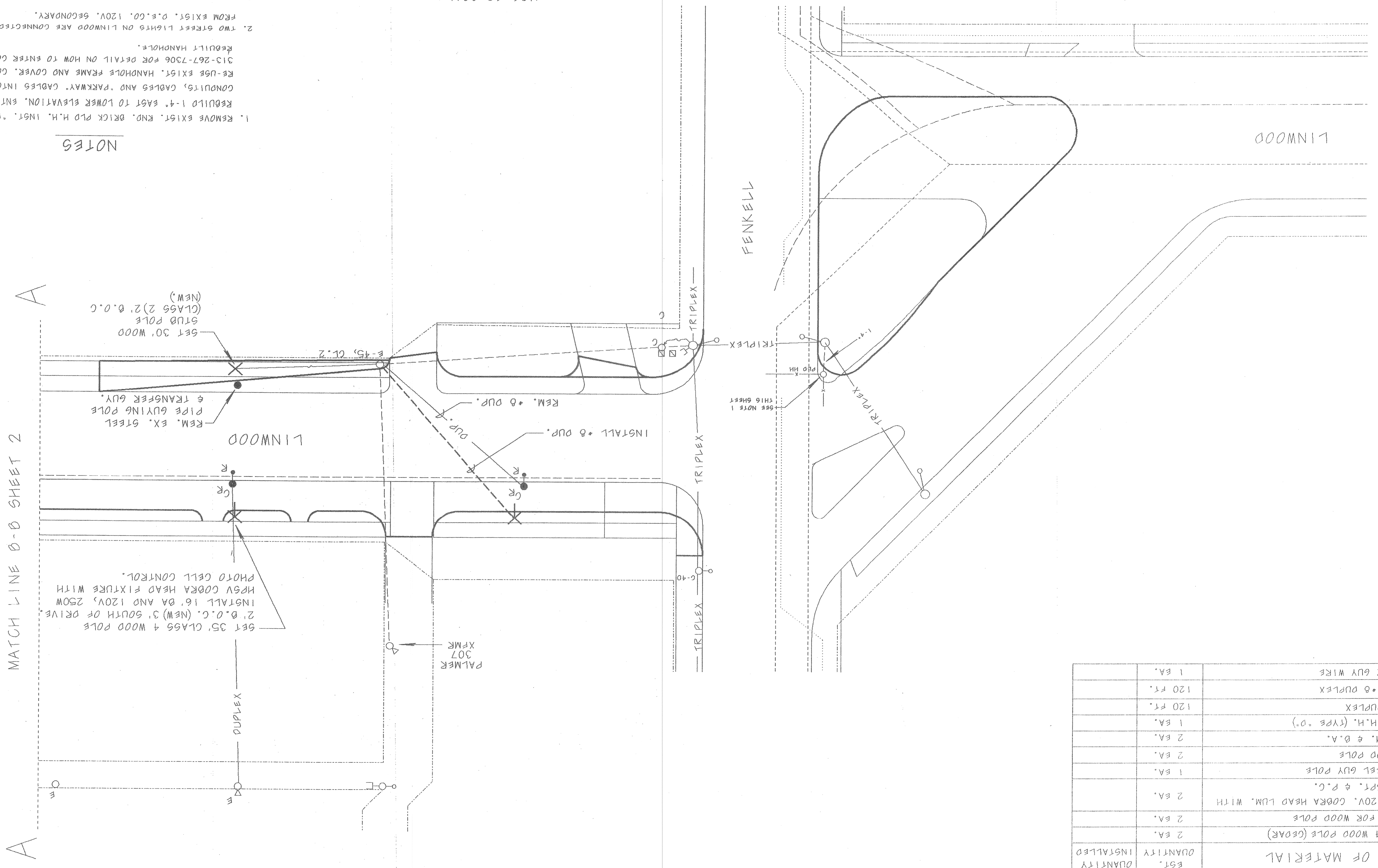
PUBLIC LIGHTING DEPARTMENT  
 CITY OF DETROIT  
 SHEET NO. 1 OF 2  
 DATE APRIL 22, 03  
 FILE NO. 49-0622  
 DRAWN BY T. BONNER  
 CHECKED BY M.L.

SHEET NO. 1 OF 39

1. REMOVE EXIST. RND. DRICK PLO H.H. INGT. 0"-TYPE H.H. REDUILD 1-4" EAST TO LOWER ELEVATION. ENTER EXIST. CONDUITS, CABLES AND PARKWAY CABLES INTO NEW HANDHOLE. RE-USE EXIST. HANDHOLE FRAME AND COVER. CONTACT M. LASKOWSKI 313-267-7306 FOR DETAIL ON HOW TO ENTER CONDUIT INTO RESULT HANDHOLE.
2. TWO STREET LIGHTS ON LINWOOD ARE CONNECTED TO AND FED FROM EXIST. P.E.CO. 120V. SECONDARY. POLES ARE SET IN EARTH.
3. ALL ELECTRICAL WORK SHALL BE DONE ACCORDING TO "CITY OF DETROIT PUBLIC LIGHTING DEPARTMENT'S (PLD) SPECIAL PROVISION FOR ELECTRICAL WORK", INCLUDED WITH THE PROPOSAL.

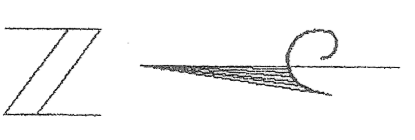
## NOTES

NOT TO SCALE



EST. QUANTITY	QUANTITY INSTALLED	LIST OF MATERIAL
2 EA.	2 EA.	35' CL. 4 WOOD POLE (CEDAR)
2 EA.	2 EA.	16' Ø.A. FOR WOOD POLE
2 EA.	2 EA.	250W, 120V. COORA HEAD LUM. WITH P.C. RCPT. & P.C.
1 EA.	1 EA.	REM. STEEL GUY POLE
2 EA.	2 EA.	REM. WOOD POLE
2 EA.	2 EA.	REM. LUM. & Ø.A.
1 EA.	1 EA.	REBUILD H.H. (TYPE "O")
120 FT.	120 FT.	REMOVE DUPLEX
120 FT.	120 FT.	INST. 1-Ø DUPLEX
1 EA.	1 EA.	TRANSFER GUY WIRE

MATCH LINE 0-0 SHEET 2







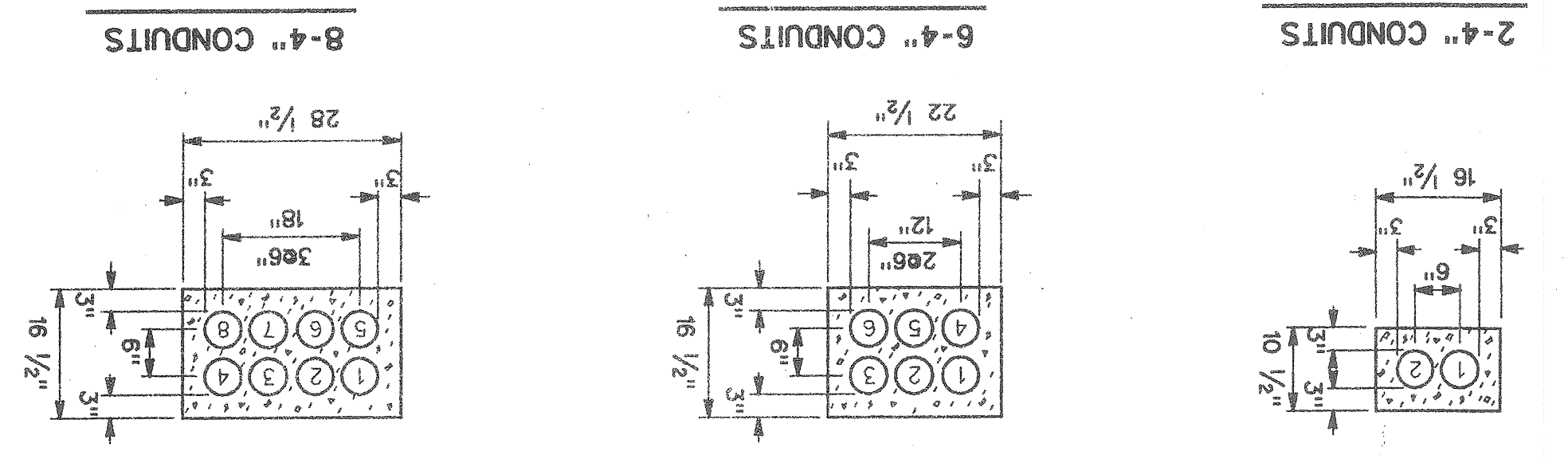


Date	Description

ENCASED CONDUIT

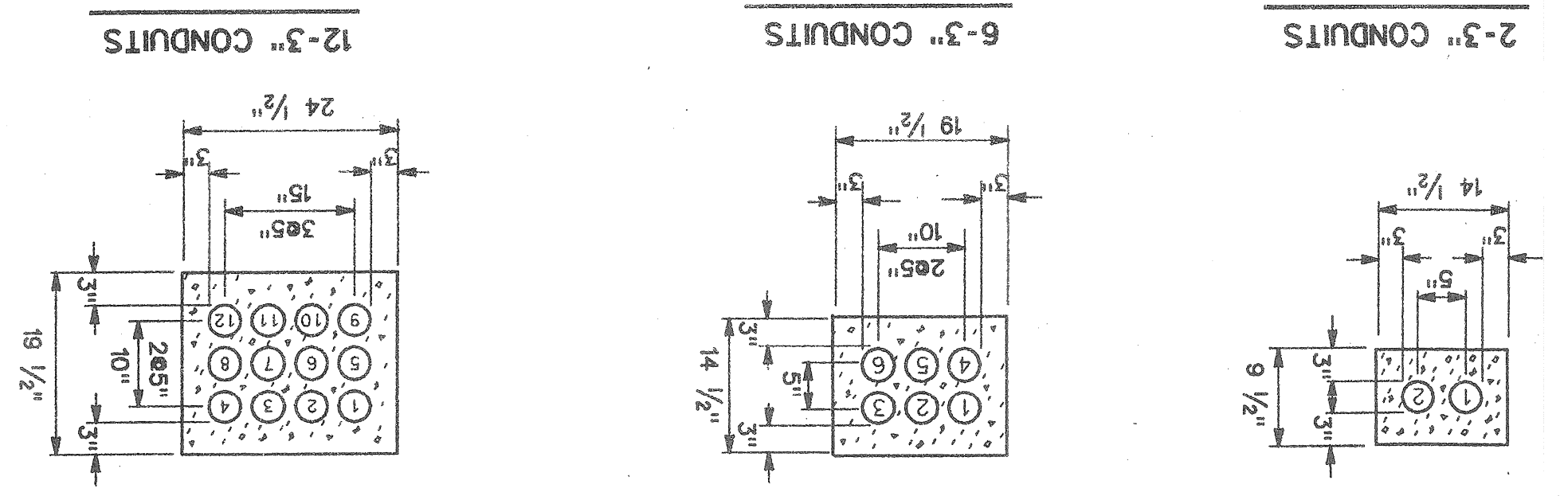
(TO BE APPROVED BY THE ENGINEER)

ALTERNATE ARRANGEMENT OF 4" CONDUIT

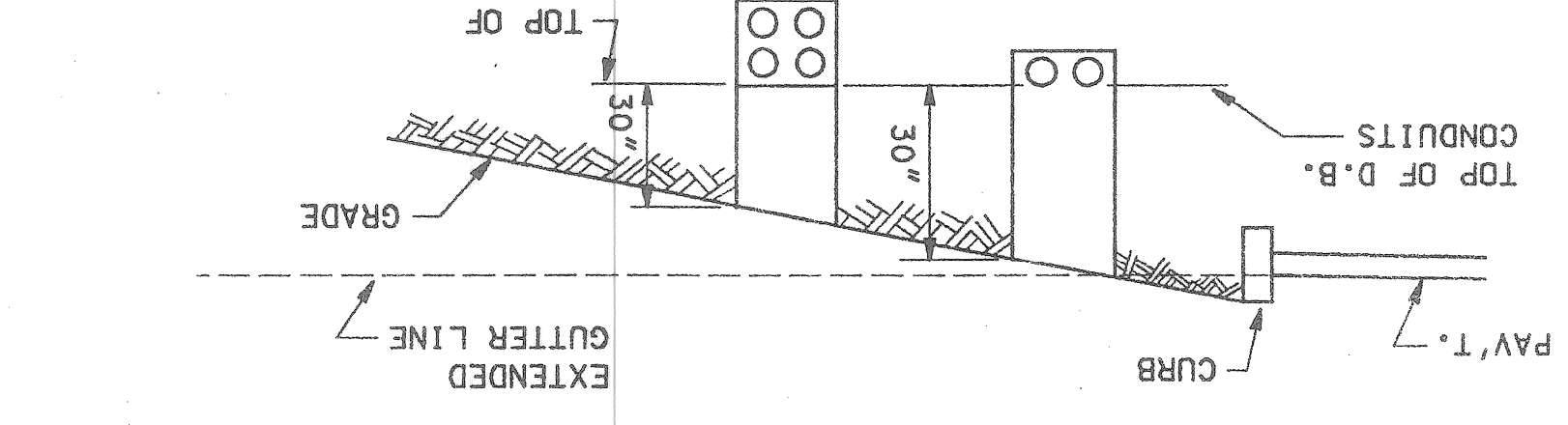


(TO BE APPROVED BY THE ENGINEER)

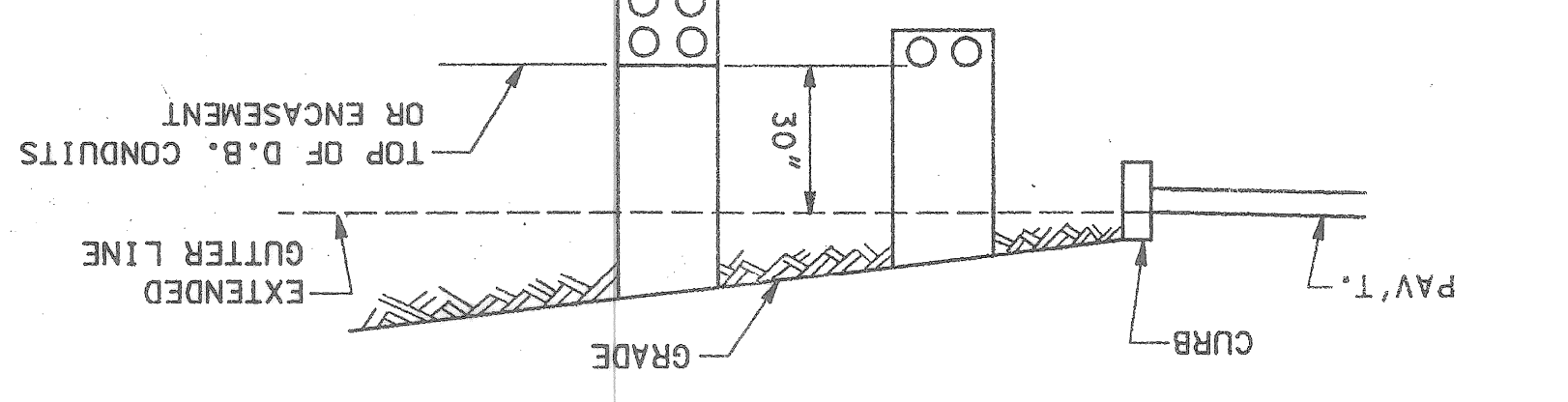
ALTERNATE ARRANGEMENT OF 3" CONDUIT



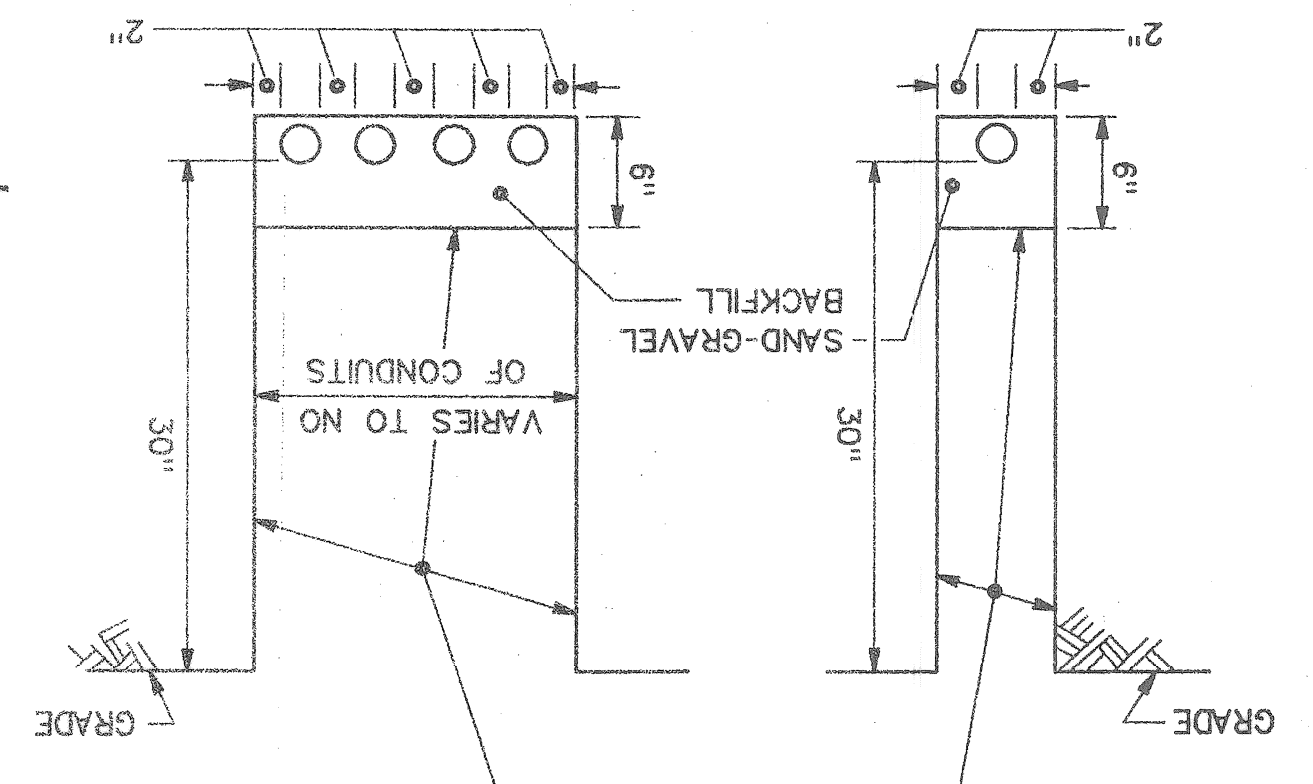
DOWNWARD GRADE



UPWARD GRADE



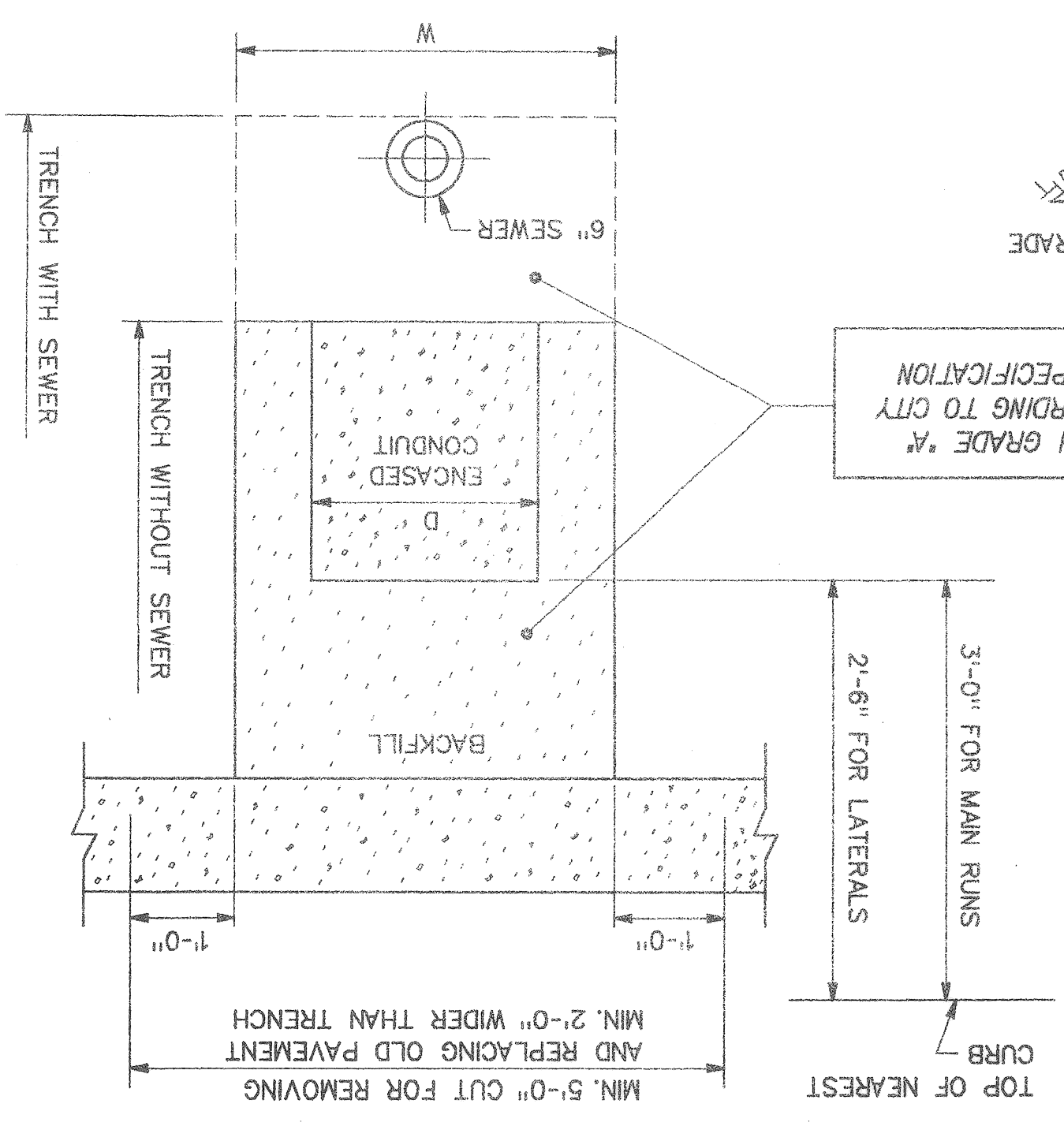
DIRECT BURIAL CONDUIT(S)



NOTE:

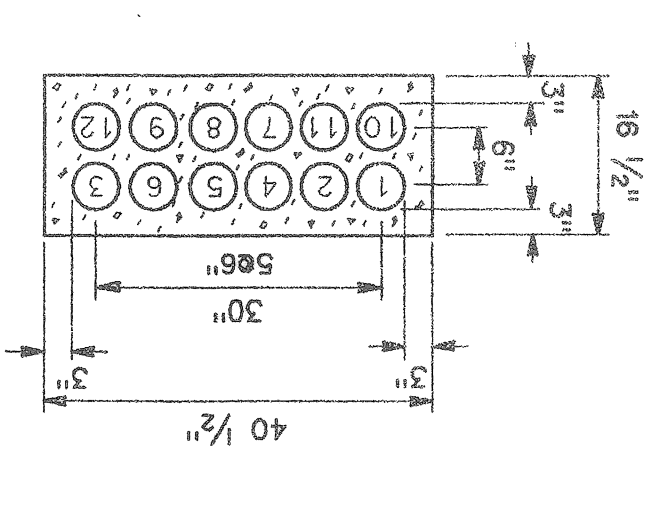
THE PREFERRED TRENCH WIDTH "W" IS THE WIDTH OF "D" OF CONDUIT ENCASEMENT.

ENCASED CONDUIT(S)

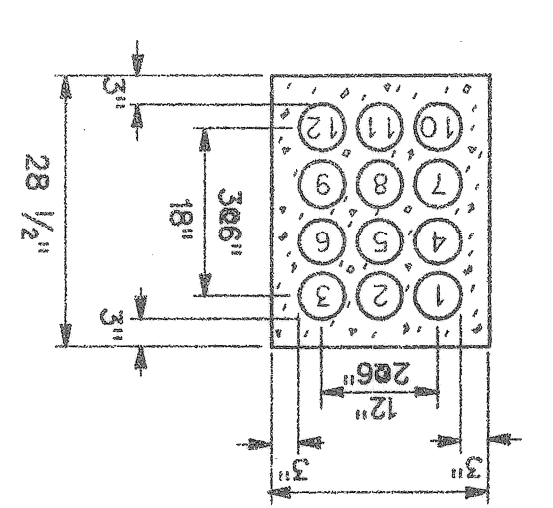


BACK FILL WITH GRADE "A" MATERIAL ACCORDING TO CITY OF DETROIT SPECIFICATION

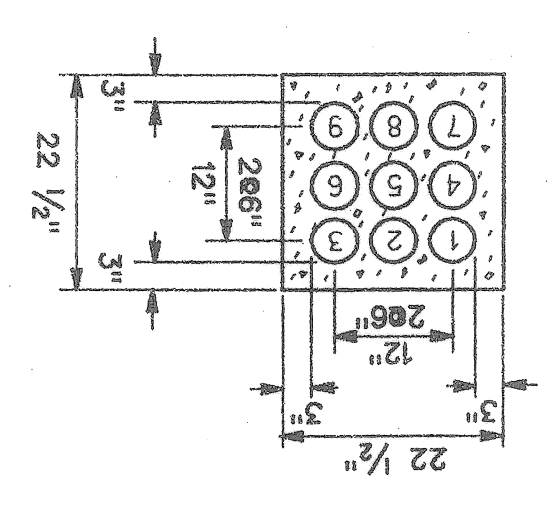
12-4" CONDUITS IN BRIDGE APPROACH



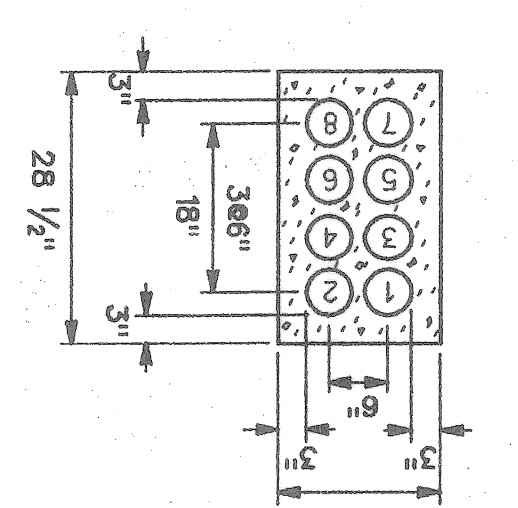
12-4" CONDUITS



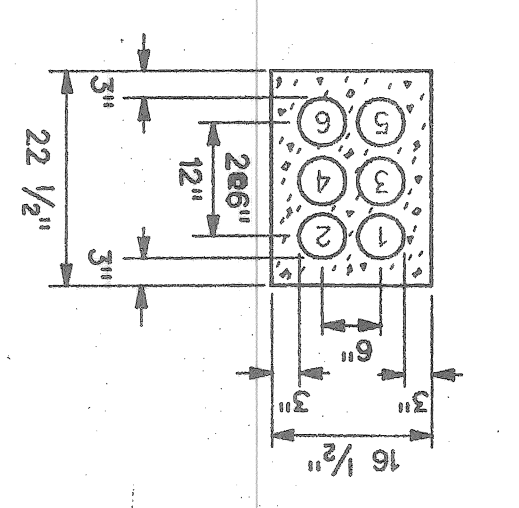
9-4" CONDUITS



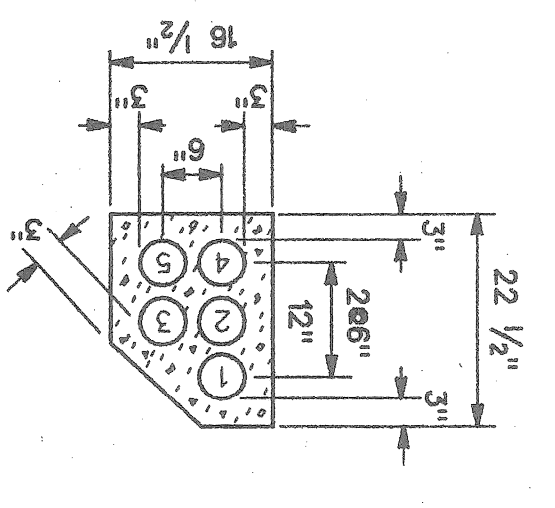
8-4" CONDUITS



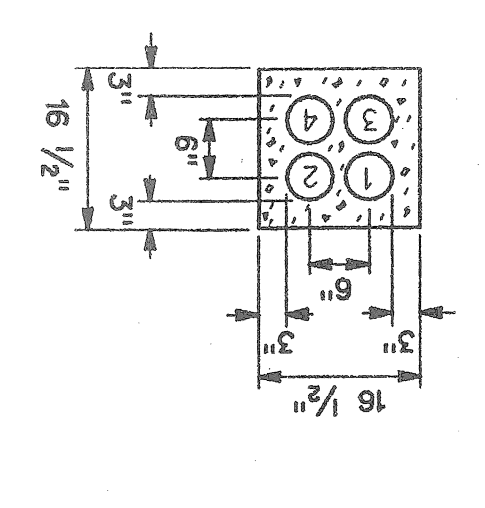
6-4" CONDUITS



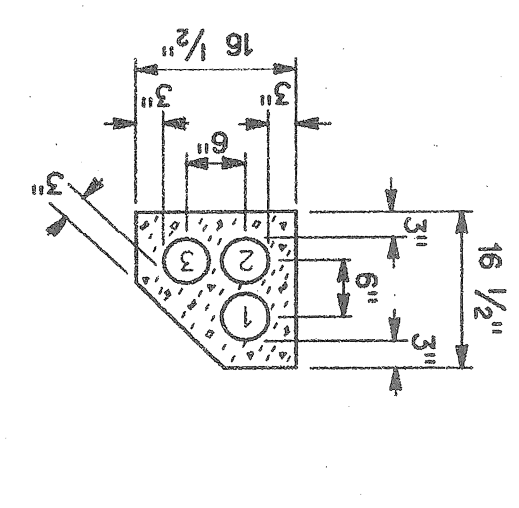
5-4" CONDUITS



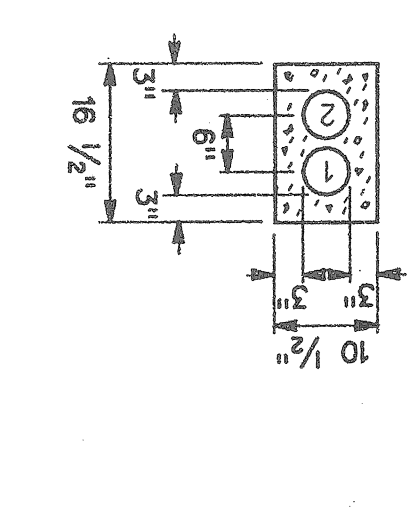
4-4" CONDUITS



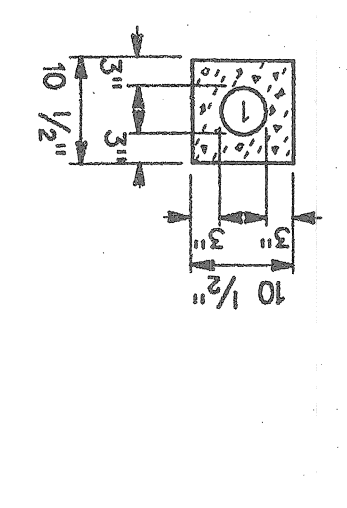
3-4" CONDUITS



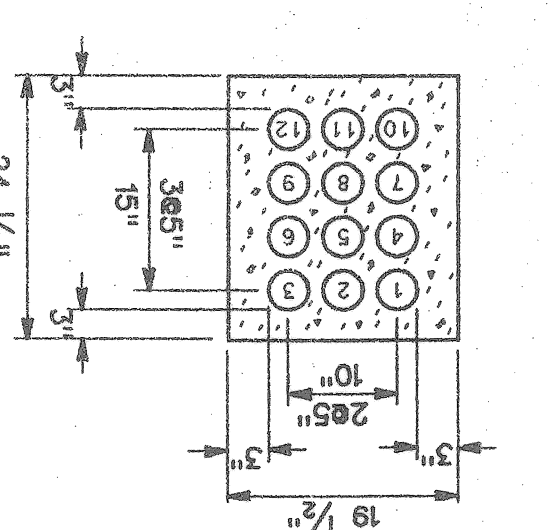
2-4" CONDUITS



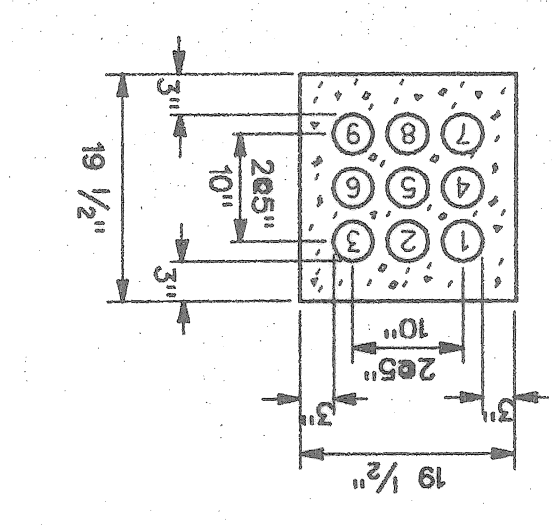
1-4" CONDUITS



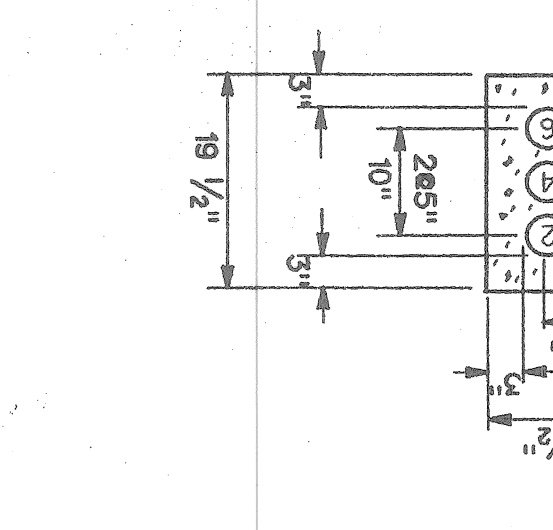
12-3" CONDUITS



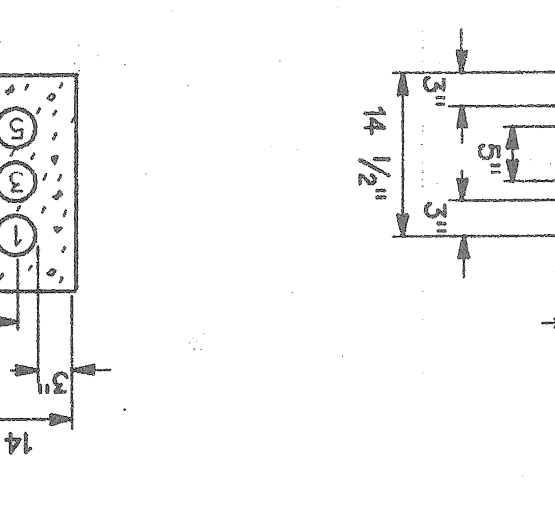
9-3" CONDUITS



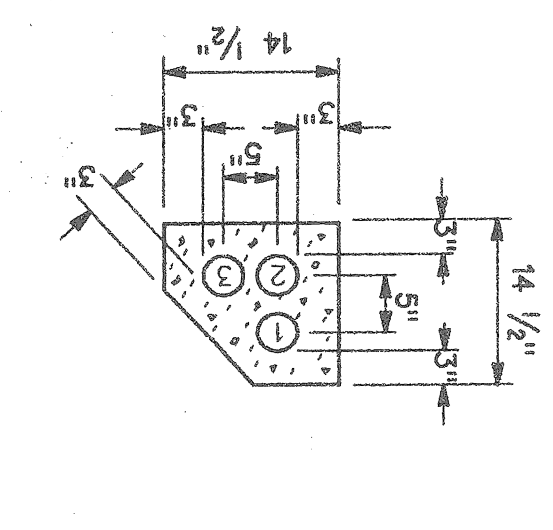
6-3" CONDUITS



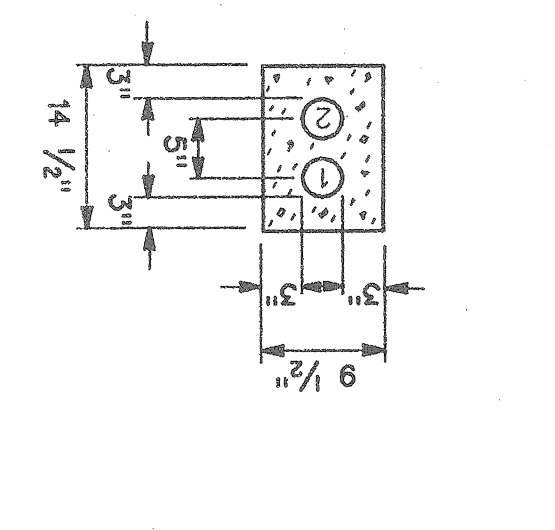
4-3" CONDUITS



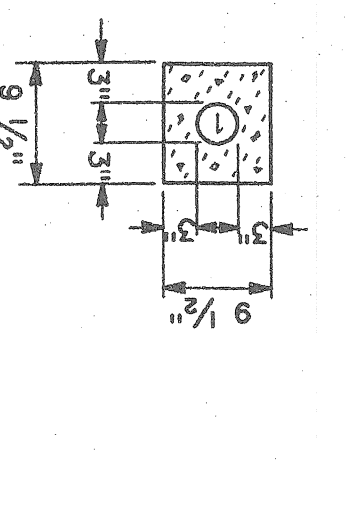
3-3" CONDUITS



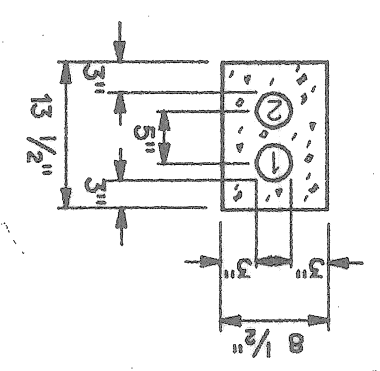
2-3" CONDUITS



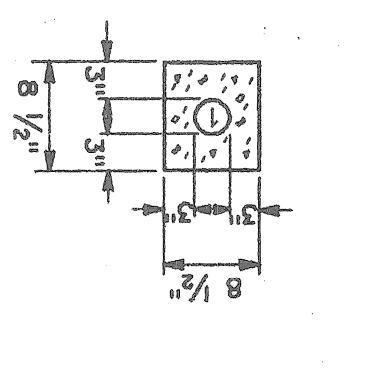
1-3" CONDUIT



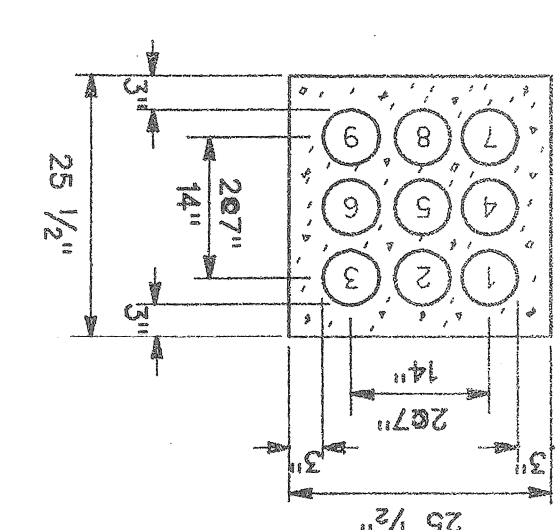
2-2" CONDUITS



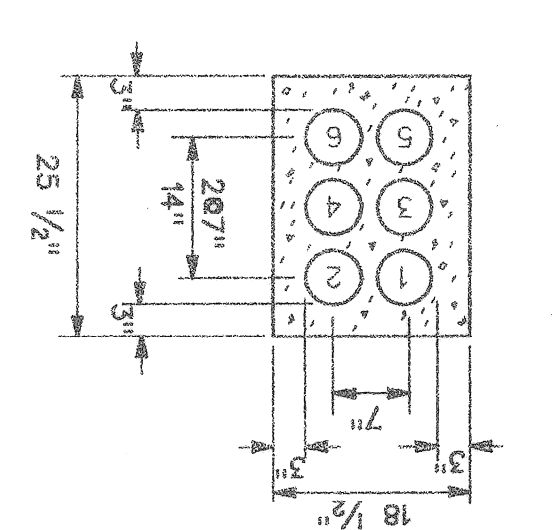
1-2" CONDUIT



9-5" CONDUITS



6-5" CONDUITS



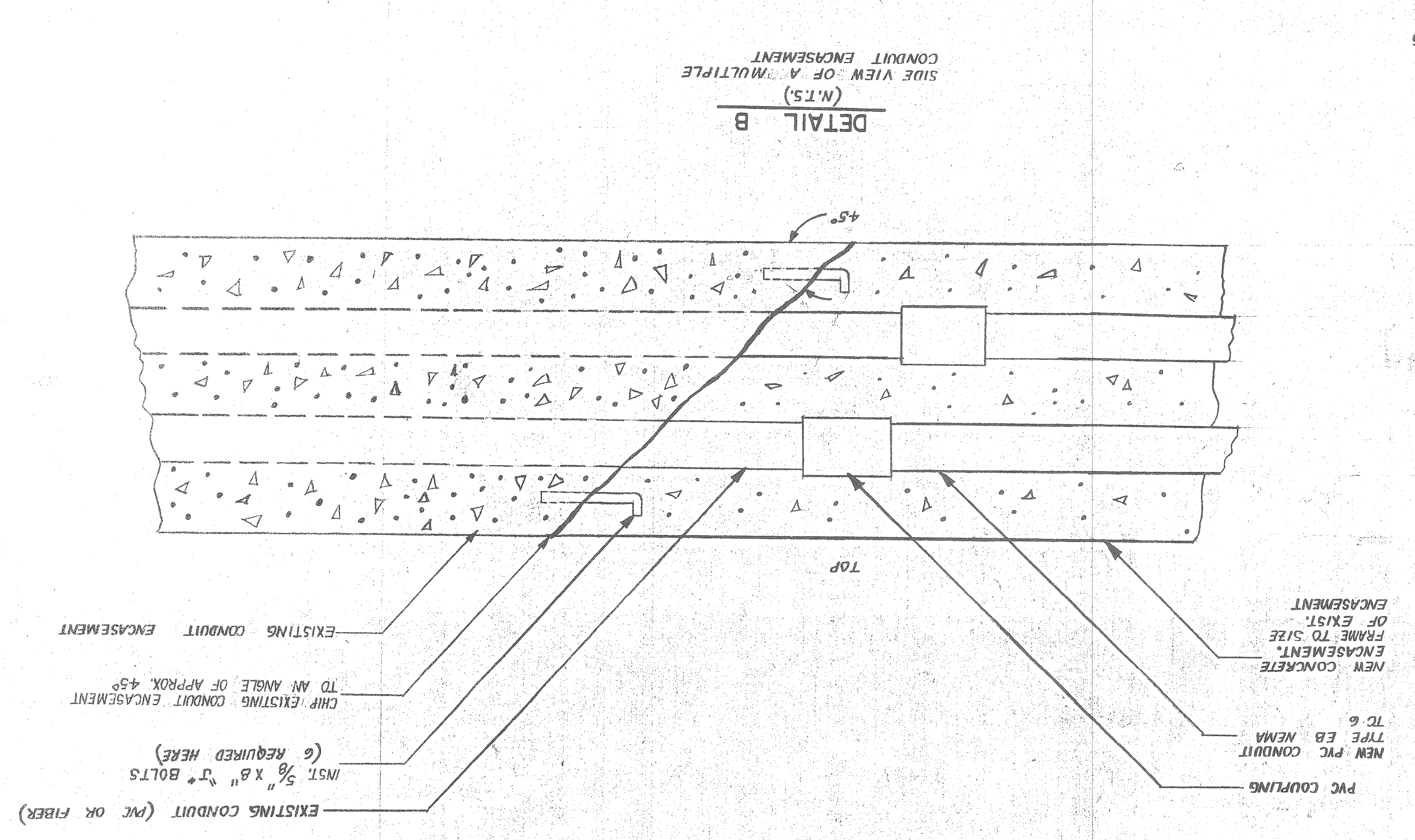


DETAIL FOR JOINING CONDUIT ENCASEMENTS

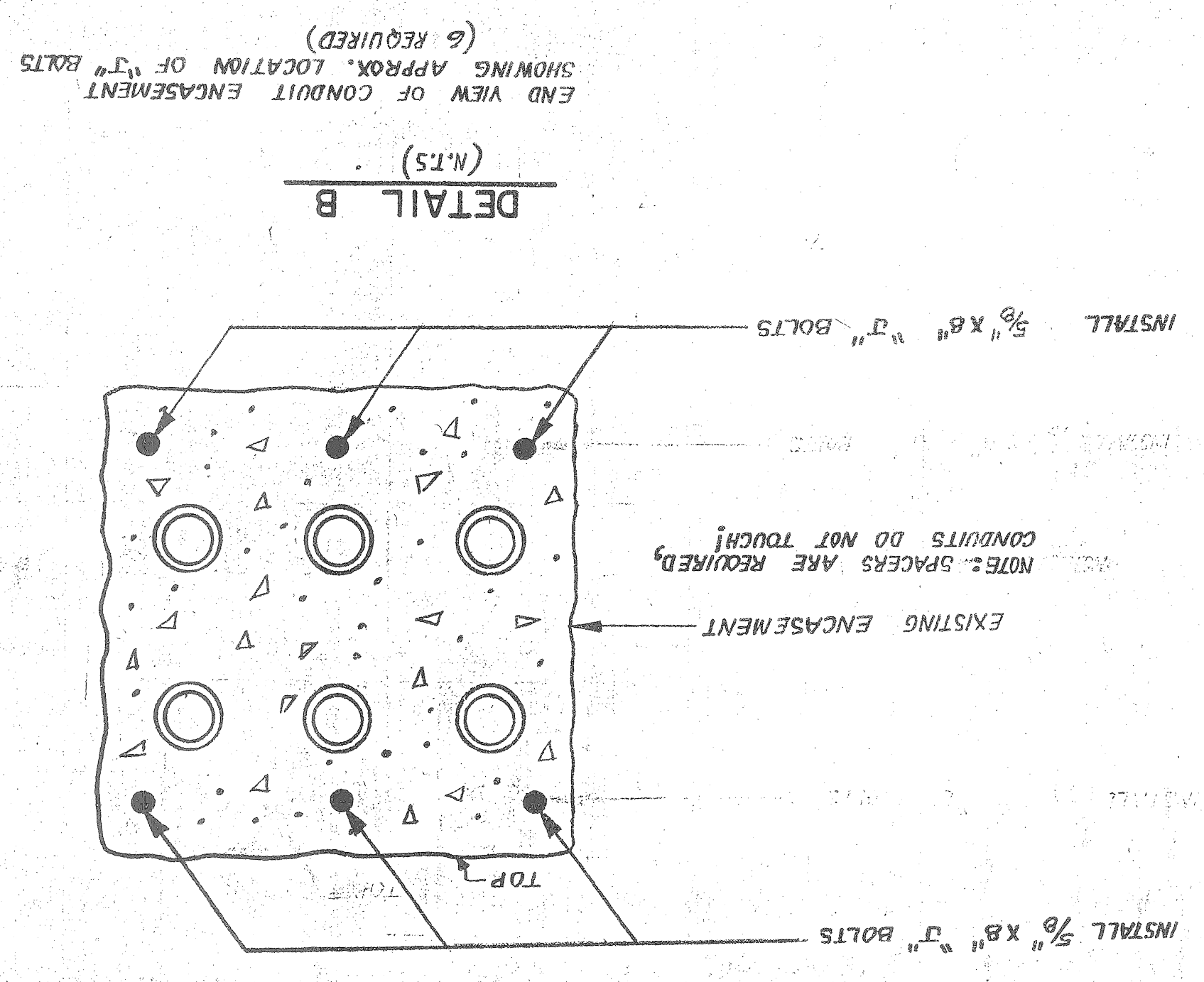
DATE	DESCRIPTION	CHD. BY

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 49-0622

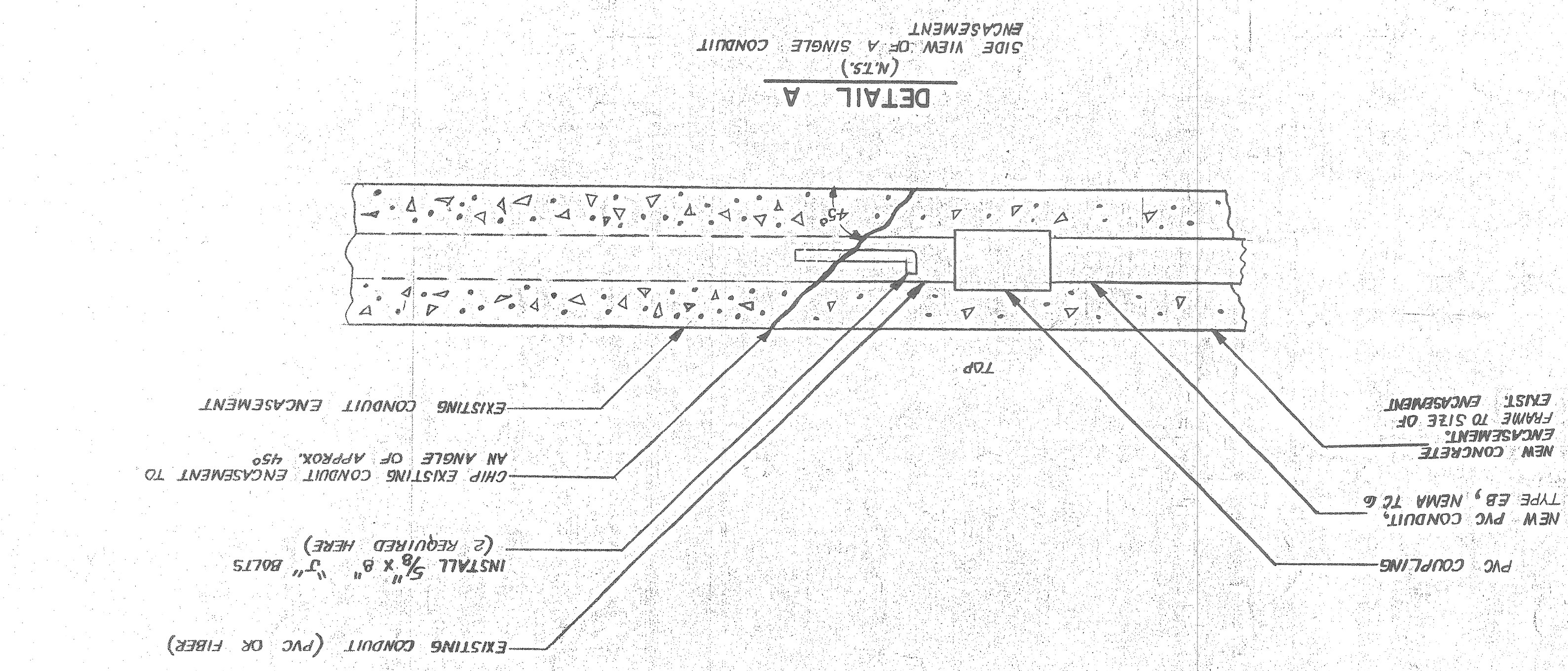
NOTE: TO TERMINATE A NEW CONDUIT BANK FOR FUTURE EXTENSION, REFERENCE P.L.D. DRAWING # 44-0308



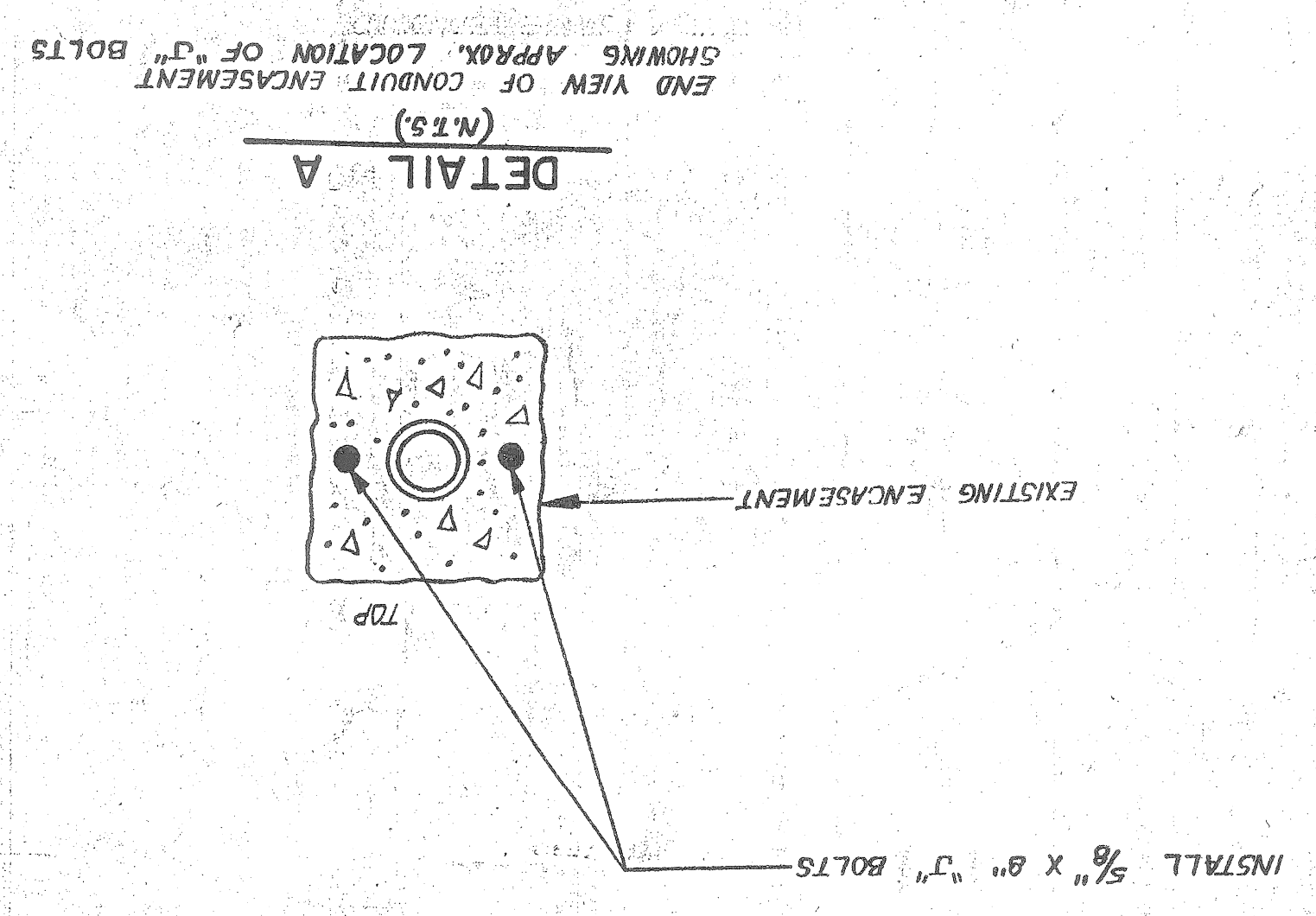
DETAIL B  
 (N.T.S.)  
 SIDE VIEW OF A MULTIPLE  
 CONDUIT ENCASEMENT



DETAIL B  
 (N.T.S.)  
 END VIEW OF CONDUIT ENCASEMENT  
 SHOWING APPROX. LOCATION OF J BOLTS  
 (6 REQUIRED)



DETAIL A  
 (N.T.S.)  
 SIDE VIEW OF A SINGLE CONDUIT  
 ENCASEMENT



DETAIL A  
 (N.T.S.)  
 END VIEW OF CONDUIT ENCASEMENT  
 SHOWING APPROX. LOCATION OF J BOLTS







Date	Description	Chkd. by

FOUNDATIONS

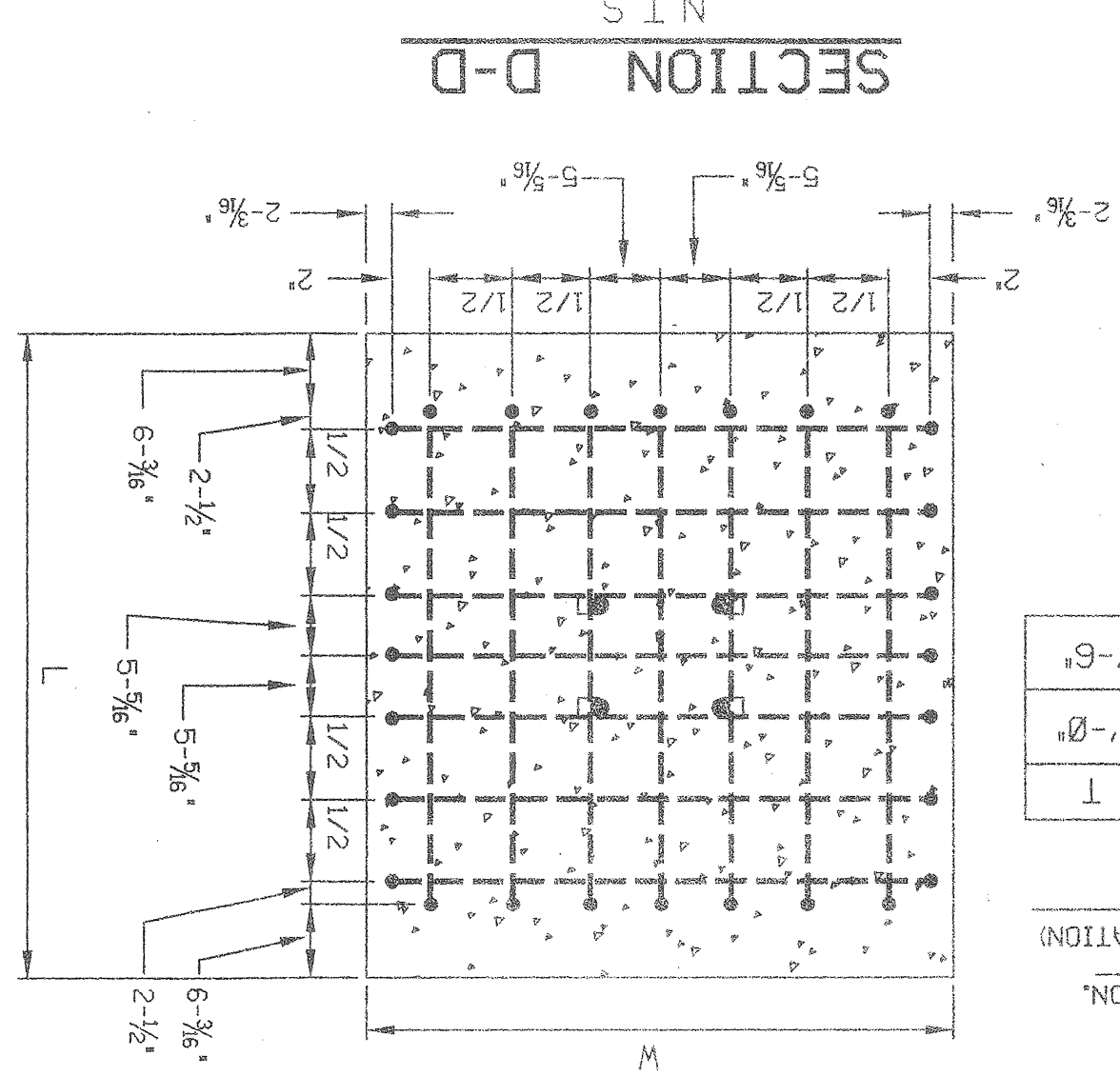
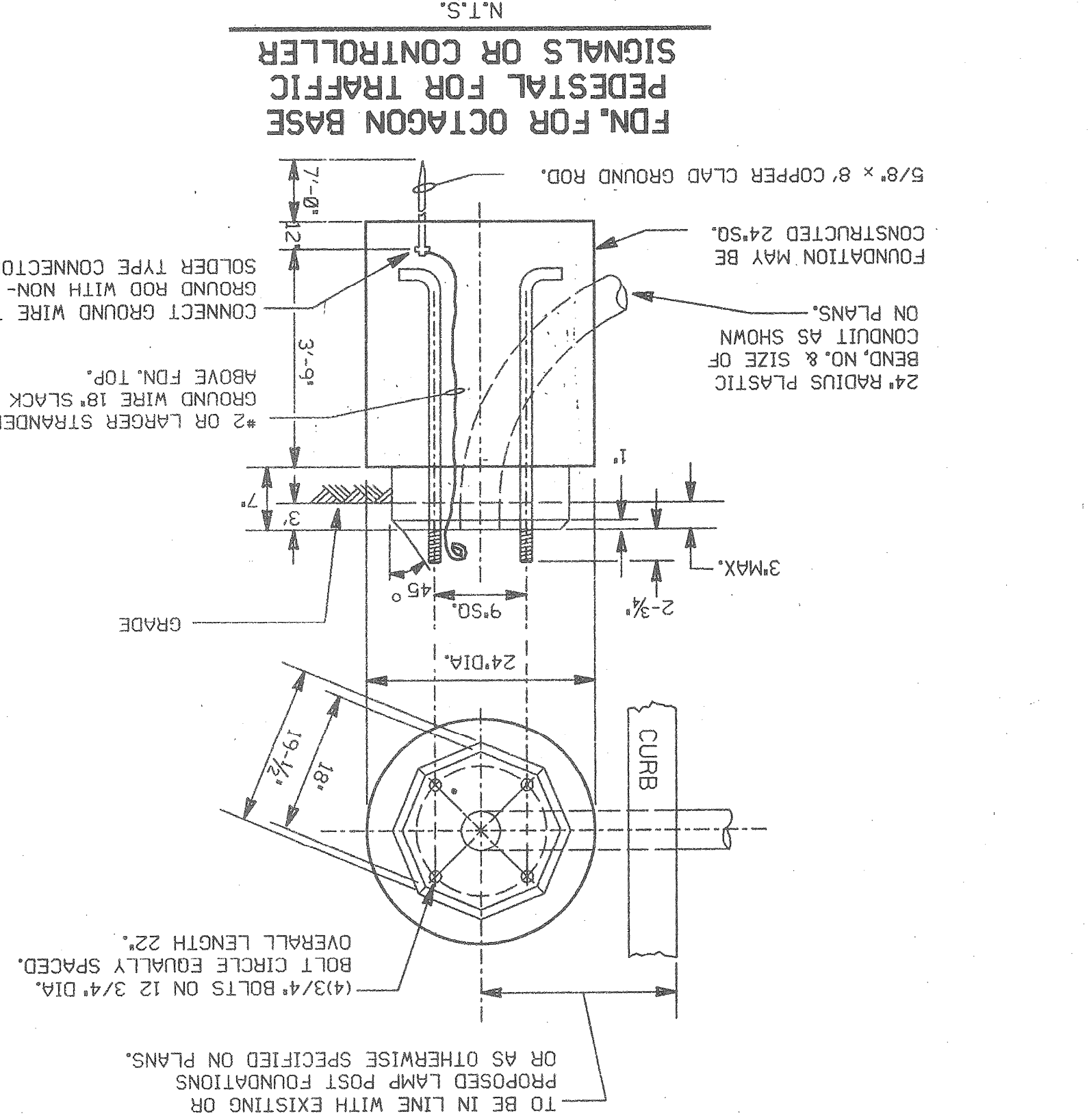
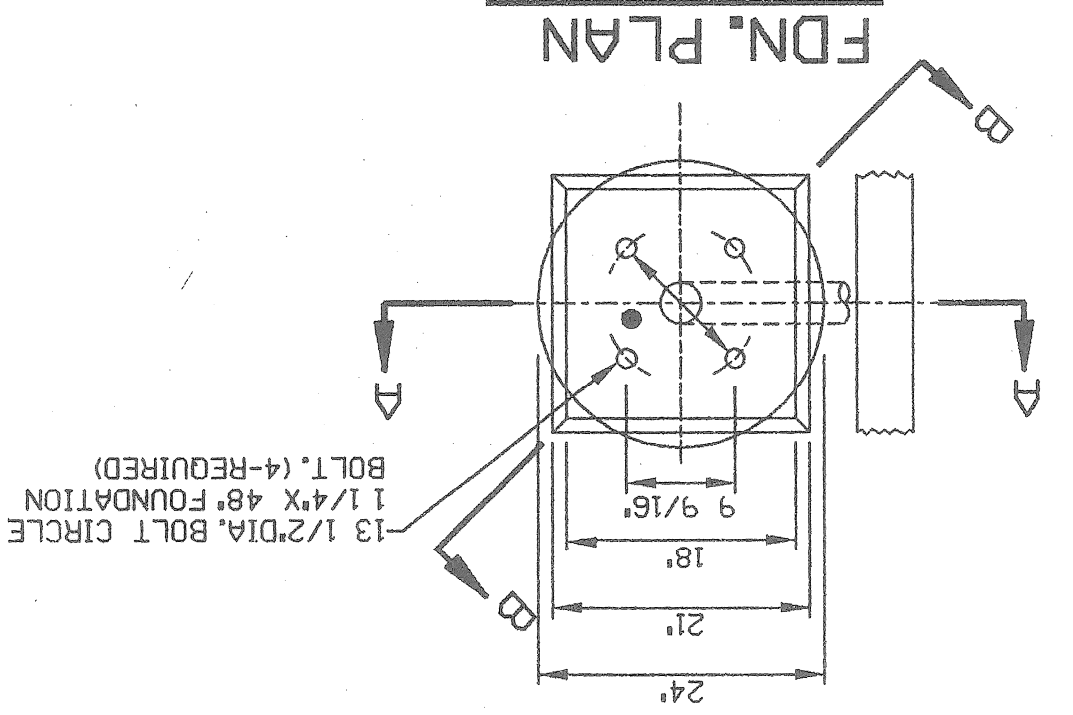
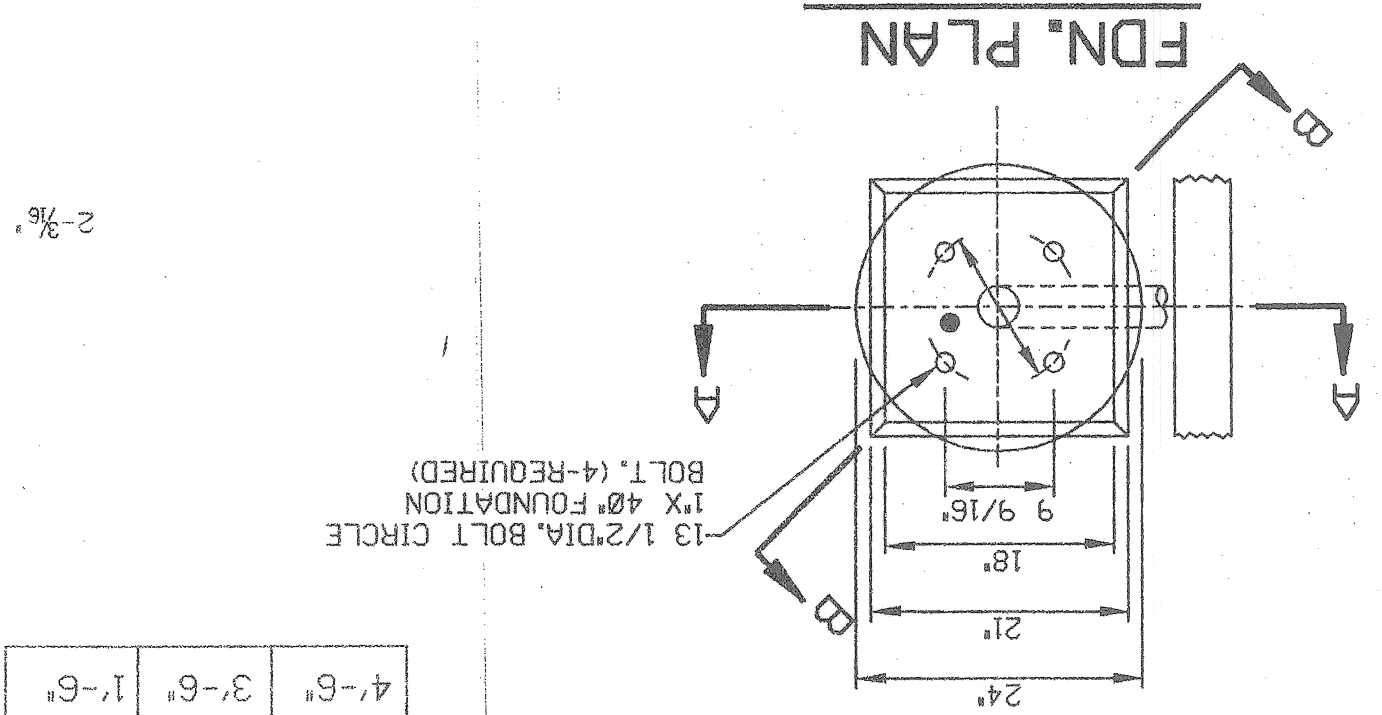
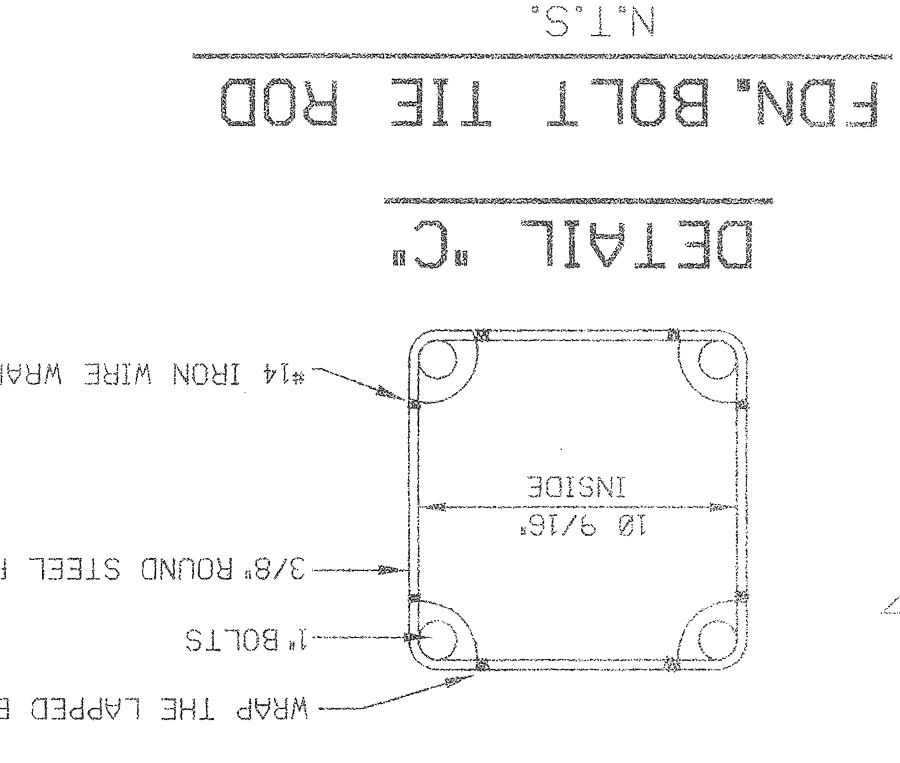
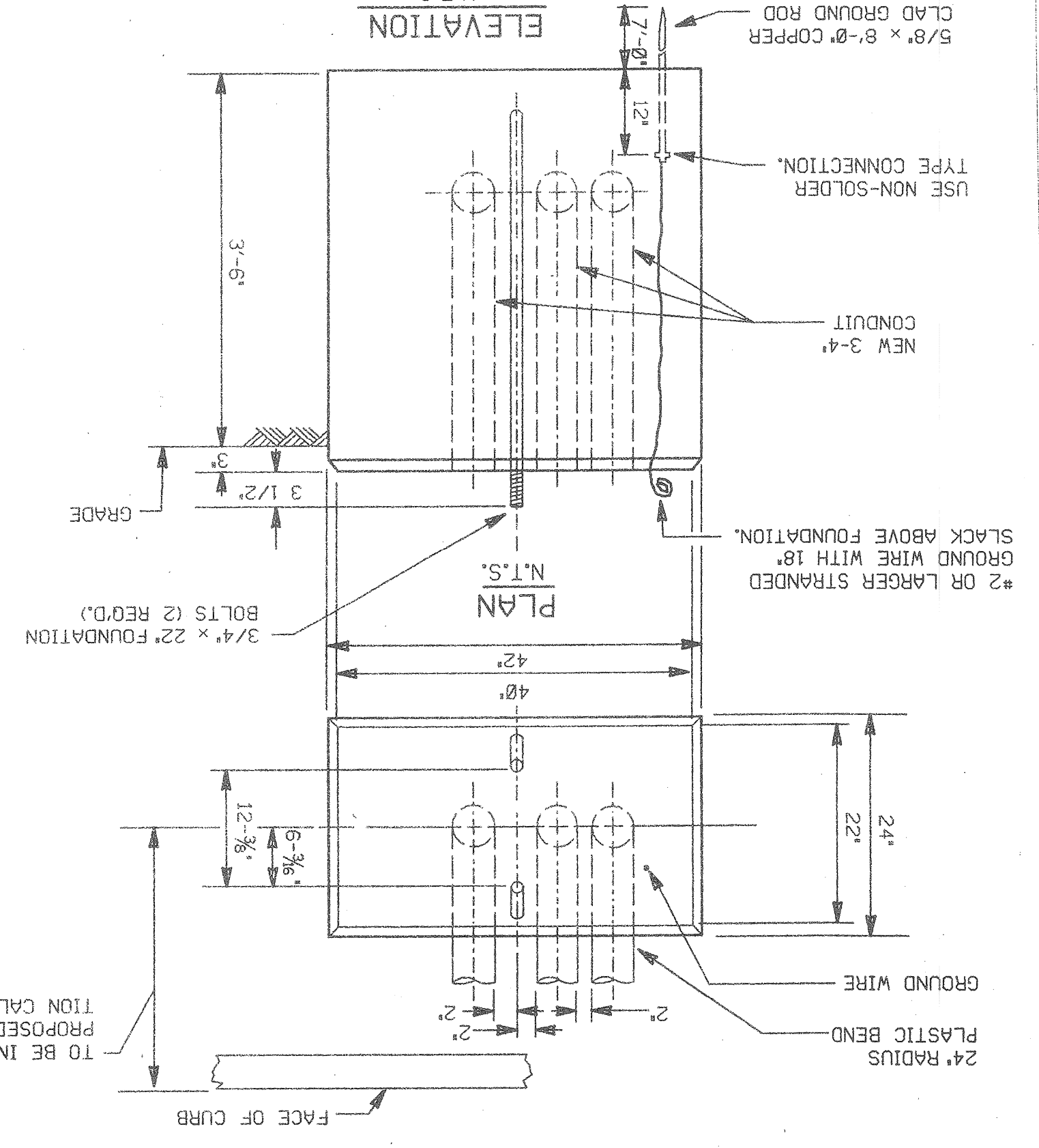
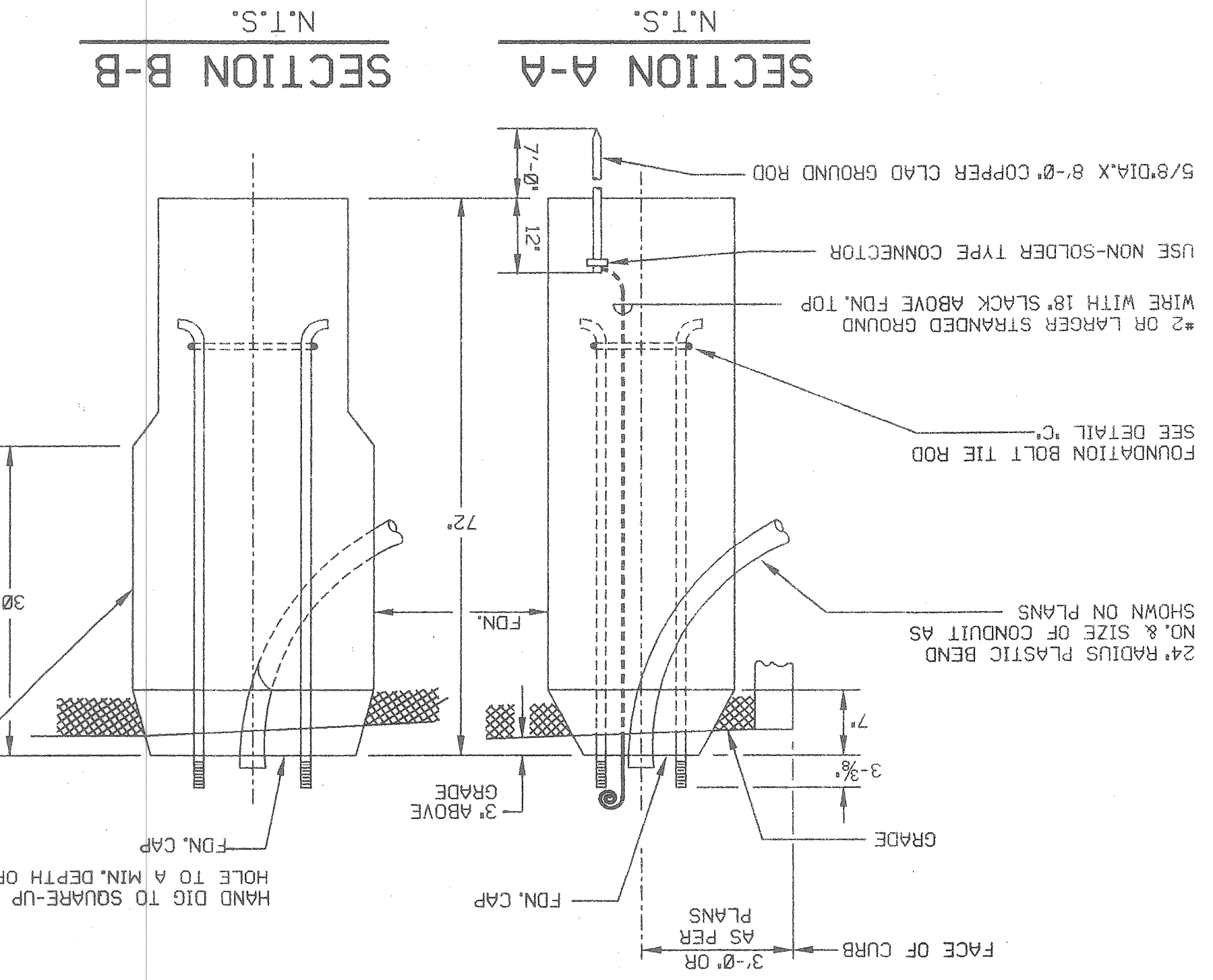
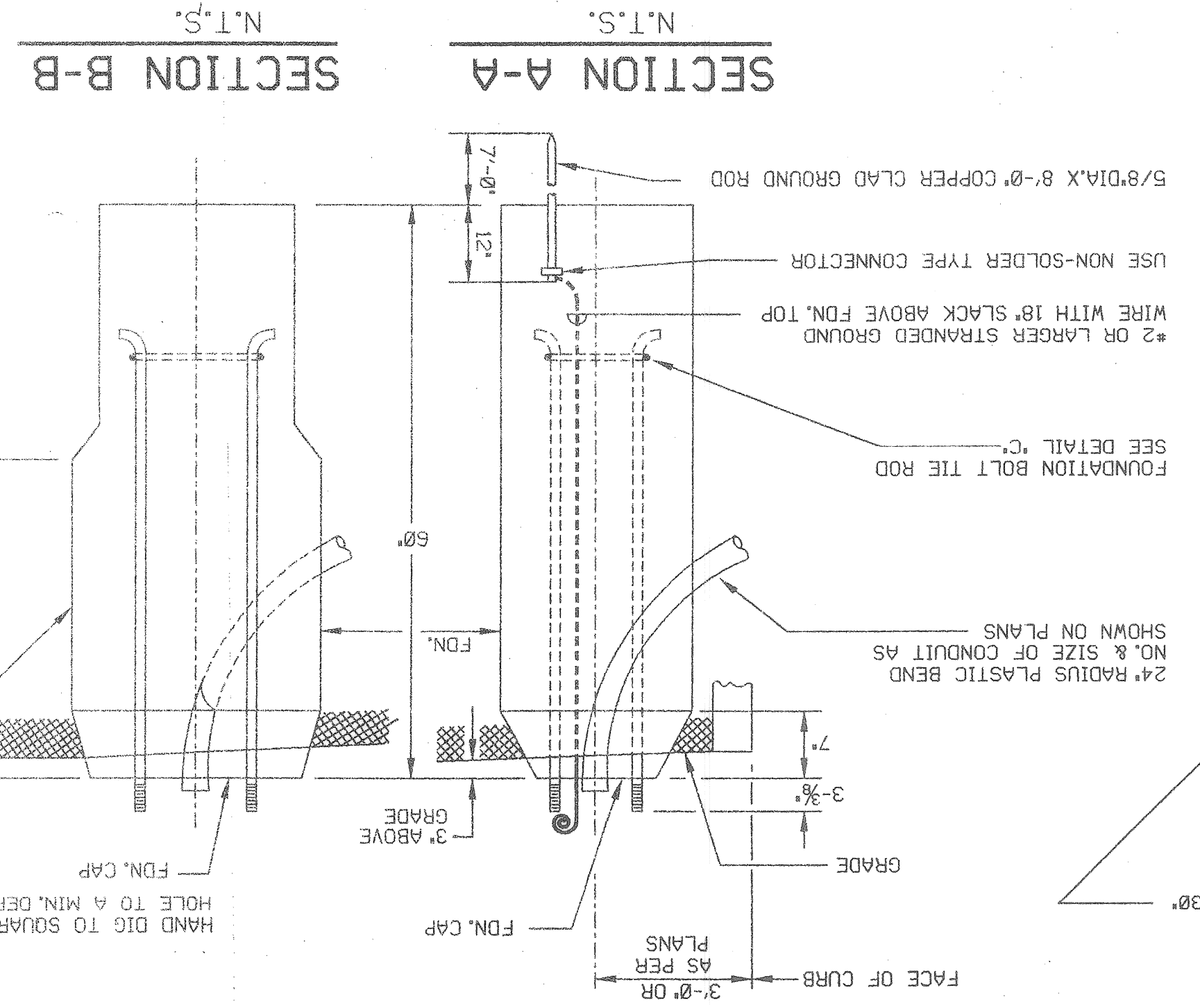
CITY OF DETROIT  
 DEPARTMENT  
 PUBLIC LIGHTING  
 44-0222  
 10-01-96  
 SHEET NO. 15 OF 39

ANCHOR BASE STD. FOUNDATION  
 CODE 009-00,010-06,116-02

ANCHOR BASE STD. FOUNDATION  
 CODE 118-06,119-06,117-10-10

FOUNDATION FOR BASE MOUNTED  
 T.S. CONTROLLER & CABINET (M-36)  
 N.T.S.

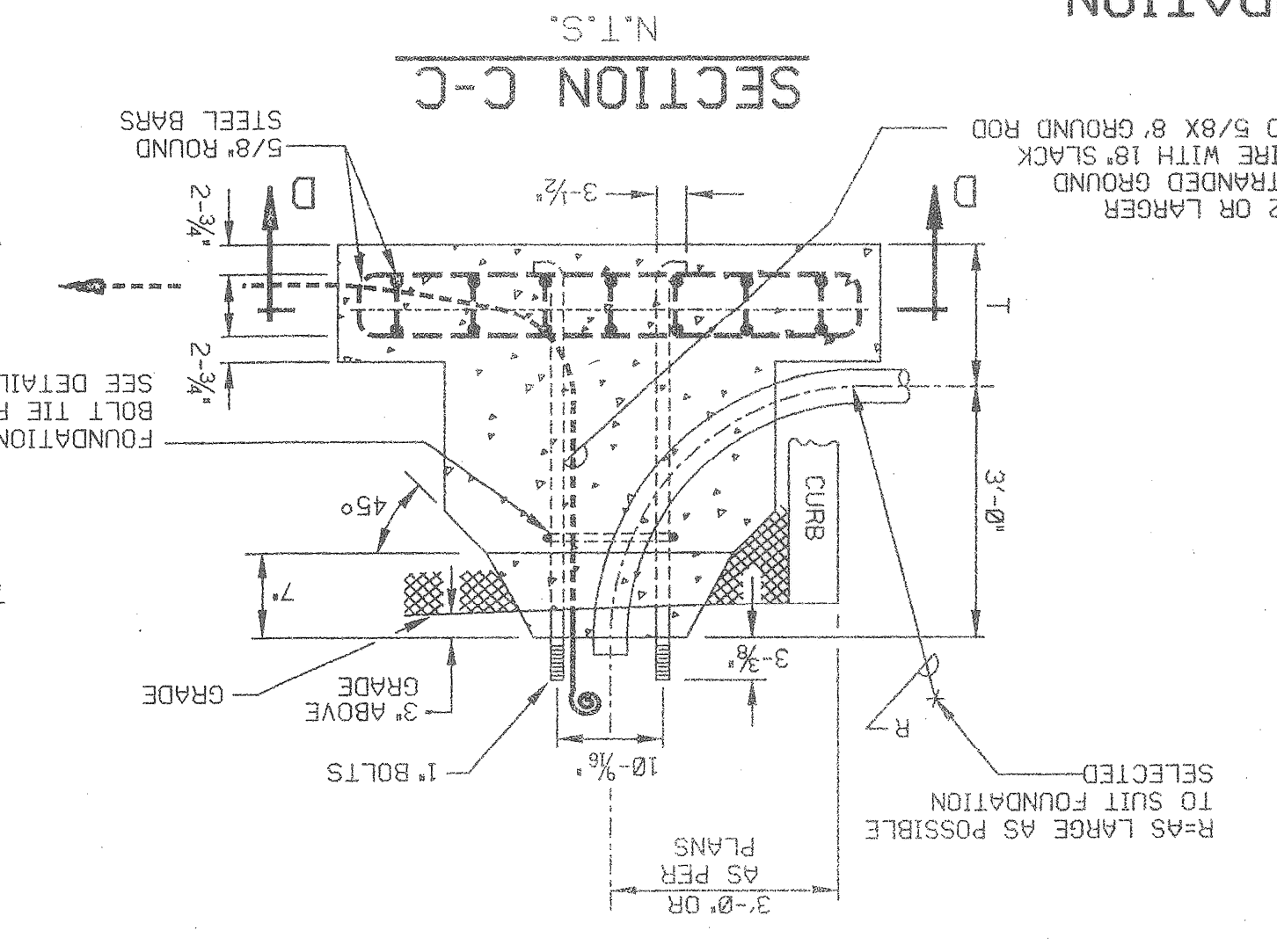
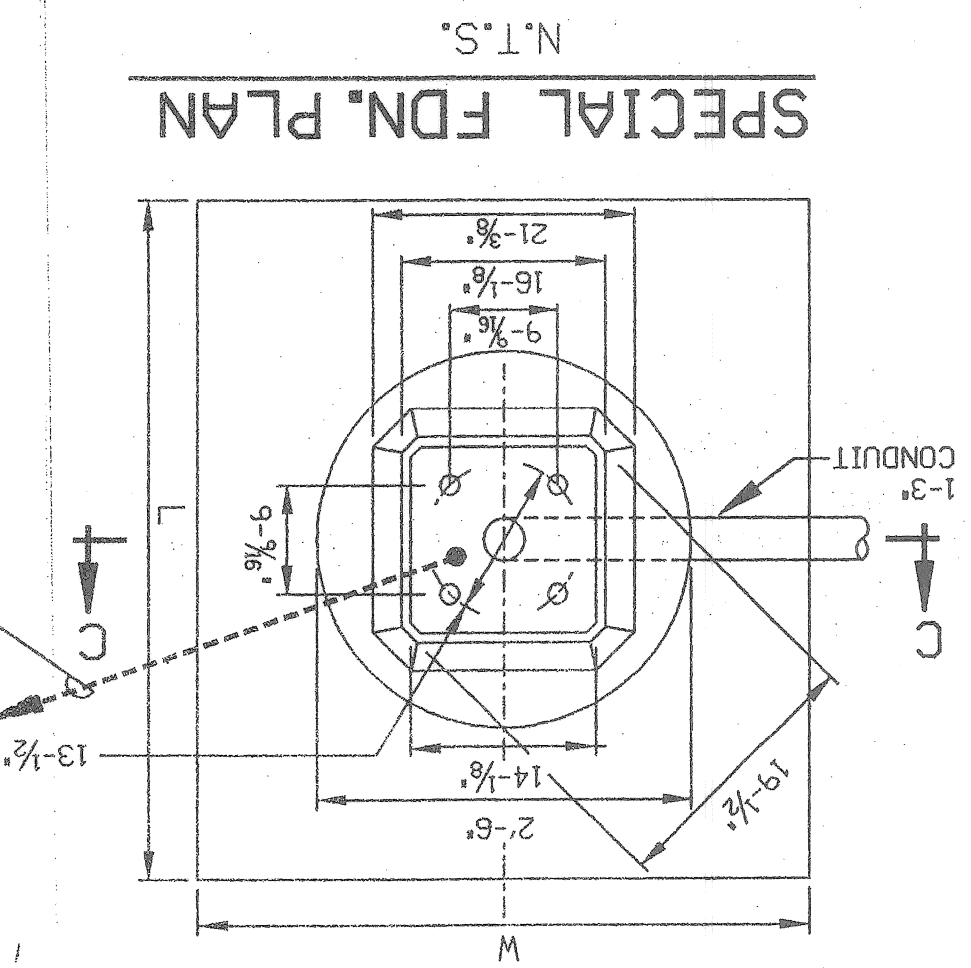
ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.



L	W	T
4'-6"	3'-6"	1'-6"
5'-0"	4'-3"	1'-0"

THERE SHALL BE NO EXTRA PAYMENT FOR SPECIAL FDN. (TO BE PAID FOR AS A NORMAL ST. LTO STD. FDN. INSTALLATION)

SPECIAL FOUNDATION



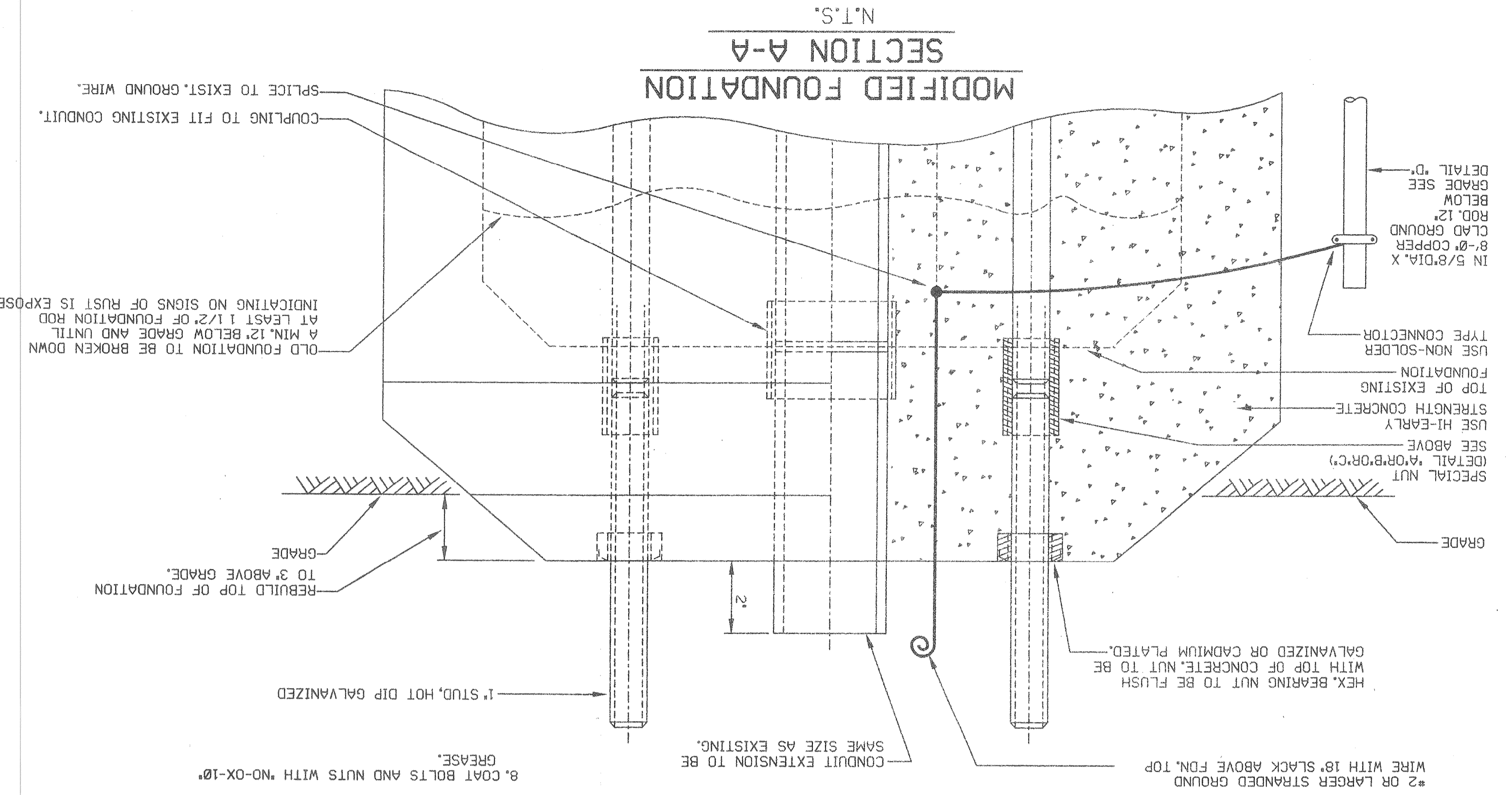


Date	Description	Chkd. by

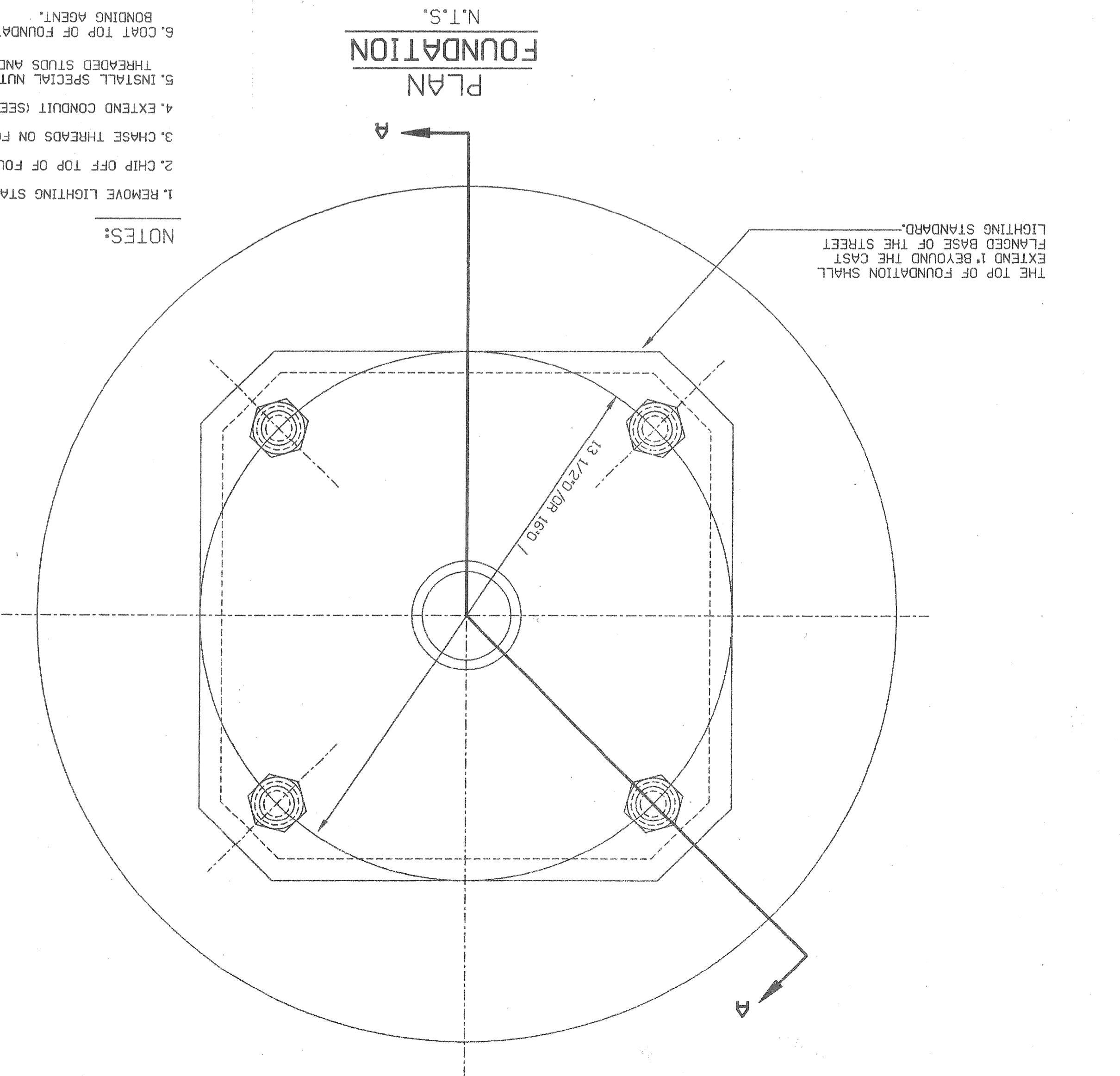
FOUNDATION MODIFICATION(EXIST. BOLT CIRCLE)

CITY OF DETROIT  
 DEPARTMENT  
 PUBLIC LIGHTING  
 File No. 49-0622  
 Sheet No. 110  
 10-01-96

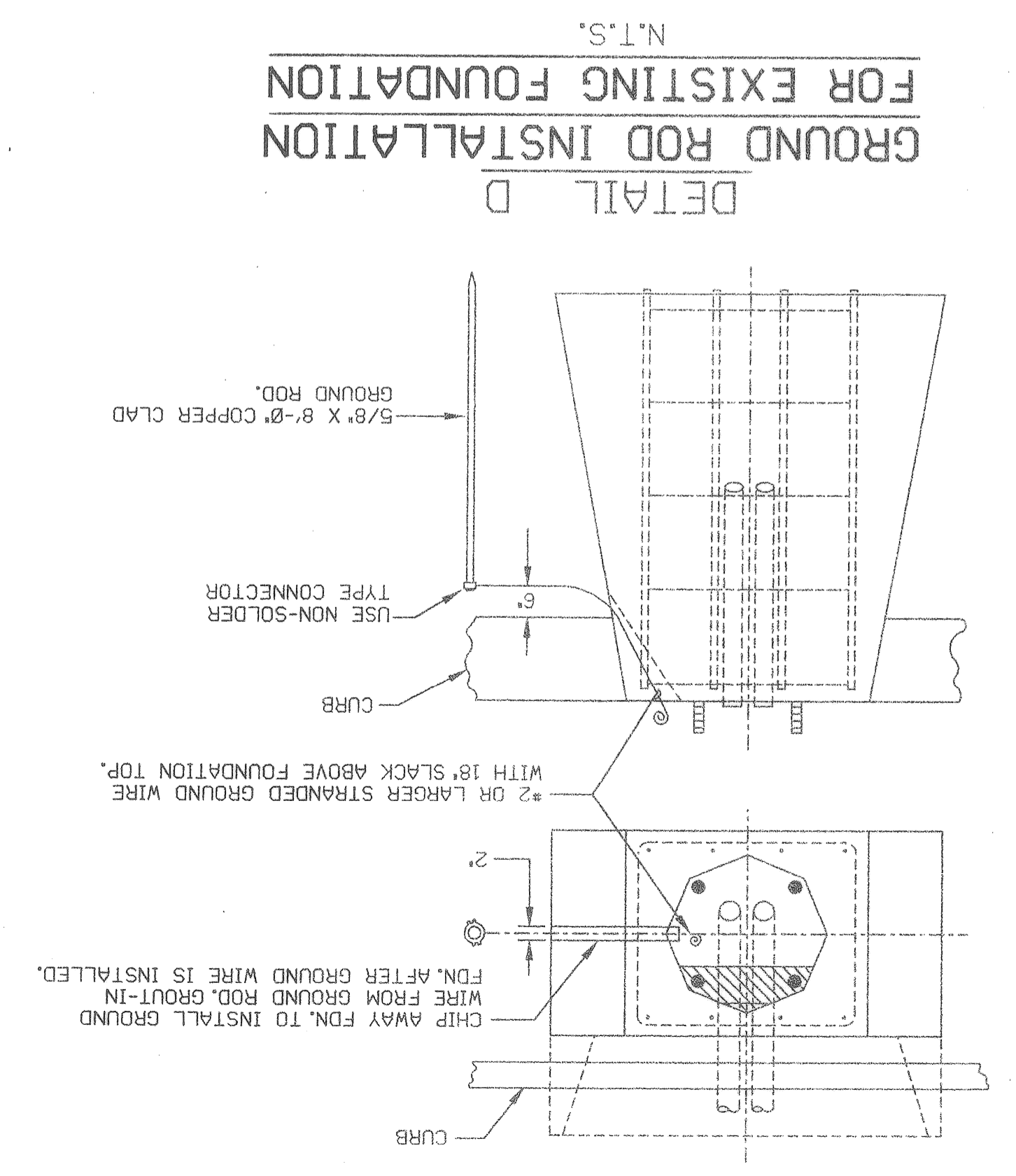
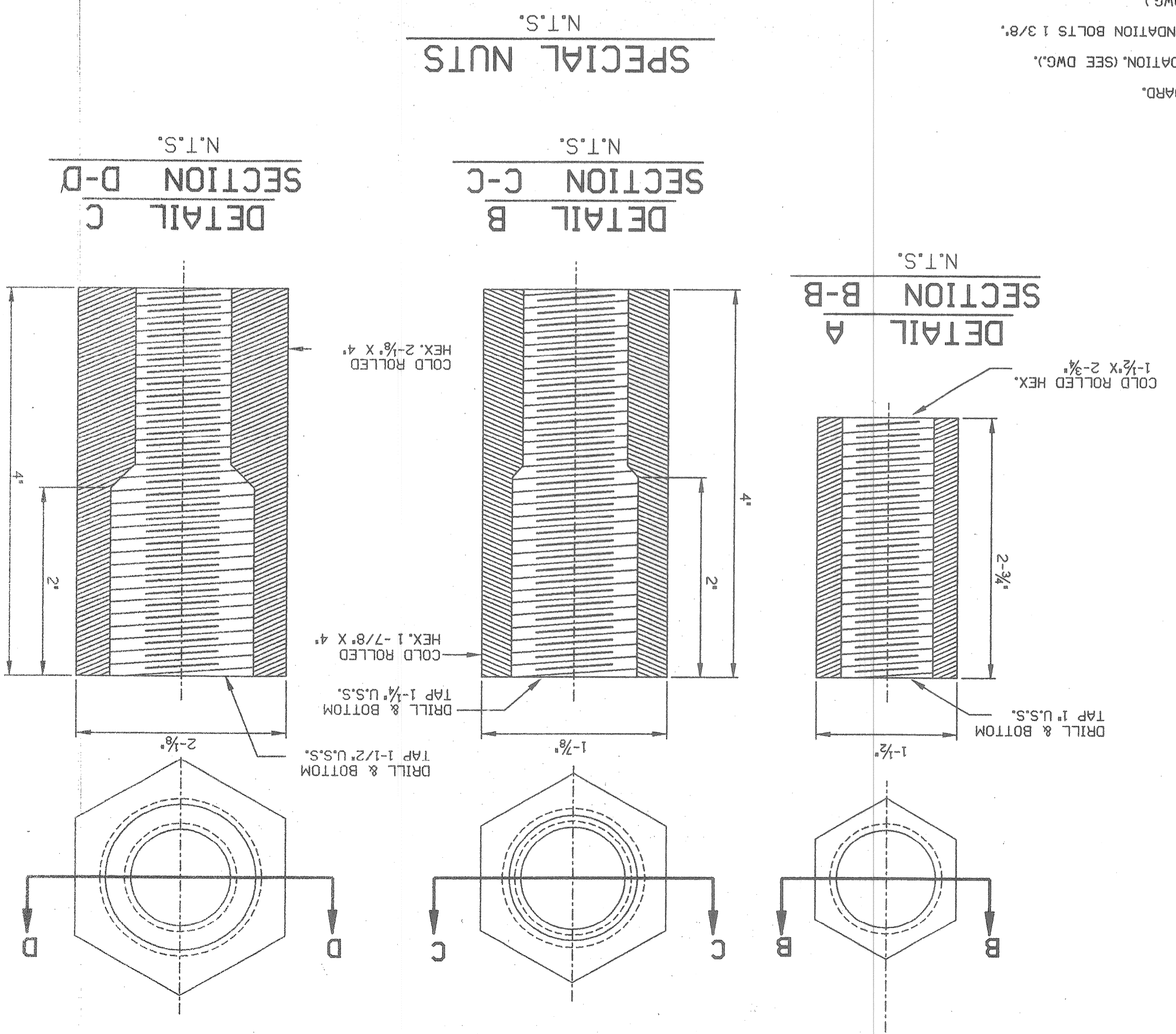
SHEET NO. 16 OF 39



- NOTES:
1. REMOVE LIGHTING STANDARD.
  2. CHIP OFF TOP OF FOUNDATION (SEE DWG.).
  3. CHASE THREADS ON FOUNDATION BOLTS 1 3/8".
  4. EXTEND CONDUIT (SEE DWG.).
  5. INSTALL SPECIAL NUTS (DETAIL 'A' OR 'B' OR 'C'), THREADED STUDS AND BEARING NUTS.
  6. COAT TOP OF FOUNDATION WITH A BONDING AGENT.
  7. MOUNT THE FORM AND POUR THE CONCRETE.
  8. COAT BOLTS AND NUTS WITH "NO-OX-10" GREASE.



ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH. CONTRACTOR TO FIELD SURVEY ALL EXIST. BOLT DIAMETERS.



DETAIL D FOR EXISTING FOUNDATION GROUND ROD INSTALLATION N.T.S.

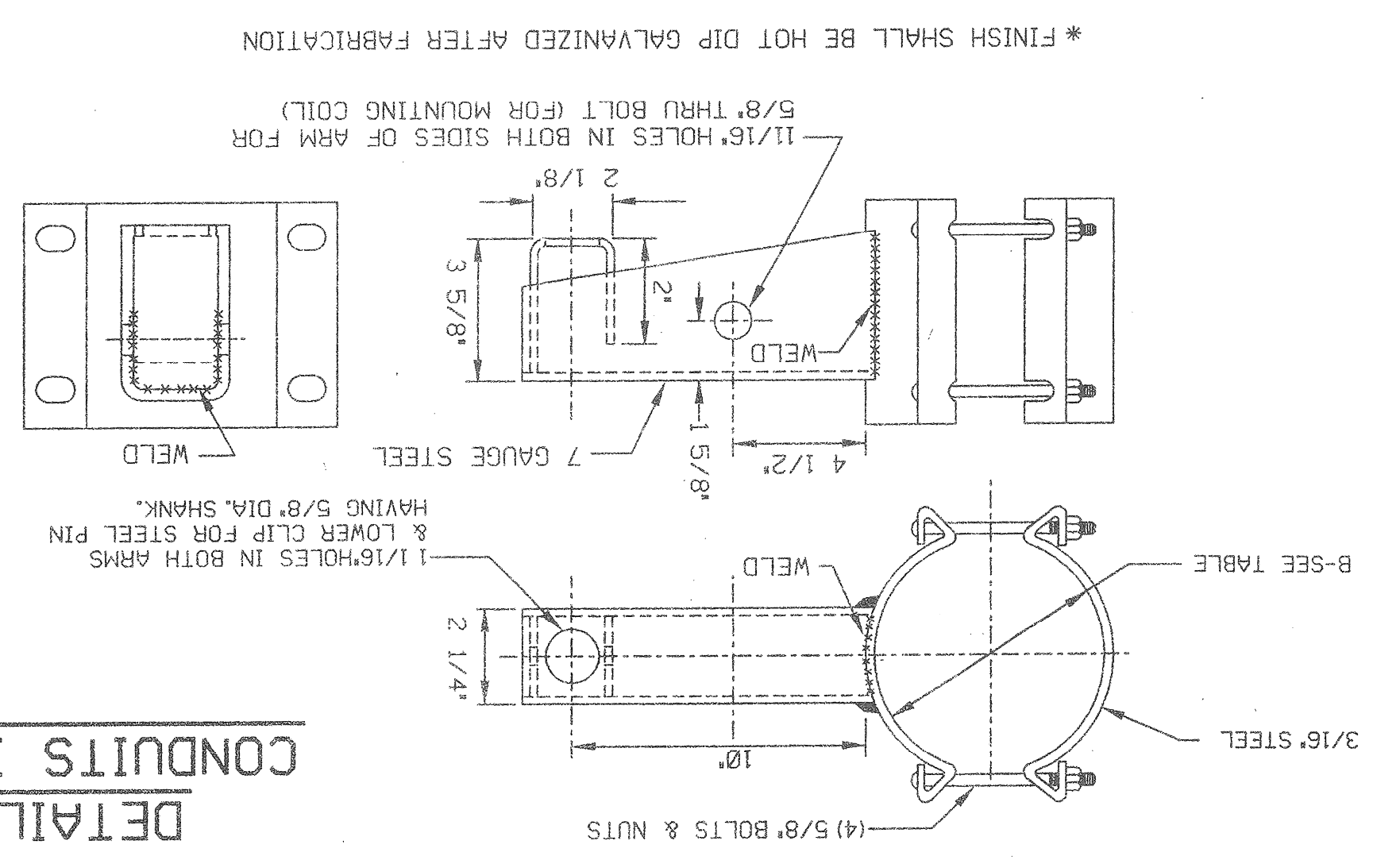


Date	Description	Chkd. by

MULTI-ST. LG. CABLE CONNECTIONS,  
CLAMP-ON ARM & MISC. DETAILS.

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DEPARTMENT  
PUBLIC LIGHTING  
49-0622  
10-01-96  
114

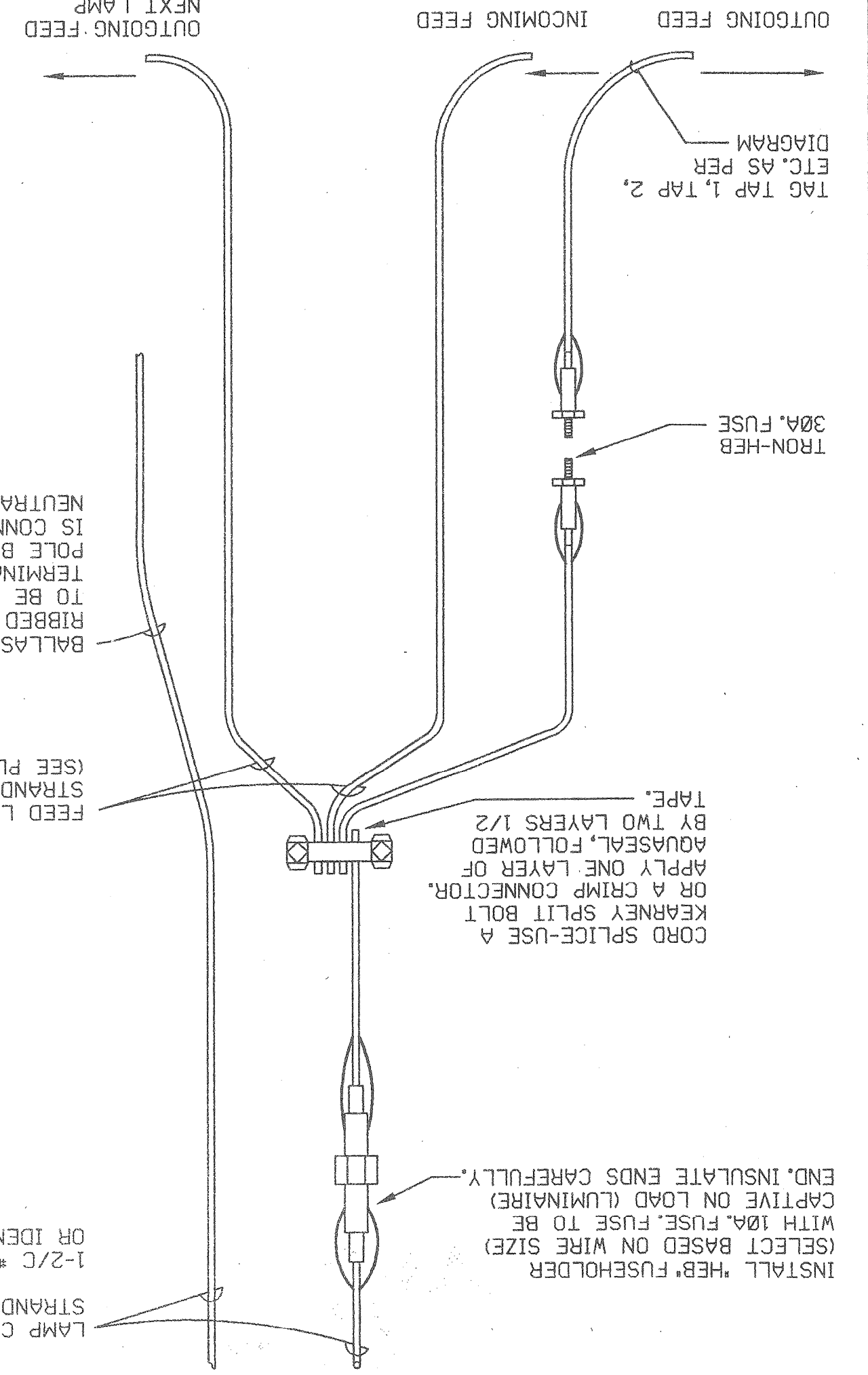
**CLAMP FEEDER ARM**  
N.T.S.



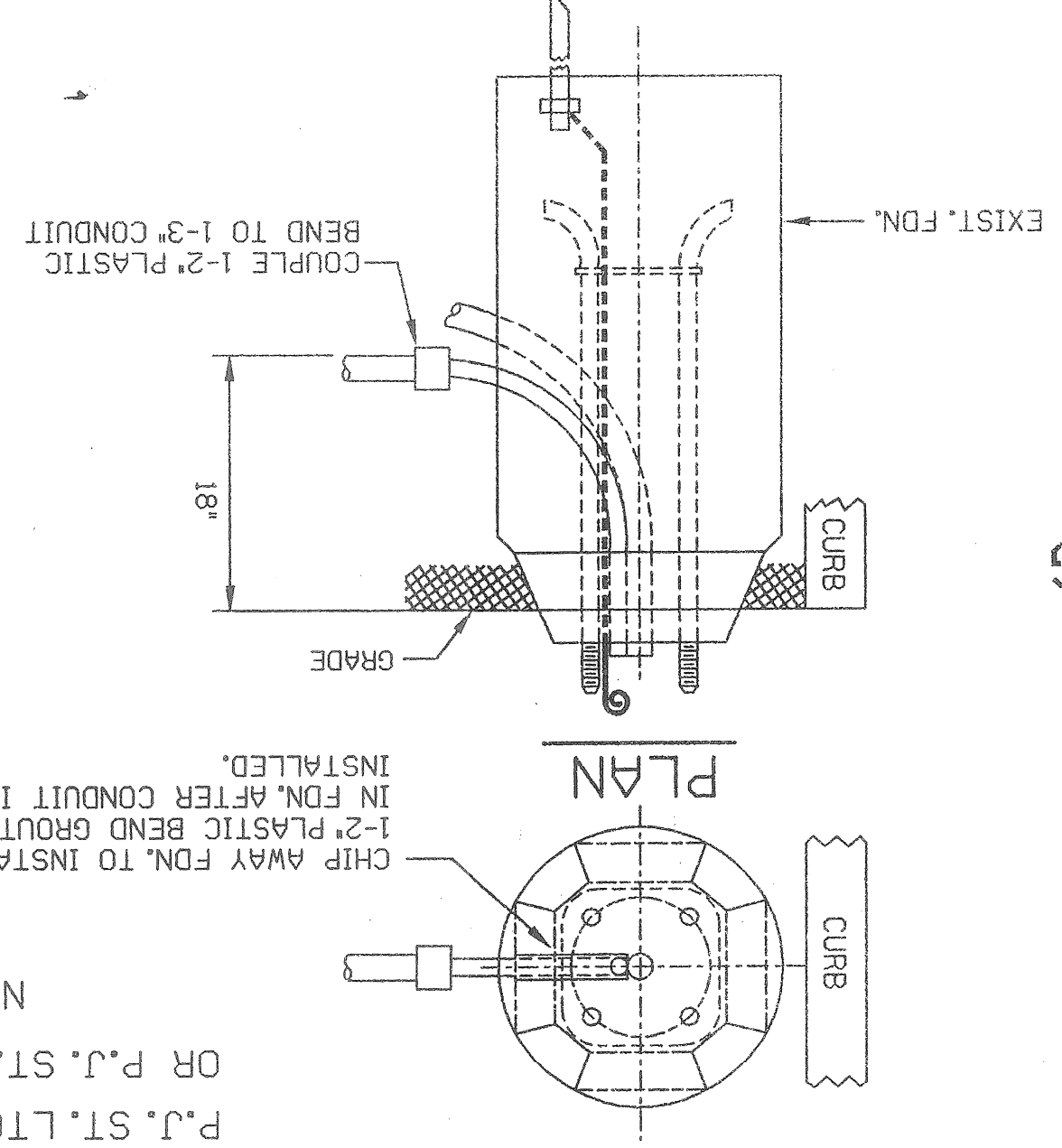
CLAMP SIZE TABLE

TYPE	POLE DIAMETER
A	3.6"-4.5"
B	6.1"-6.9"
C	7.5"-8.5"

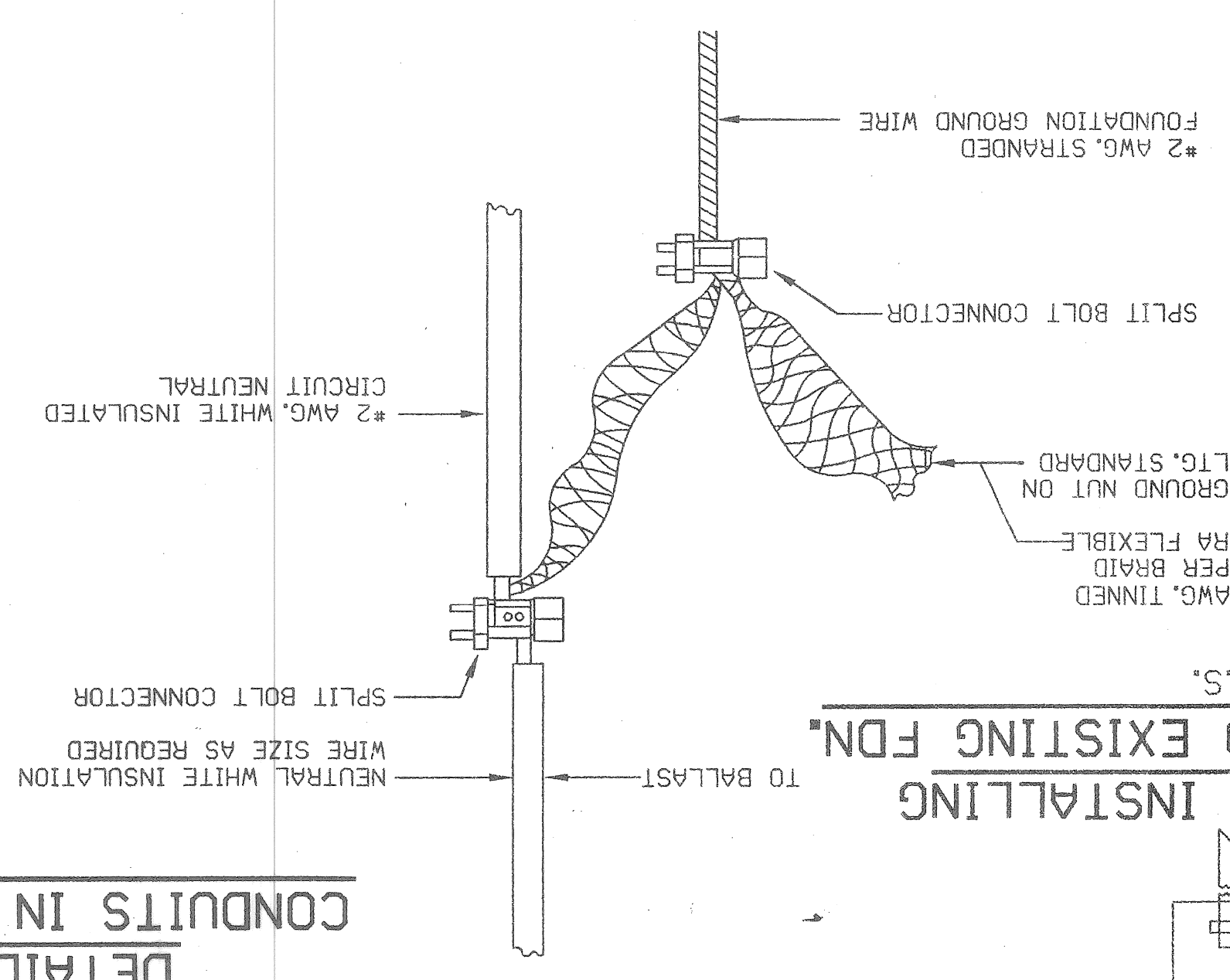
**MULTIPLE STREET LIGHTING CONNECTION IN POLE BASE**  
N.T.S.



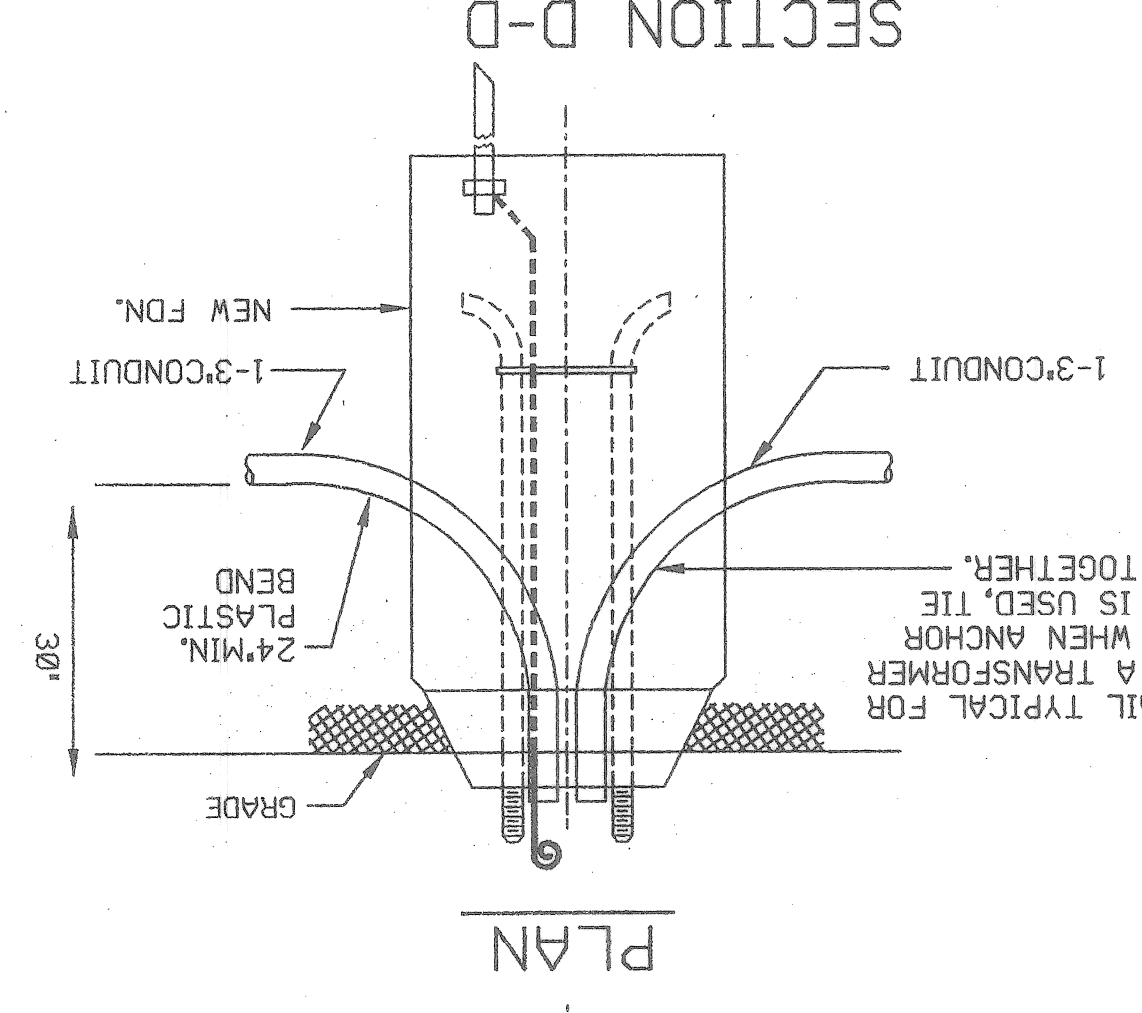
**DETAIL OF INSTALLING CONDUITS INTO EXISTING FDN.**  
N.T.S.



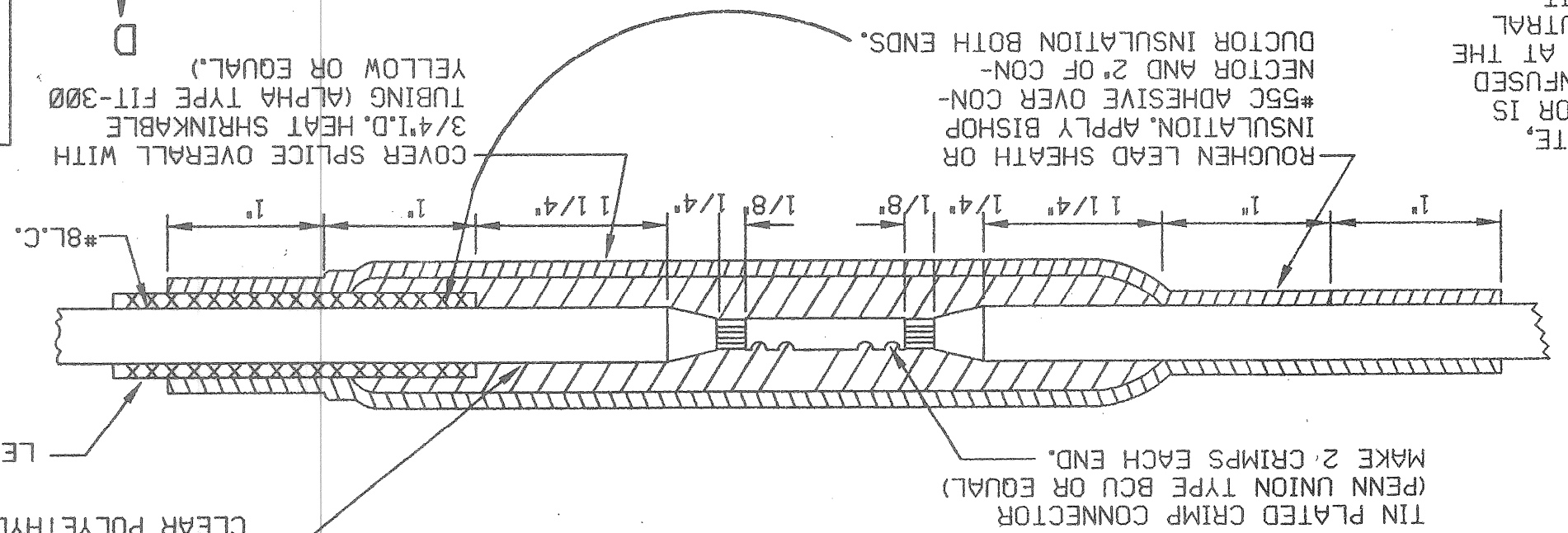
**GROUND CONNECTION**  
N.T.S.



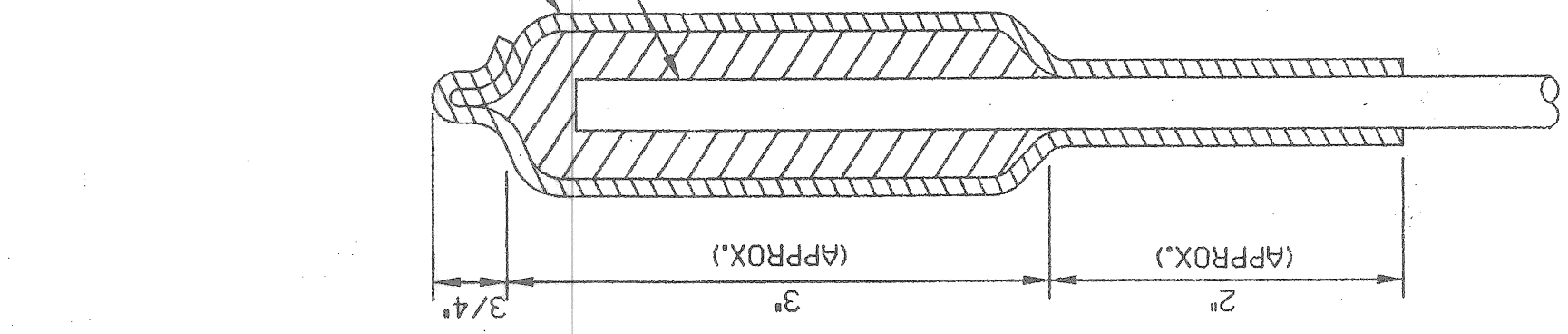
**DETAIL OF INSTALLING CONDUITS IN & OUT OF NEW FDN.**  
N.T.S.



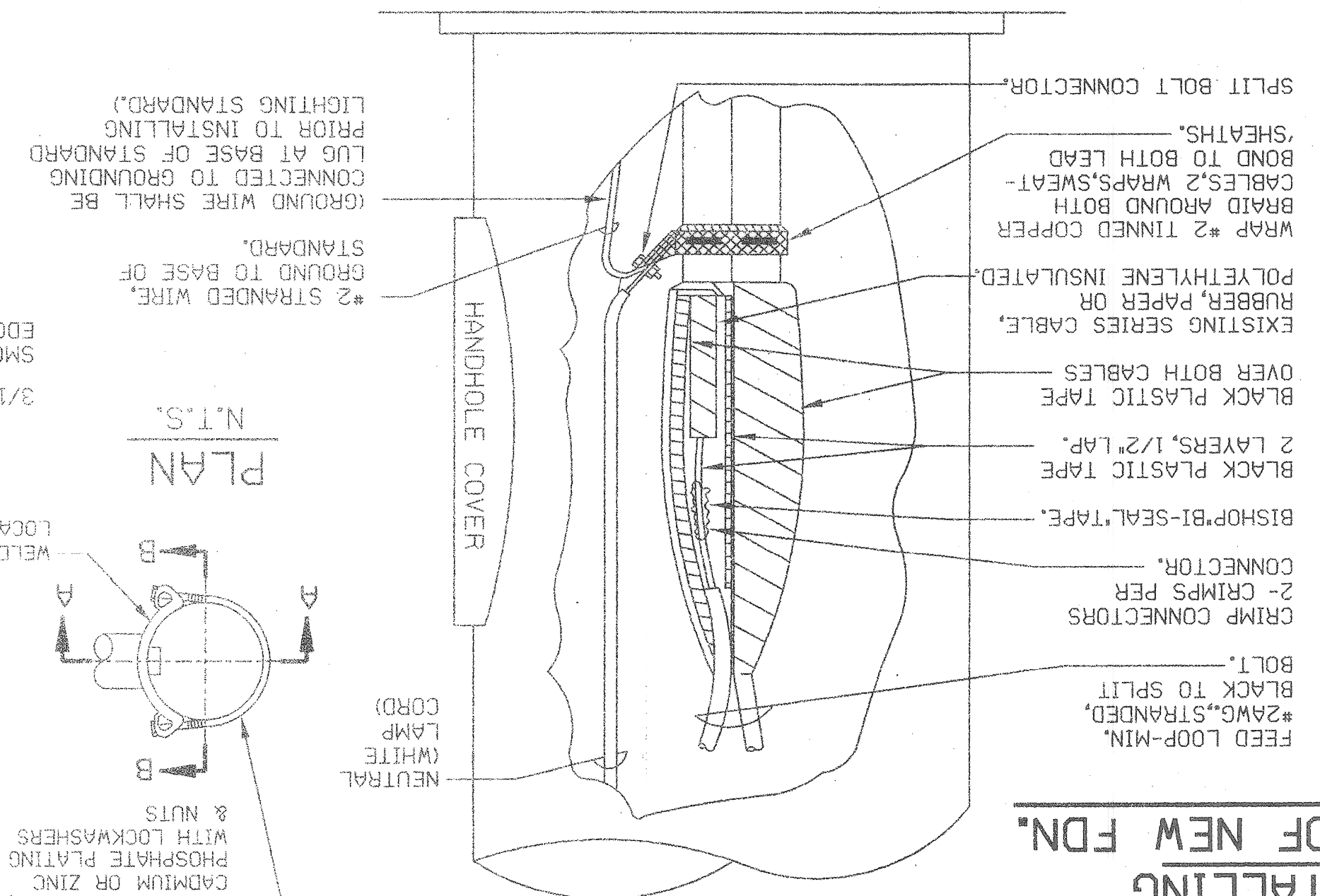
**MULTIPLE STREET LIGHTING SPLICE DETAIL A**  
N.T.S.



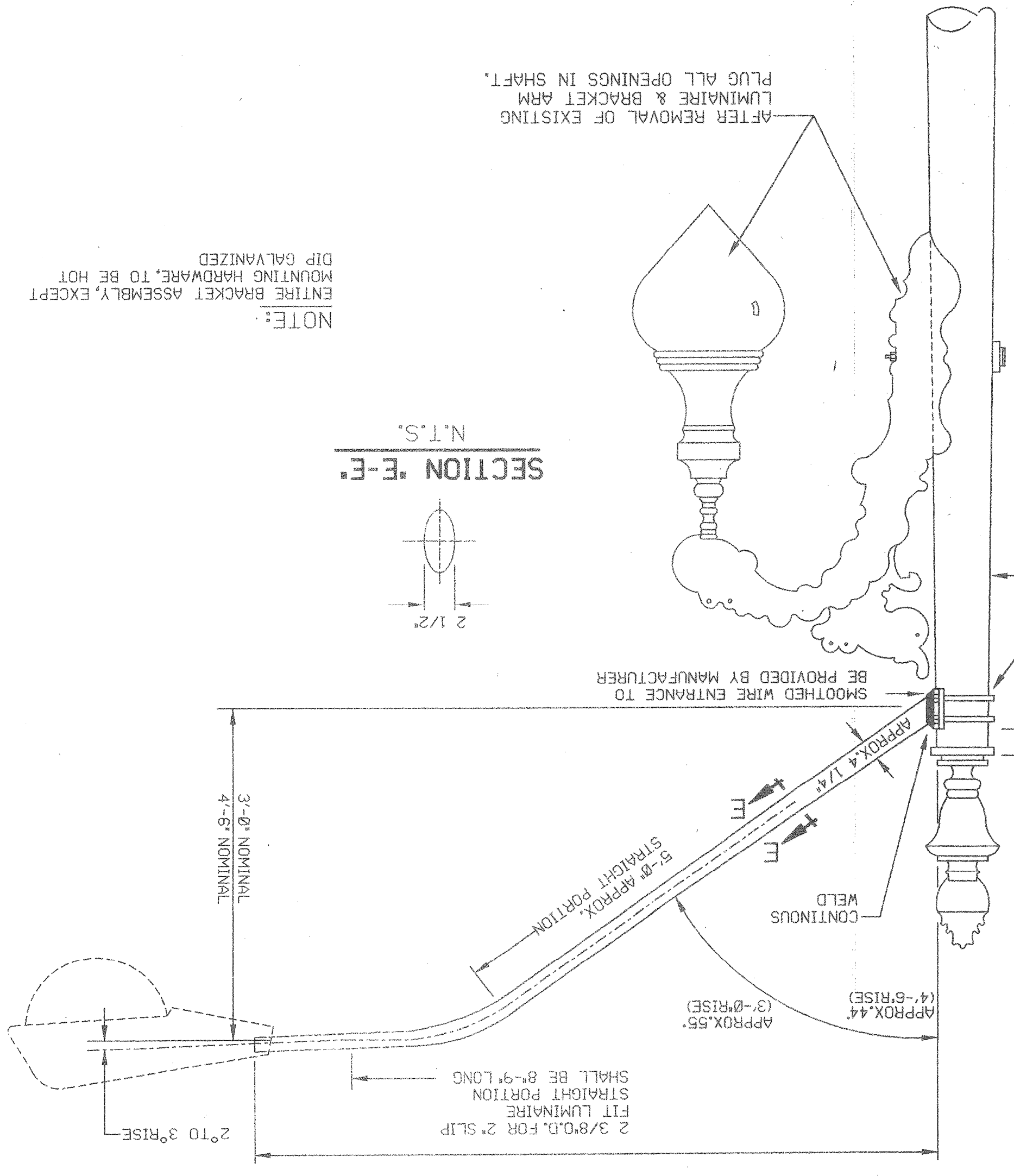
**DETAIL OF SEALING OF CABLE END**  
N.T.S.



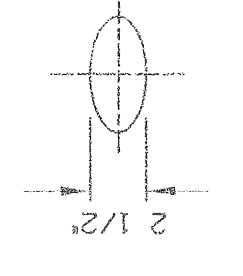
**SERIES-TO-MULTIPLE LIGHTING CONVERSION POLE BASE CONNECTIONS**  
N.T.S.



**CLAMP ON BRACKET ARM ELEVATION**  
N.T.S.

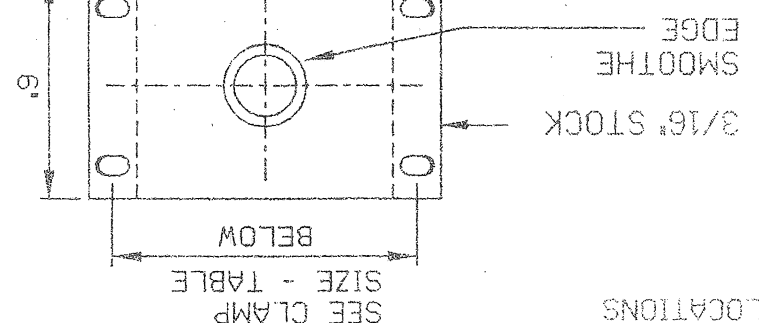


**SECTION E-E**  
N.T.S.

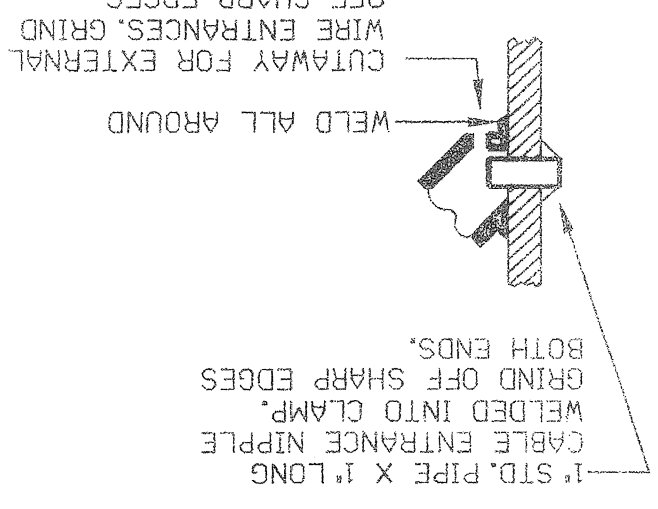


**SECTION B-B**  
CLAMP SIZE TABLE

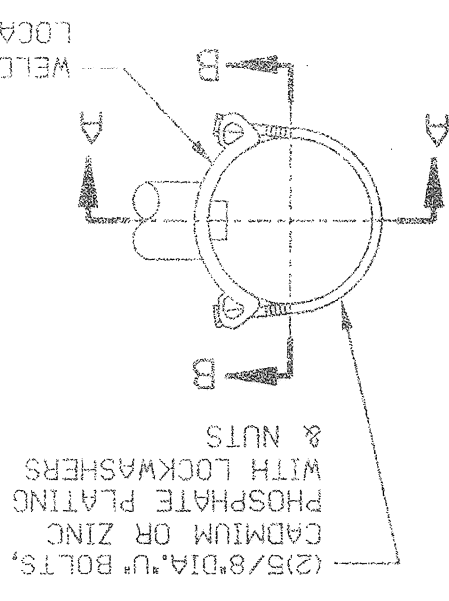
TYPE	POLE DIAMETER
A	3.6"-4.5"
B	6.1"-6.9"
C	7.5"-8.5"



**SECTION A-A**



**PLAN**  
N.T.S.



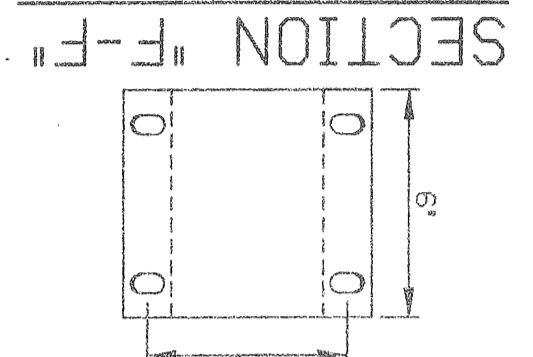


Date	Description	Chkd. by

STD. CODE NO.	SHAFT LENGTH	SHAFT DEFLECTION	MINIMUM LOAD	ANCHOR BOLT	ANCHOR CIRCLE Ø	ANCHOR BOLT Ø	HANDHOLE	LUMINAIRE HEIGHT	MOUNTING FITTERS	BRACKET DEFLECTION	BRACKET LENGTH
009-00	28'-6"	2'-9"	880*	13 1/2"	13 1/2"	1 1/2"	1 1/2"	4" X 6 1/2"	4" X 6 1/2"	2'-9"	6'

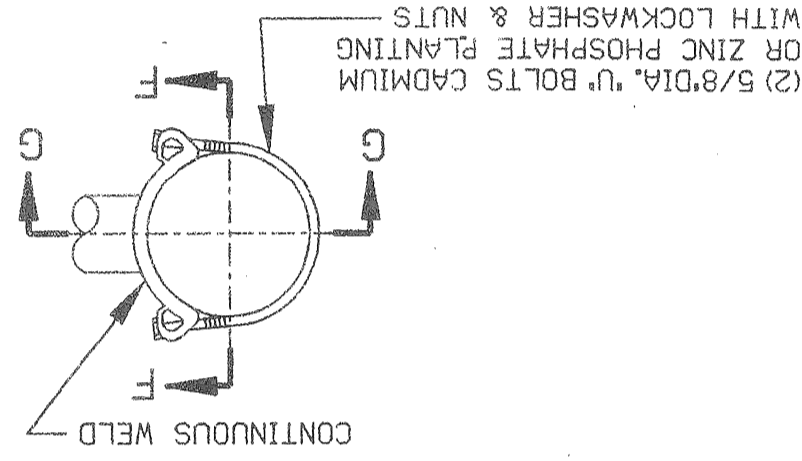
\* SHAFT LOADING  
SHAFTS SHALL WITHSTAND AT THE GUARANTEED MINIMUM YIELD STRENGTH OF APPLIED IN A SINGLE HORIZONTAL DIRECTION. THE LOAD SHALL BE 18 INCHES BELOW TOP OF SHAFT.  
\* SHAFT DEFLECTION: SHAFT DEFLECTION MEASURED IN INCHES AT TOP, SHALL NOT BE GREATER THAN THAT SHOWN, FOR A HORIZONTAL LOAD OF 100 LBS. APPLIED 18 INCHES BELOW TOP OF SHAFT.

PIPE CLAMP DETAILS  
N.T.S.

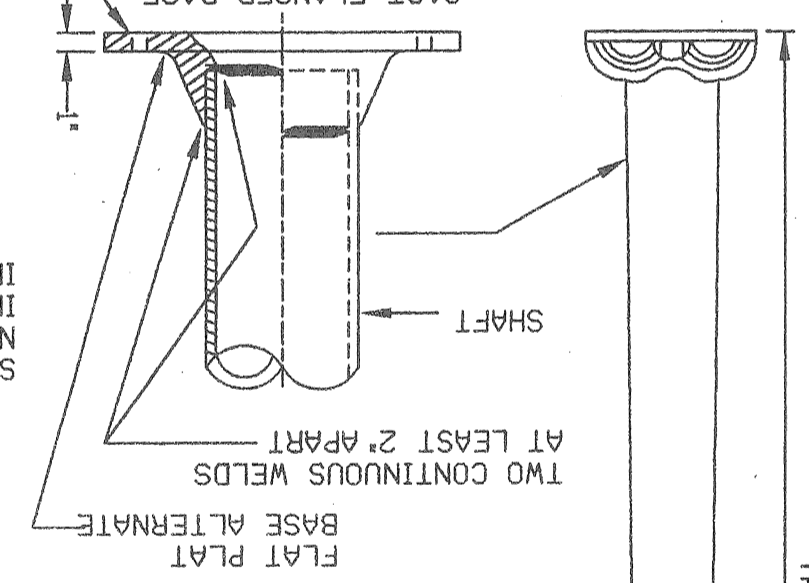


CLAMP SIZE TABLE

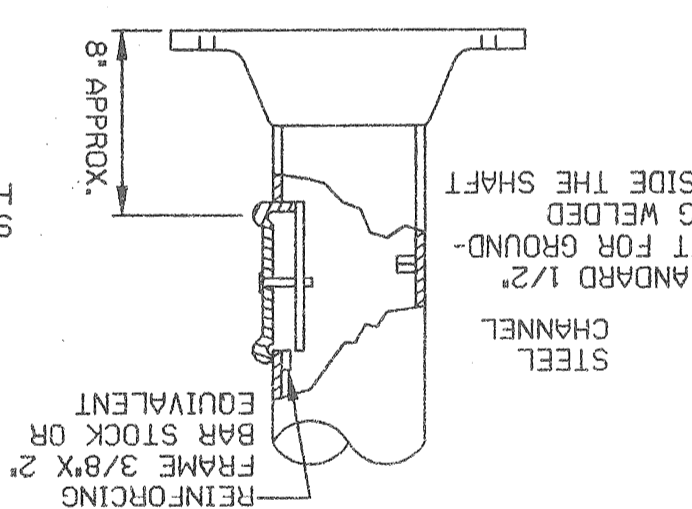
TYPE	POLE DIAMETER	CLAMP SIZE
A	3.6"-4.5"	7.5"-8.5"
B	6.1"-6.9"	7.5"-8.5"
C	7.5"-8.5"	7.5"-8.5"



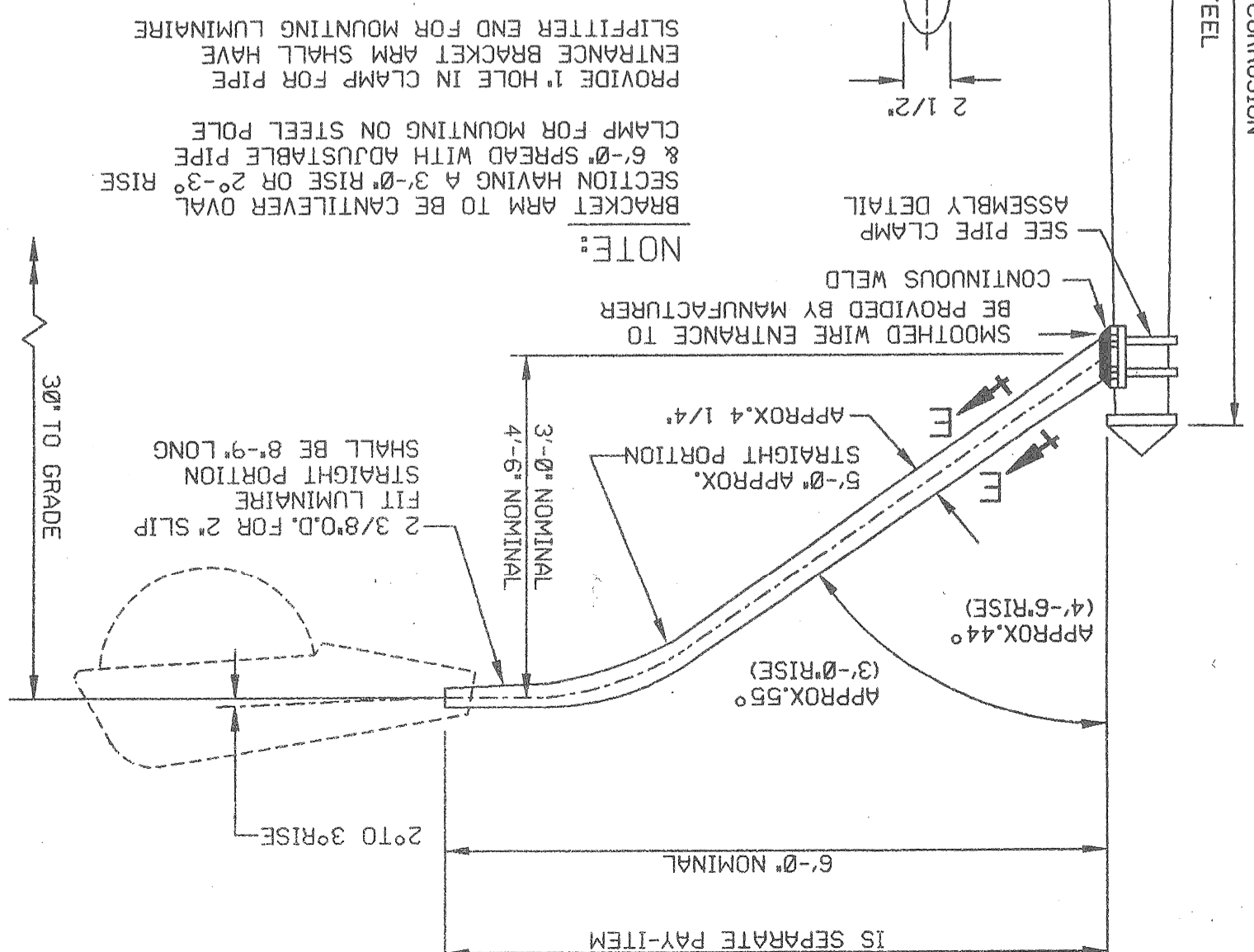
STREET LIGHTING STANDARD  
CODE 009-00  
N.T.S.



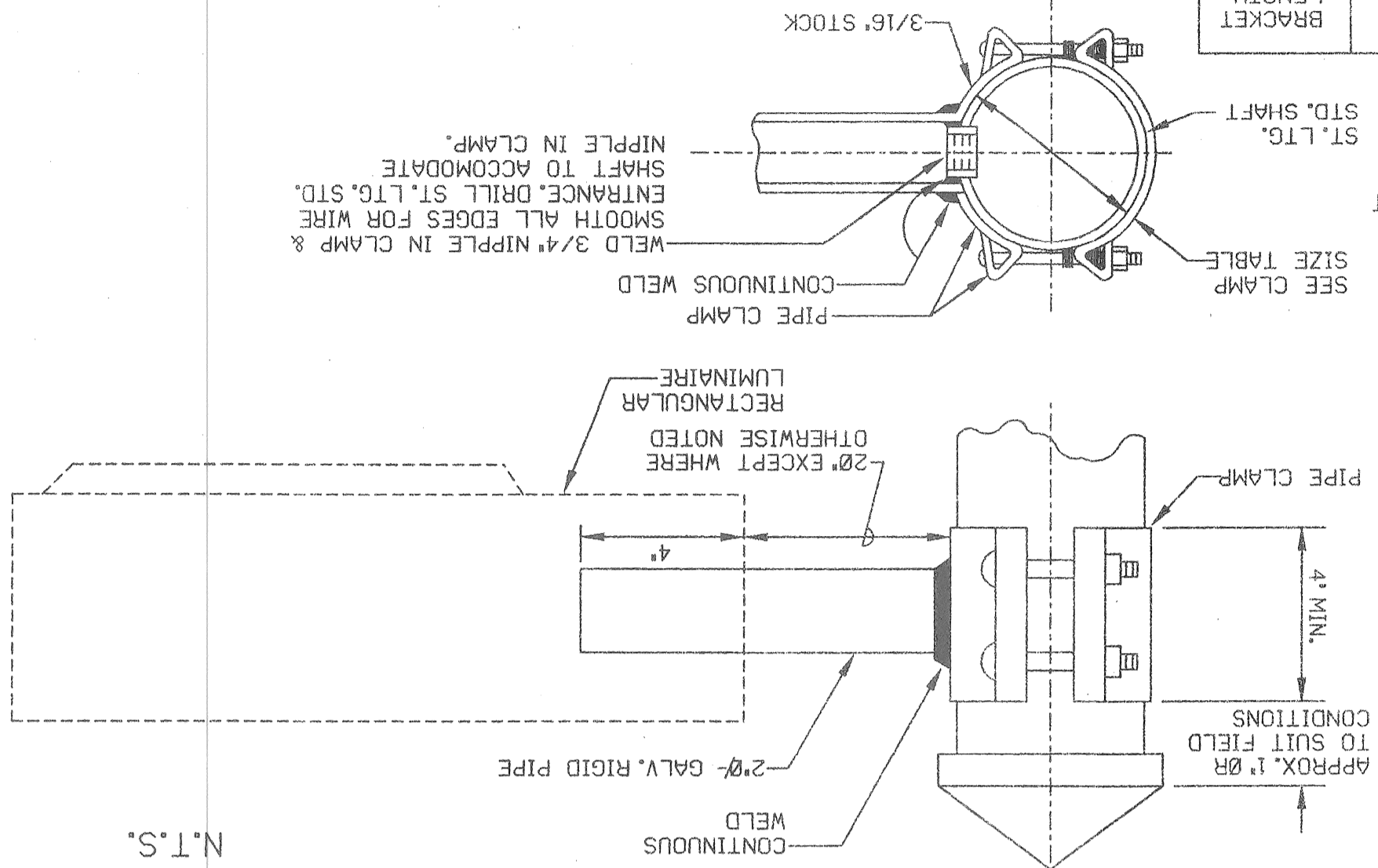
SHAFT MODIFICATION  
N.T.S.



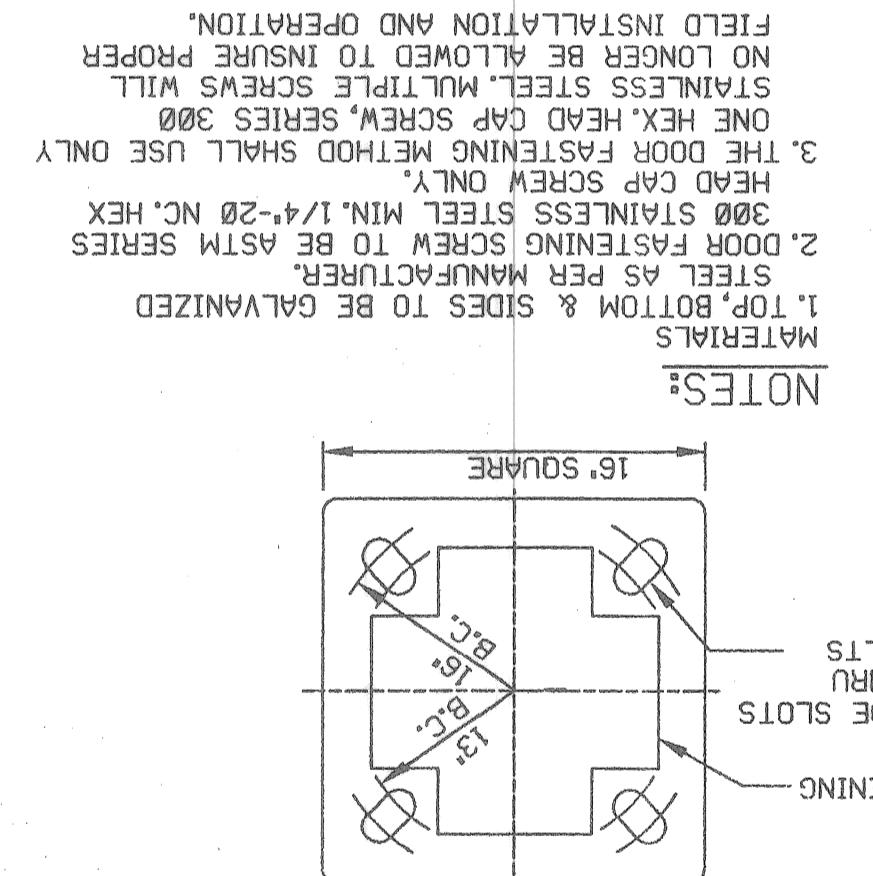
6 FT. CLAMP-ON BRACKET ARM  
N.T.S.



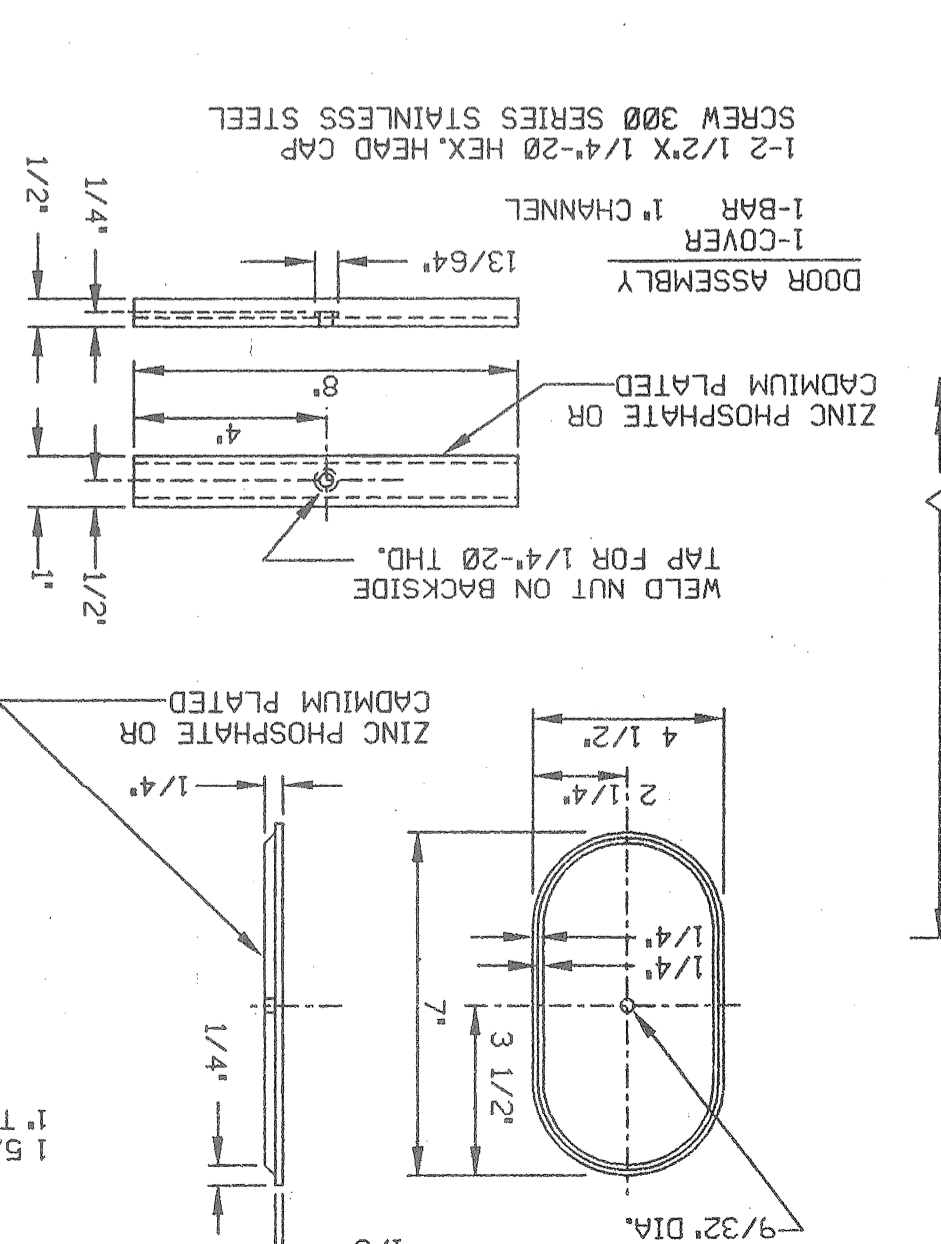
CLAMP-ON BRACKET & RECTANGULAR LUMINAIRE  
N.T.S.



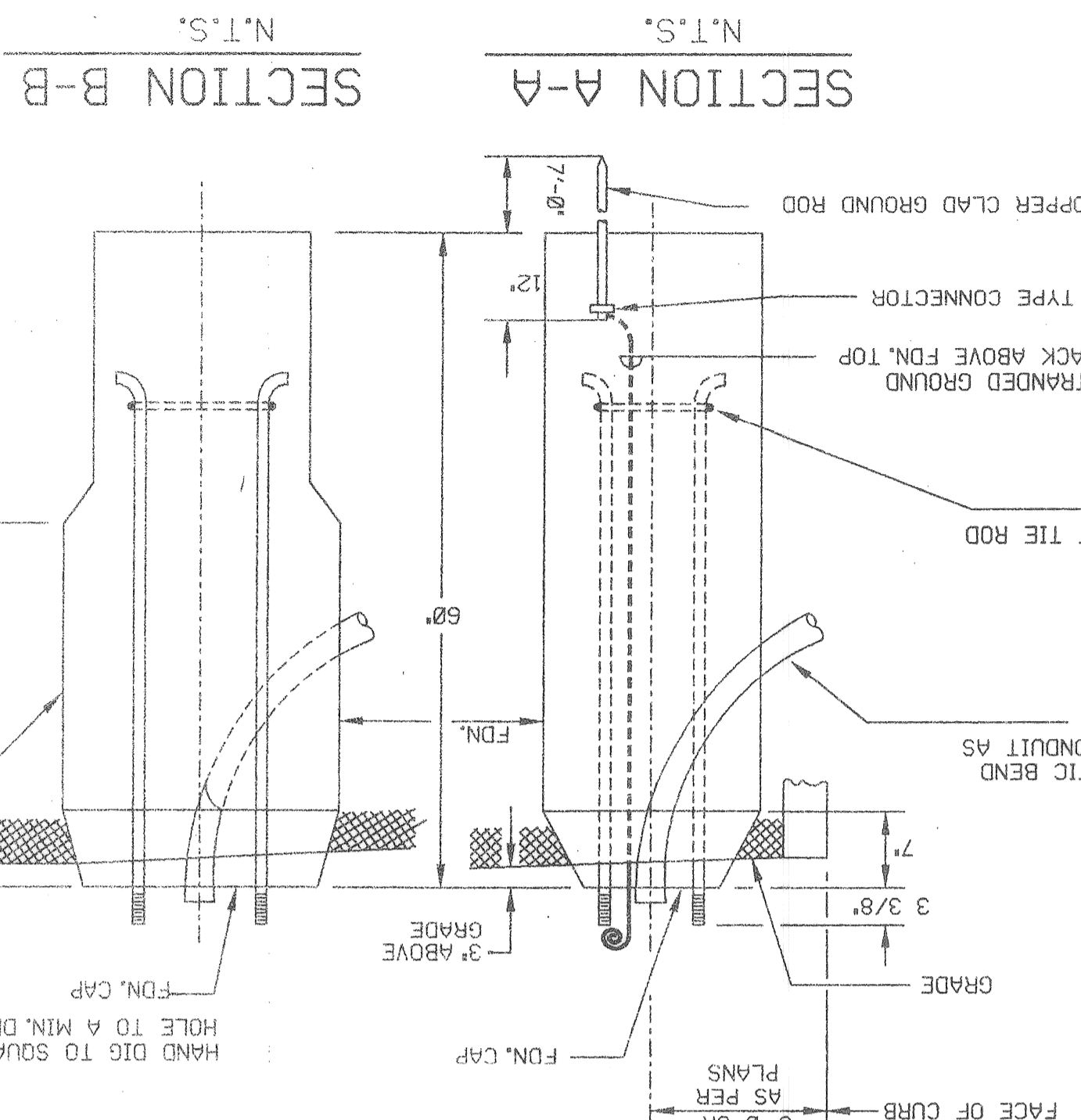
P.L.D. UNIVERSAL STEEL TRANSFORMER BASE  
N.T.S.



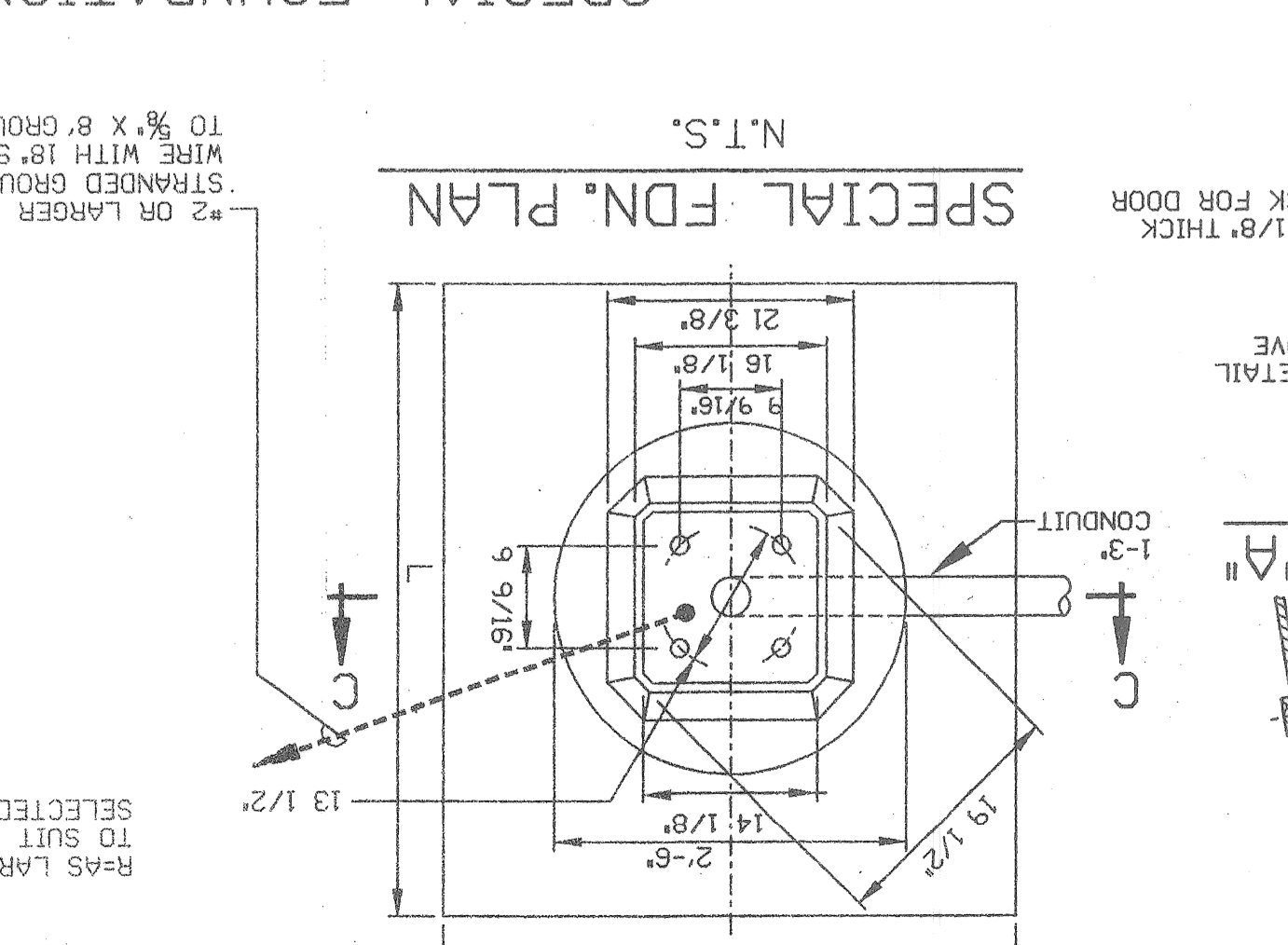
HANDHOLE COVER DETAIL  
N.T.S.



ANCHOR BASE STD. FOUNDATION  
N.T.S.

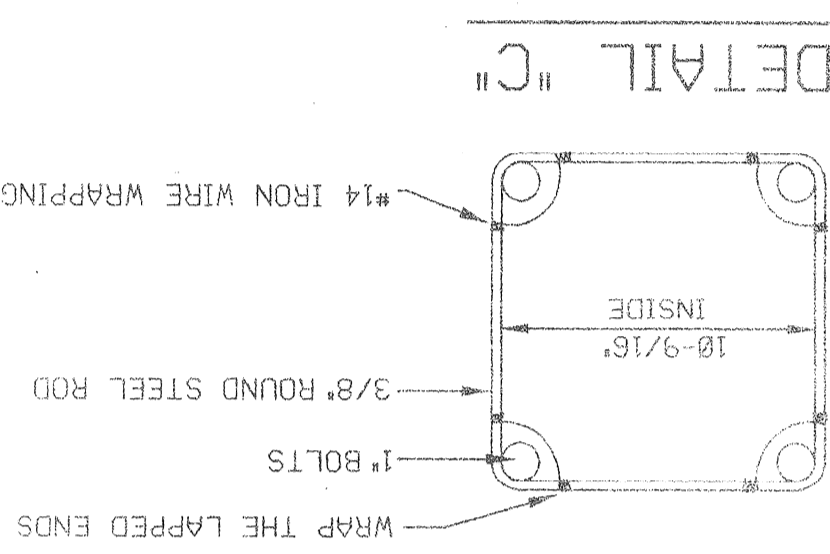


SPECIAL FOUNDATION  
N.T.S.

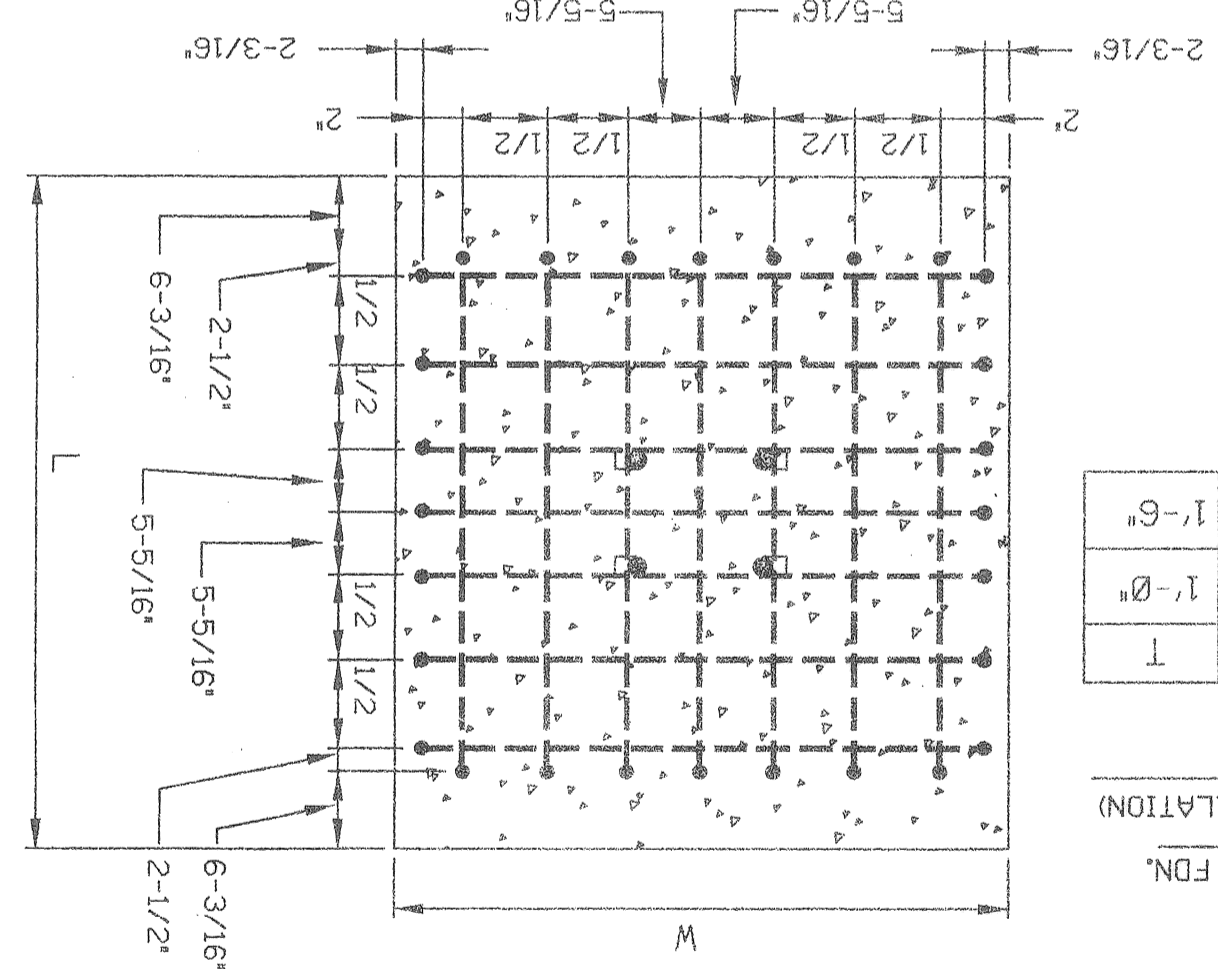


ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.

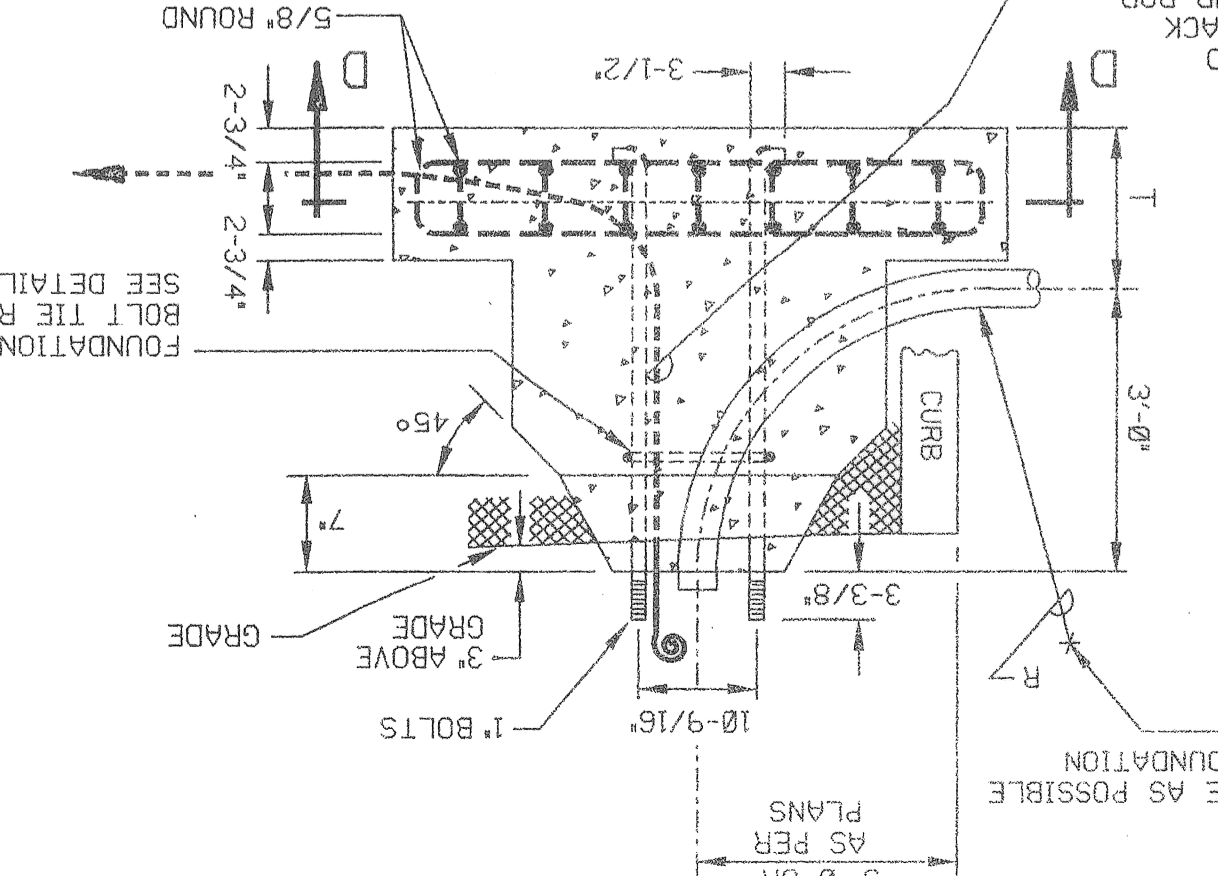
FDN. BOLT TIE ROD  
N.T.S.



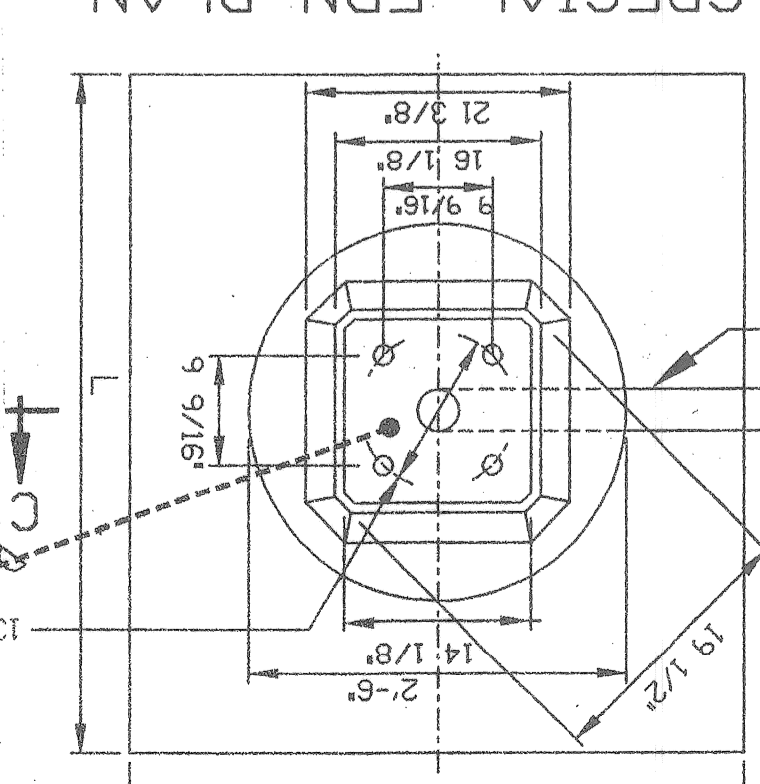
SECTION D-D  
N.T.S.



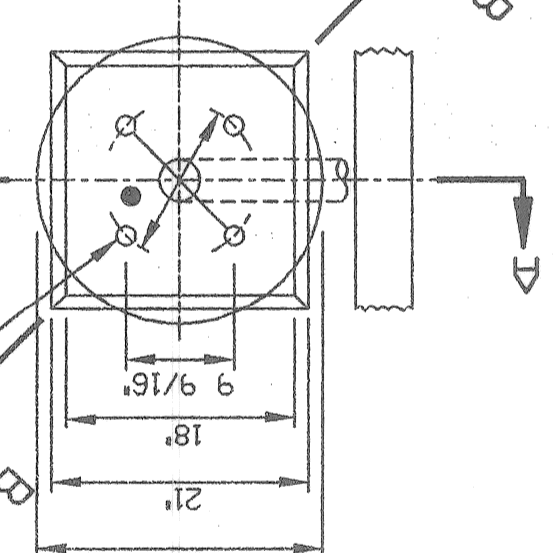
SECTION C-C  
N.T.S.



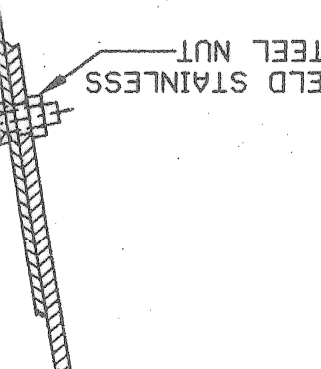
SPECIAL FDN. PLAN  
N.T.S.



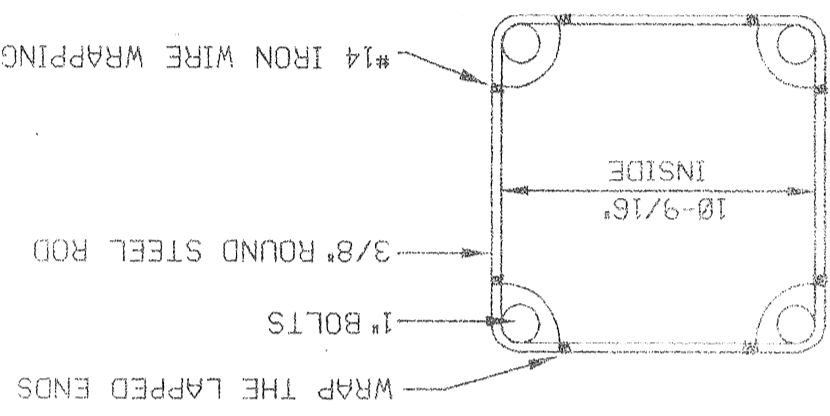
FDN. PLAN  
N.T.S.



DETAIL A-A  
N.T.S.



DETAIL C-C  
N.T.S.



L	W	T
5'-0"	4'-3"	1'-0"
4'-6"	3'-6"	1'-6"

THERE SHALL BE NO EXTRA PAYMENT FOR SPECIAL FDN. (TO BE PAID FOR AS A NORMAL ST. LTO STD. FDN. INSTALLATION)

BASE PLATE SHALL HAVE THE MAX. CUTAWAY AS SHOWN & STILL DEVELOP FULL REQUIRED STRENGTH.

NOTES:  
1. TOP, BOTTOM & SIDES TO BE GALVANIZED STEEL AS PER MANUFACTURER.  
2. DOOR FASTENING SCREW TO BE ASTM SERIES 308 STAINLESS STEEL MIN. 1/4"-20 NC. HEX HEAD CAP SCREW ONLY.  
3. THE DOOR FASTENING METHOD SHALL USE ONLY STAINLESS STEEL MULTIPLE SCREWS WILL NO LONGER BE ALLOWED TO INSURE PROPER FIELD INSTALLATION AND OPERATION.

24" RADIUS PLASTIC BEND  
NO. & SIZE OF CONDUIT AS SHOWN ON PLANS

FOUNDATION BOLT TIE ROD  
SEE DETAIL 'C'

WELD 3/4" NIPPLE IN CLAMP & SMOOTH ALL EDGES FOR WIRE ENTRANCE. DRILL ST. LTO STD. NIPPLE TO ACCOMMODATE SHAFT TO CLAMP.

WELD 3/4" NIPPLE IN CLAMP & SMOOTH ALL EDGES FOR WIRE ENTRANCE. DRILL ST. LTO STD. NIPPLE TO ACCOMMODATE SHAFT TO CLAMP.

WELD 3/4" NIPPLE IN CLAMP & SMOOTH ALL EDGES FOR WIRE ENTRANCE. DRILL ST. LTO STD. NIPPLE TO ACCOMMODATE SHAFT TO CLAMP.

WELD 3/4" NIPPLE IN CLAMP & SMOOTH ALL EDGES FOR WIRE ENTRANCE. DRILL ST. LTO STD. NIPPLE TO ACCOMMODATE SHAFT TO CLAMP.







G E N E R A L I N F O R M A T I O N

39. WHERE UNDERGROUND UTILITIES INTERFERE WITH THE INSTALLATION OF A NEW FOUNDATION, INSTALLED THE SPECIAL FOUNDATION OF PARTICULAR DIMENSIONS AS INDICATED ON THE DETAIL DRAWG. TO SUIT THE FIELD CONDITION, THERE WILL BE NO EXTRA PAYMENT FOR THE SPECIAL FOUNDATION, IT WILL BE PAID FOR AS A NORMAL FOUNDATION.
40. ALL NEW CONDUIT RUNS SHALL BE BUILT STRAIGHT AS POSSIBLE BENDS SHALL HAVE NO LESS THAN 7.925m (26') RADIUS AND NO REVERSE OR "S" BENDS.
41. WHERE TRIMMING OF TREES ON CITY PROPERTY IS CALLED FOR ON PLANS THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE REGISTRATION DEPT. OF THE CITY OF DETROIT AND SHALL HAVE SUCH WORK DONE BY A LICENSED TREE SERVICE CONTRACTOR. CALL (313) (931-3950).
42. ALL TREE TRIMMING REQUIRED TO CLEAR NEW OR SALVAGED STREET LIGHTING & TRAFFIC SIGNAL STD.'S AND O.H. ST. L.T.G. & TRAFFIC SIGNAL UNITS & O.H. WIRES SHALL BE INCLUDED WITH THE PAY-ITEM & NO EXTRA PAYMENT SHALL BE MADE.
43. WHERE IT IS SHOWN ON PLANS TO HAND DIG FOUNDATION, EXCAVATE BY HAND TOOLS ENTIRE DEPTH OF FOUNDATION, NO MECHANICAL EQUIPMENT SHALL BE USED.
44. CONTRACTOR SHALL NOTIFY THE P.L.D. SYSTEM OPERATION AT (313) (224-0500) & THE D.D.O.T. AFTER COMPLETION OF WORK AT ANY TRAFFIC SIGNAL INTERSECTION.
45. ALL CABLES SHALL BE TRAINED & PROPERLY RACKED IN ALL EXISTING MANHOLES & HANDHOLES. RACKS ARE TO BE INSTALLED WHERE NECESSARY & ARE INCLUDED IN THE INSTALLATION OF UNDERGROUND CABLE.
46. ALL CONDUITS NOT TERMINATING IN STRUCTURES SUCH AS MANHOLES, HANDHOLES OR FOUNDATIONS SHALL EXTEND .914m (3') BEYOND PAVEMENT LIMIT (EXCEPT AS OTHERWISE INDICATED). ALL UNOCCUPIED CONDUITS SHALL BE PLUGGED.
47. ALL NEW UNDERGROUND-FED STREET LIGHTING UNITS SHALL BE INSTALLED .762m (2.5') BACK OF FACE OF CURB UNLESS OTHERWISE INDICATED ON PLANS. VERIFY WITH P.L.D. D.S.R. STREETCAR RAILS AND FOUNDATIONS (TRACKS) ARE SHOWN ON THE PLANS IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. EXACT LOCATIONS WITHIN THE STREETS & INTERSECTIONS ARE NOT KNOWN. SOME RAILS MAY BE REMOVED.
48. THE "FINAL" CONDUIT MUST BE TRIMMED FLUSH WITH MANHOLE WALL, HAVE END BELLS INSPECTION BY THE P.L.D. UNDERGROUND INSPECTION DEPARTMENT.
49. INSTALL 5mm (3/16") DIAMETER YELLOW POLYPROPYLENE ROPE IN ALL "FINAL" CONDUIT. (INCLUDE IN PAY ITEM FOR "CONDUIT")
50. WHERE ABANDONING OF U.G. CABLES IS CALLED FOR ON PLANS OR DIAGRAMS, CONTRACTOR SHALL CUT & REMOVE CABLES WITHIN MANHOLES & HANDHOLES. FOR LOCATIONS OF P.L.D. INSTALLATIONS ON STRUCTURES SUCH AS CONDUITS STANDARD ANCHOR BOLTS SEE STRUCTURE PLANS.
31. WHERE REMOVAL OF LUMINAIRES OR HANDHOLES OVER EXISTING CONDUITS (TO ACCOMMODATE NEW & EXISTING CONDUITS) IS CALLED FOR ON PLANS, CONTRACTOR SHALL CAREFULLY & SO AS NOT TO DAMAGE EXIST. CABLES, REMOVE THE EXISTING CONDUITS & ENCASEMENT WITHIN HOLES. CABLES SHALL BE EXTENDED & PROPERLY TRAINED, RACKED & SUPPORTED.
32. PAVEMENT, SIDEWALK, CURB REMOVAL, REPLACEMENT AND EXCAVATION & BACKFILL SHALL BE DONE ACCORDING TO CITY OF DETROIT SPECIFICATIONS.
34. UNDERGROUND CABLE QUANTITIES ARE ITEMIZED ON GENERAL PLANS. ALL CABLES SHALL BE TAGGED IN ALL M.H.'S & H.H.'S. THIS INCLUDES EXIST. CABLES THAT ARE CONVERTED TO MULTIPLE, RECONNECTED TO OTHER CIRCUITS OR RENDERED DEAD.
35. ALL NEW SALVAGED & CONVERTED STREET LIGHTING STANDARDS SHALL BE PAINTED. ALL ST. L.T.G. UNITS INSTALLED ON THIS CONTRACT AND EXIST. STREET LIGHTING UNITS CONVERTED OR RE-CONNECTED TO OTHER CIRCUITS SHALL BE STENCILED OR RE-STENCILED AS SHOWN ON PLANS. (INCLUDED TO STREET LIGHTING UNITS)
37. STENCILING SHALL BE ON THE CURB SIDE OF THE POLE, LOCATED BETWEEN 1.219m (.4') AND 1.524m (.5') ABOVE GRADE. ALL LETTERS AND NUMBERS SHALL BE 50.8mm (2") IN HEIGHT. THE STENCILING SHALL BE DONE WITH A WEATHER-RESISTANT ENAMEL: BLACK ENAMEL ON GRAY COLORED OR ALUMINUM POLES, AND YELLOW OR WHITE ENAMEL ON BLACK OR BRONZE COLORED POLES.
38. ALL REMOVED TRAFFIC SIGNAL AND STREET LIGHTING EQUIPMENT SHALL BE SALVAGED IN REUSABLE CONDITION AND SHALL BECOME PROPERTY OF P.L.D. ALL REMOVED MATERIAL WILL BE STORED ON SITE FOR PICK-UP BY THE CONTRACTOR FOR DISPOSAL AWAY FROM THE SITE.

HAND DIG ENTIRE DEPTH OF ALL STEEL STRAIN POLE & MAST ARM STANDARD FOUNDATIONS.

ALL REMOVED TRAFFIC SIGNAL AND STREET LIGHTING EQUIPMENT SHALL BE SALVAGED IN REUSABLE CONDITION AND SHALL BECOME PROPERTY OF P.L.D. ALL REMOVED MATERIAL WILL BE STORED ON SITE FOR PICK-UP BY THE CONTRACTOR FOR DISPOSAL AWAY FROM THE SITE.

ITEM NO.	ITEM DESCRIPTION	QUANTITIES
8200065	FDN, REM	1 EA
8200110	PEDESTAL, REM	1 EA
8127050	REMOVING STREETCAR RAIL AND FOUNDATION	1 EA
8200165	STRAIN POLE STEEL, ANCHOR FDN	2 EA
8200105	PEDESTAL, FDN	2 EA
8200025	CONDUIT REPAIR, UNDER PAVEMENT	1 EA
8200026	CONDUIT REPAIR, UNDER SIDEWALK OR DIRT	1 EA

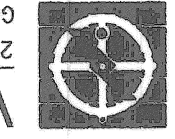
THE ITEMS AND QUANTITIES LISTED ABOVE SHALL APPLY TO ALL LOCATIONS AS DIRECTED BY THE ENGINEER.

1. CALL MISS DIG (313) (647-7344) 3 WORKING DAYS PRIOR TO ANY EXCAVATION FOR THE LOCATIONS OF UNDERGROUND UTILITIES.
2. A MINIMUM CLEARANCE OF 1.07m (3.5') HORIZONTAL & EXISTING U.G. WATER FACILITIES. CONTRACTOR TO NOTIFY MICHIGAN CONSOLIDATED GAS CO. AT (313) 491-6301 IF PROTECTIVE COATED GAS MAIN IS EXPOSED OR DAMAGED.
3. CONTRACTOR TO NOTIFY MICHIGAN CONSOLIDATED GAS CO. AT (313) 237-9664 IF PROTECTIVE COATING OF ANY D.E.CO. HIGH VOLTAGE UNDERGROUND LINE IS EXPOSED OR DAMAGED.
4. ALL EXISTING P.L.D. LIGHTING, TRAFFIC SIGNAL, PRIMARY, TRANSMISSION ETC. CIRCUITS SHALL BE MAINTAINED IN AN OPERATIONAL CONDITION (EXCEPT WHERE OTHERWISE NOTED). NOTIFY P.L.D. SYSTEM OPERATOR AT (313) 224-0500 48 HOURS PRIOR TO BEGINNING WORK ON P.L.D. CIRCUITS & KEEP HIM INFORMED ON A DAILY BASIS.
5. EXISTING OVERHEAD & TRAFFIC SIGNAL FACILITIES ARE NOT NECESSARILY SHOWN ON PLANS. (INCLUDED WITH THE REMOVAL OF OVERHEAD LINES).
7. CROSSARMS SHALL BE REMOVED AFTER ALL CONTACTS ARE REMOVED.
8. ALL OVERHEAD WIRES & UNDERGROUND CABLES SHALL CONSIST OF COPPER CONDUCTORS AS PER SPECIFICATIONS.
9. ALL REMOVED WOOD POLES & CROSSARMS SHALL BE DISPOSAL BY P.L.D. THE CONTRACTOR AT A PROPER SITE.
10. ALL NEW ANCHOR GUYS SHALL BE INSTALLED ON A 1:1 RATIO OR AS NEARLY AS POSSIBLE (EXCEPT WHERE OTHERWISE NOTED). (STRAUT GUYS ARE ACCEPTED).
11. ARM GUYS SHALL BE SIEMENS-MARTIN GRADE. ANCHOR AND POLE GUYS SHALL BE EXTRA HIGH STRENGTH GRADE.
12. INSTALL WOOD POLES SO AS NOT TO INTERFERE WITH TRAFFIC OR FUTURE CONSTRUCTION STAGES.
13. ALL SALVAGED WOOD DIRECTED TO BE INSTALLED SHALL BE POLES PREVIOUSLY INSTALLED NEW ON THIS CONTRACT.
14. ALL TRANSFORMER POLES AND CABLE Poles SHALL BE FITTED UP WITH 3.048m (10'") ARMS (EXCEPT WHERE OTHERWISE INDICATED).
15. INSTALLATION OF ARMS FOR EQUIPMENT, CUTOUTS, POTHEADS, TRANSFORMER, ETC. NOT SHOWN ON NEW CABLE AND TRANSFORMER POLES SHALL BE INCLUDED IN THE FITTING-UP OF THE DETAIL DRAWG. REQUIREMENT AND SHALL BE INCLUDED IN THE FITTING-UP OF THE CABLE AND/OR TRANSFORMER POLE.
16. ALL POTHEADS ON PRIMARY DISTRIBUTION CABLE Poles SHALL BE FLAT DIVERGENT DISCONNECTING TYPE.
17. WHERE A P.L.D. WOOD UTILITY CONTACTS IS TO BE REMOVED THE P.L.D. INSPECTOR WILL INDICATE IF THE POLE IS IN FACT TO BE REMOVED.
18. ALL TRAFFIC STREET SIGNS SUCH AS "NO PARKING", "NO STANDING" ETC. SHALL BE TRANSFERRED FROM OLD STD. OR POLE TO NEW STD. OR POLE AT SAME LOCATION OR IN CLOSE PROXIMITY BY D.D.O.T.
19. ALL TRAFFIC SIGNALS SHALL BE MOUNTED WITH NEW STANDARD TRAFFIC SIGNAL BRACKETS & FITTINGS.
20. ALL TRAFFIC SIGNAL ITEMS AS CALLED FOR ON PLANS, SHALL INCLUDE AS INCIDENTAL TO THE TRAFFIC SIGNAL ALL CABLES FROM THE CONTROLLER TO THE TRAFFIC SIGNALS & FOUNDATIONS AS INDICATED.
21. WHEN ENTERING PROPOSED CONDUIT INTO EXISTING MANHOLES & HANDHOLES EXERCISE CAUTION NOT TO DISTURB EXISTING CABLES. WALLS SHALL BE CORE DRILLED ONLY FOR ENTRANCE OF CONDUITS. NEW CONDUITS SHALL NOT INTERFERE WITH RACKING AND / OR TRAINING OF CABLES.

DATE	REVISION	BY	DATE	REVISION	BY
05/27/03	ISSUE	PCJ	05/27/03	ISSUE	PCJ
07/20/03	REVISION	PCJ	07/20/03	REVISION	PCJ



CITY OF DETROIT  
DEPARTMENT OF PUBLIC LIGHTING



Wade-Trim, Inc.  
2944 Fuller NE  
Grand Rapids, MI 49505  
616-963-8181 1-800-931-9135

NO.	FILE NO.	SHEET NO.	OF	SCALE	TITLE
003	003	39	03	NA	GENERAL INFORMATION



FOR INFORMATION

NO.	ITEM	QUANTITIES
1	Controller and Cabinet, Rem	1 Ea
2	Fdn, Rem	3 Ea
3	Mast Arm, Rem	2 Ea
4	Mast Arm Std, Rem	1 Ea
5	Pedestal, Rem	2 Ea
6	TS, Mast Arm Mtd, Rem	2 Ea
7	TS, Pedestrian, Bracket Arm Mtd, Rem	3 Ea
8	TS, Pedestrian, Pedestal Mtd, Rem	1 Ea
9	Cable, Sec, Rem	66 Ft
10	Cable Pole, Sec, Disman	1 Ea
11	Wood Pole, Rem	1 Ea
12	Wood Pole	2 Ea

LIST OF MATERIAL

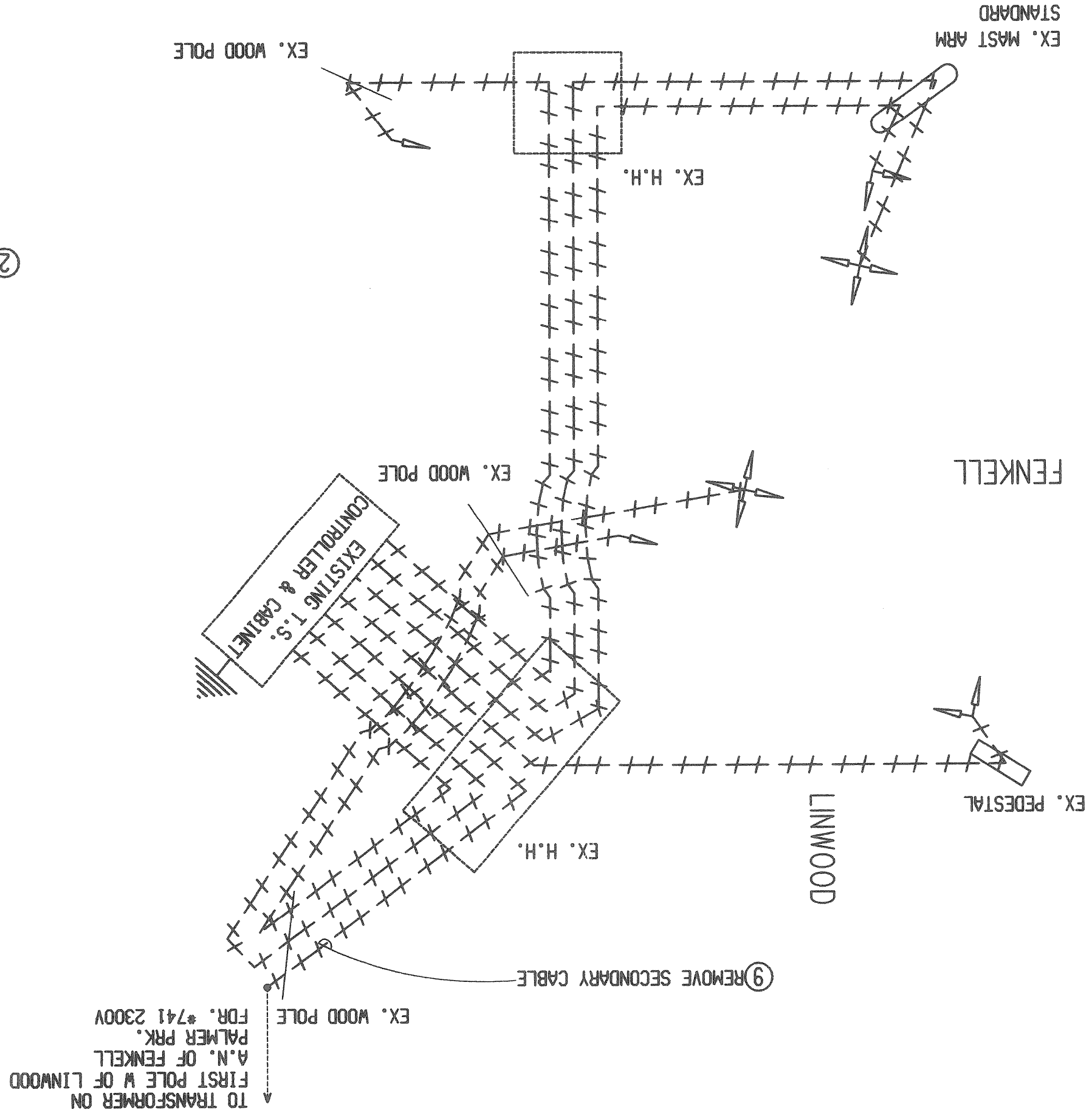
NOTE: EXISTING TRAFFIC SIGNAL TO REMAIN IN OPERATION UNTIL SUCH TIME THAT THE NEW T.S. IS PUT INTO OPERATION. EXISTING T.S. FACILITIES TO BE REMOVED IMMEDIATELY AFTER NEW T.S. IS PUT INTO OPERATION.

NOTE: ALL STREET LIG EQUIPMENT ON REMOVED/REPLACED WOOD POLES, OR T.S. STANDARDS MUST BE TRANSFERRED TO THE NEW WOOD POLES OR T.S. STANDARDS.

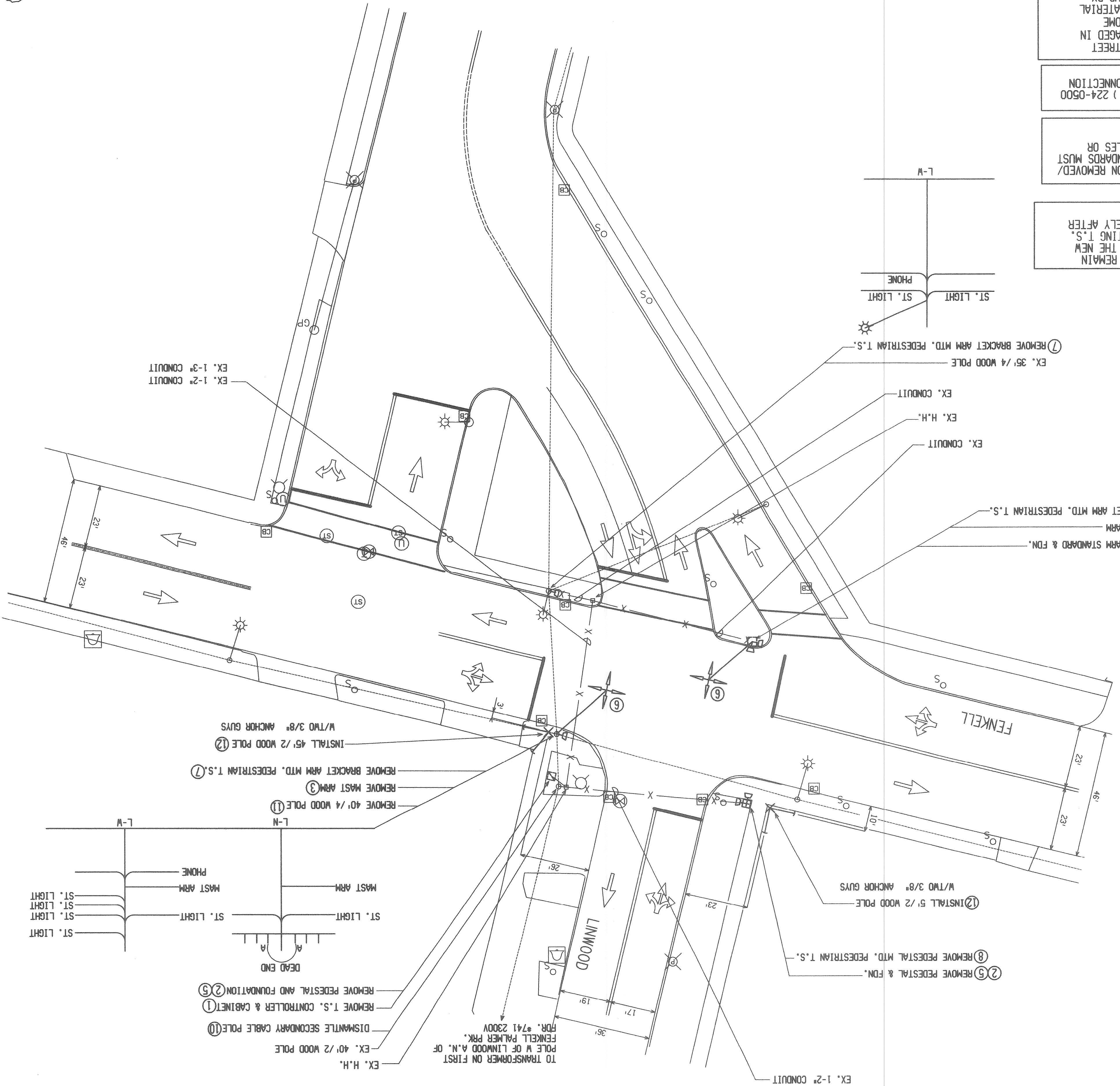
CONTACT: SYSTEM OPERATOR AT (313) 224-0500 OF PLD FOR ELECTRIC SERVICE DISCONNECTION.

ALL REMOVED TRAFFIC SIGNAL AND STREET LIGHTING EQUIPMENT SHALL BE SALVAGED IN REUSABLE CONDITION AND SHALL BECOME PROPERTY OF P.L.D. ALL REMOVED MATERIAL WILL BE STORED ON SITE FOR PICK-UP BY P.L.D. ALL MATERIAL LEFT FOR THE CONTRACTOR FOR DISPOSAL AWAY FROM THE SITE.

REMOVAL WIRING DIAGRAM  
NOT TO SCALE



REMOVAL DIAGRAM  
1" = 20'



STATE LAW ACT 53  
 3 WORKING DAYS  
 BEFORE YOU DIG  
 CALL MISS D161  
 TOLL FREE  
 800-482-7171











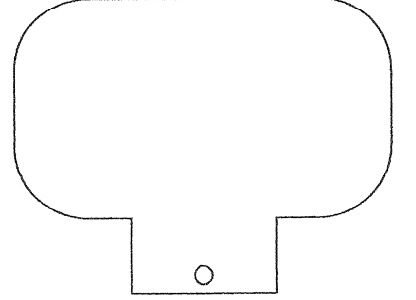




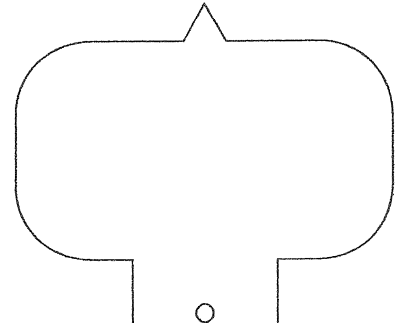




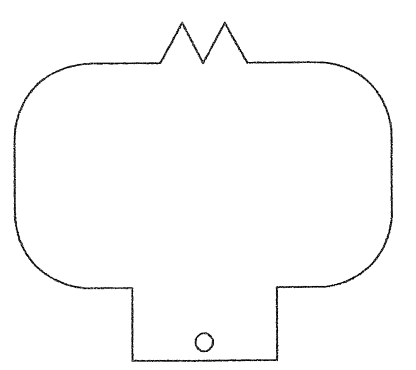
MISCELLANEOUS



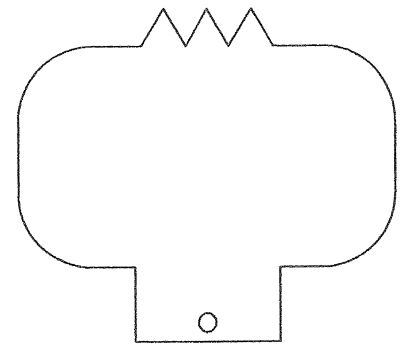
2400 VOLT FEEDER



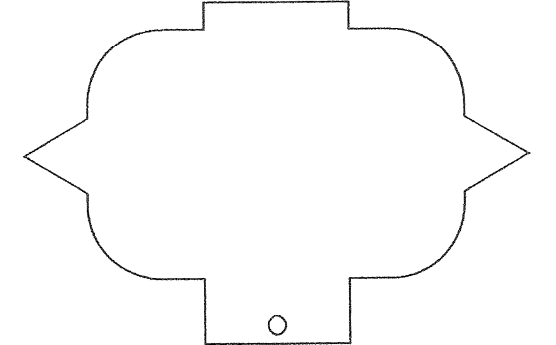
4800 & 5500 VOLT FEEDER



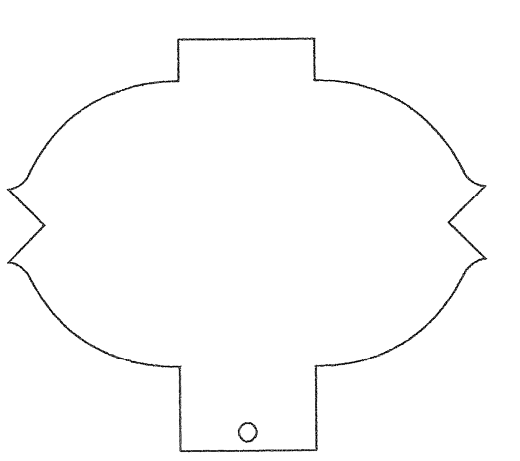
7200 VOLT FEEDER



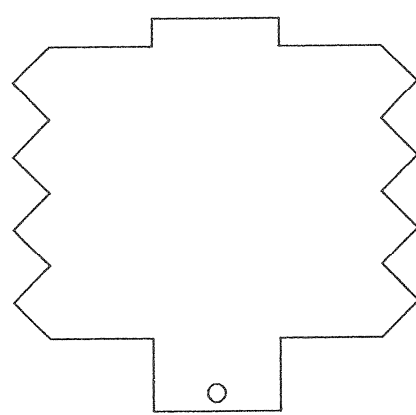
13200 VOLT FEEDER



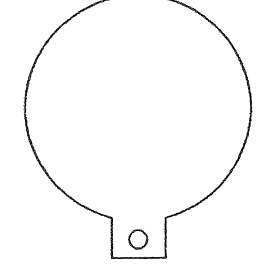
24,000 VOLT FEEDER



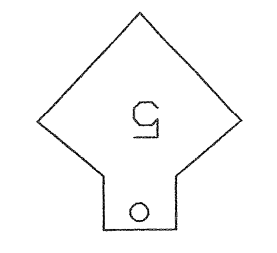
24,000 VOLT TRUNK LINE



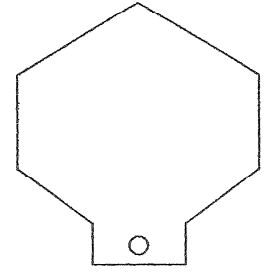
ST. LTG. CIRC. NUMBER



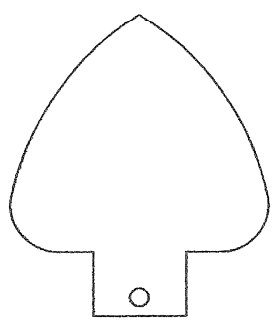
ST. LTG. COND. NO. (FROM 8/C CABLE)



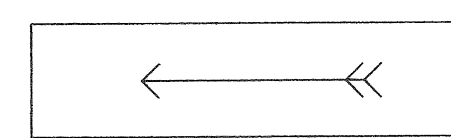
MULTIPLE LTG, CONTROL



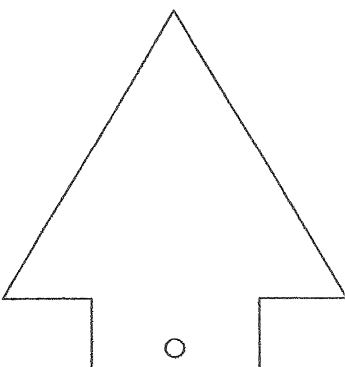
8/C COND. CABLE



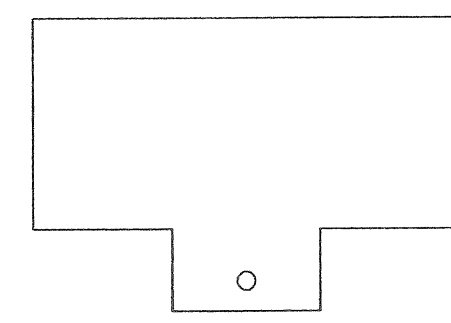
CIRCUIT DIRECTION



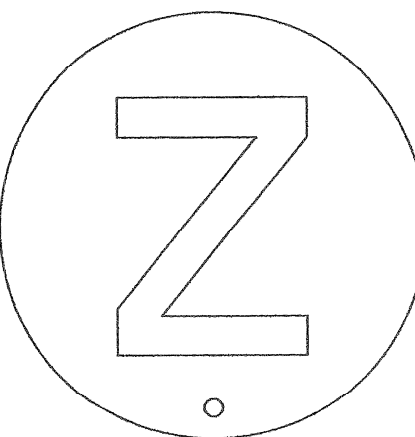
DEAD CABLE



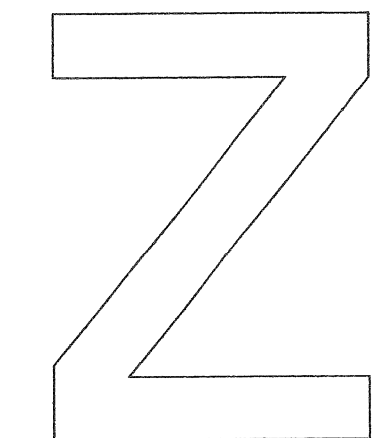
SUPERVISORY CONTROL



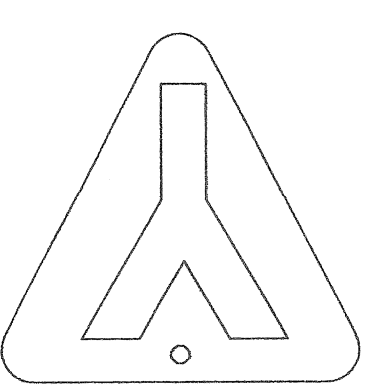
0.H. LINE OR POTHEAD PHASE TAG



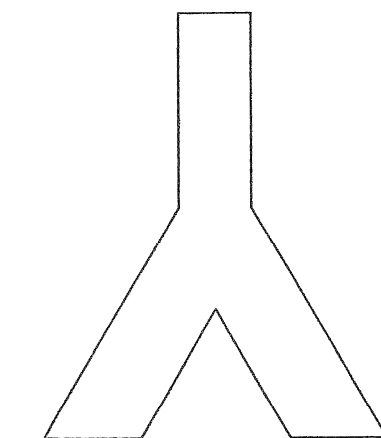
0.H. LINE PHASE TAG



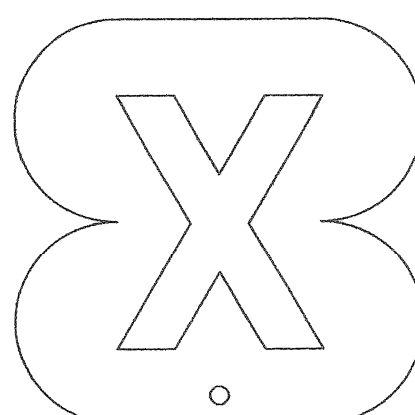
0.H. LINE OR POTHEAD PHASE TAG



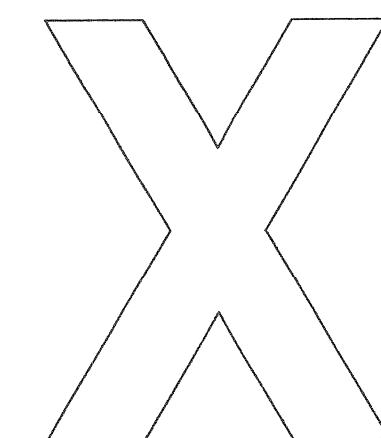
0.H. LINE PHASE TAG



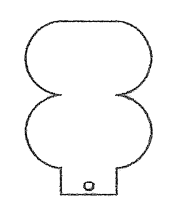
0.H. LINE OR POTHEAD PHASE TAG



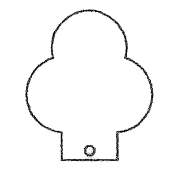
0.H. LINE PHASE TAG



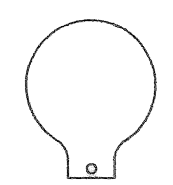
TRAFFIC SIGNAL CHRONOLIZER



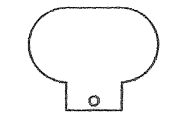
SECONDARY POWER TO SAFETY ISLANDS & TRAFFIC SIGNALS



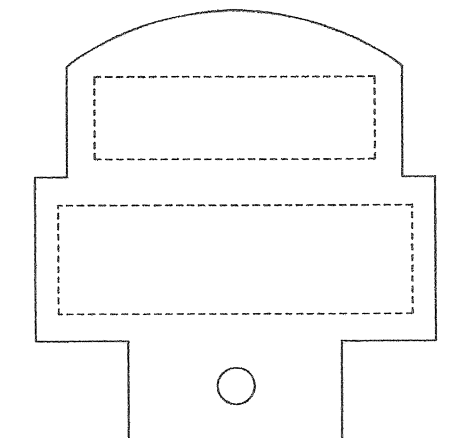
TRAFFIC SIGNALS



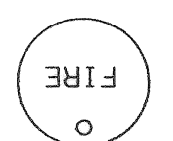
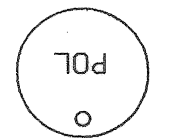
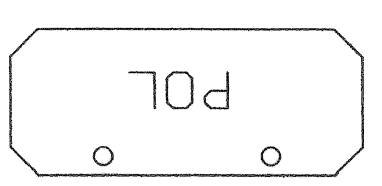
MULTIPLE INC. LTG.



MULTIPLE STREET LIGHTING ALL VOLTAGES



COMMUNICATION



LEAD CABLE IDENTIFICATION TAGS  
 WILL BE FURNISHED TO CONTRACTOR  
 BY P.L.D. CABLE TAG MARKINGS SUCH  
 AS SUBSTATION OR CABLE MARKINGS  
 WILL BE AS SHOWN ON PLANS OR WILL  
 BE FURNISHED BY P.L.D.

NOTE:

- |      |      |      |
|------|------|------|
| POR. | KSG. | BEL. |
| RUS. | LAB. | BUT. |
| STA. | LEE. | CAN. |
| STO. | LOT. | COB. |
| TOW. | LUD. | CON. |
| TRI. | MAP. | CUS. |
| TUR. | MCC. | GRF. |
| WAL. | MON. | HUD. |
| WSU. | PAL. | JSC. |
| JEF. | PHI. | JOY. |

SUBSTATION & CIRCUIT ABBREVIATIONS ON  
 IDENTIFICATION TAGS SHALL BE SPELLED  
 AS FOLLOWS

IDENTIFICATION TAGS  
 MATERIAL : LEAD















DATE	INITIALS	PCJ	05/27/03	REVISION	REVISION FROM 05/27/03 SUBMITTAL
DATE	INITIALS	PCJ	07/20/03	REVISION	REVISION FROM 07/20/03 SUBMITTAL
DATE	INITIALS	PCJ	07/20/03	REVISION	REVISION FROM 07/20/03 SUBMITTAL
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DATE	INITIALS	PCJ	07/20/03	REVISION	REVISION FROM 07/20/03 SUBMITTAL
DATE	INITIALS	PCJ	07/20/03	REVISION	REVISION FROM 07/20/03 SUBMITTAL

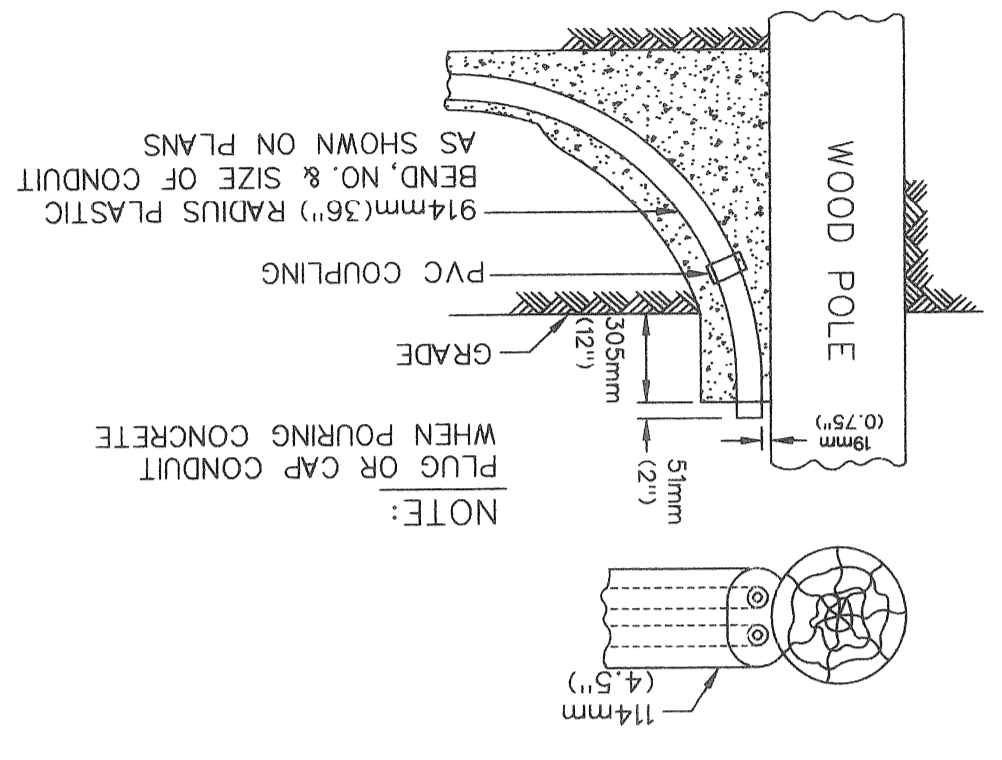


CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 PUBLIC LIGHTING

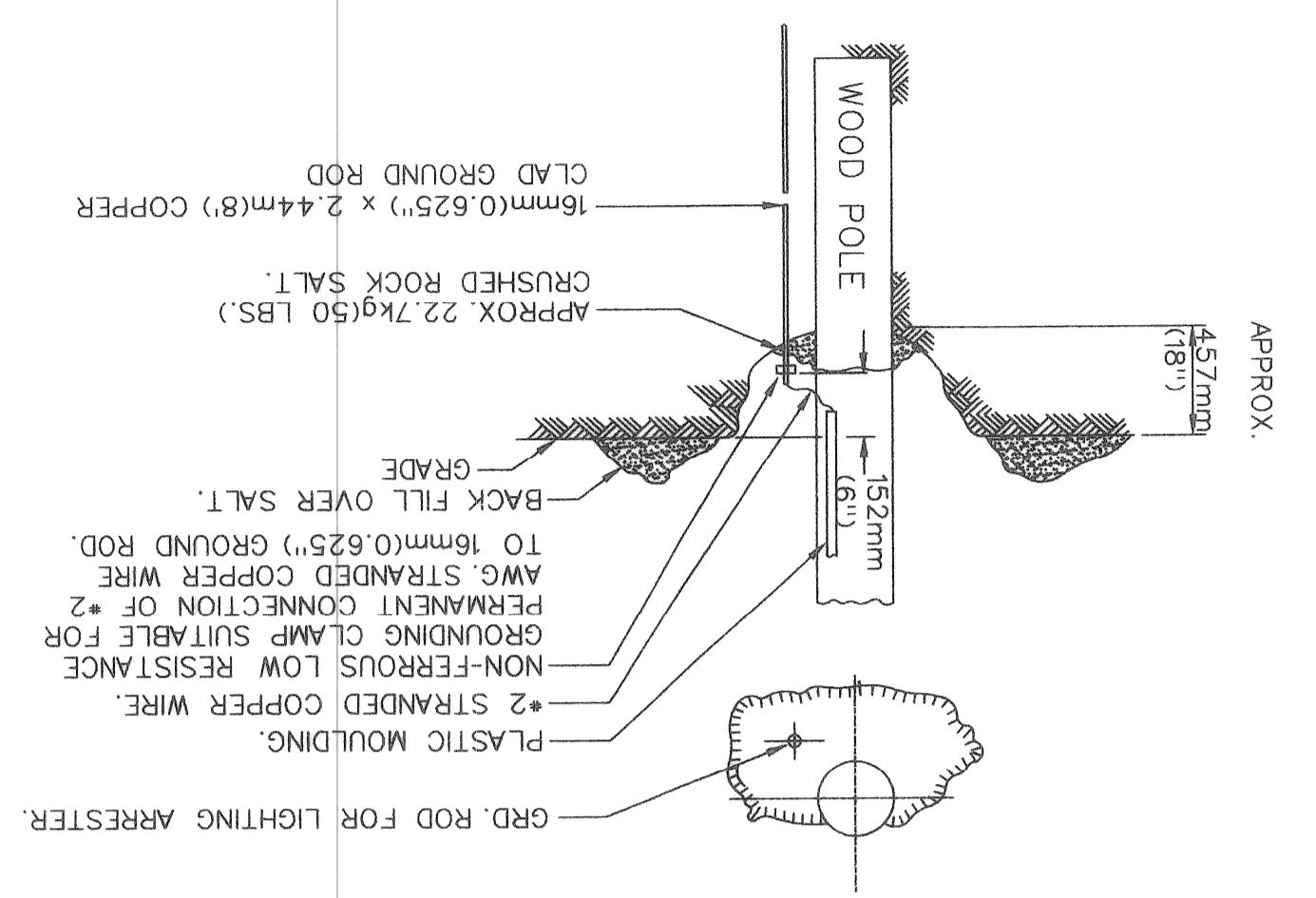
Wade-Trim, Inc.  
 2944 Fuller NE  
 Grand Rapids, MI 49505  
 616-363-8181 1-800-931-9135

MULTI-STLTG. DETAILS  
 (TRANSFORMER POLES)  
 TITLE

INSTALLATION OF CONDUIT  
 AT CABLE POLE  
 N.T.S.



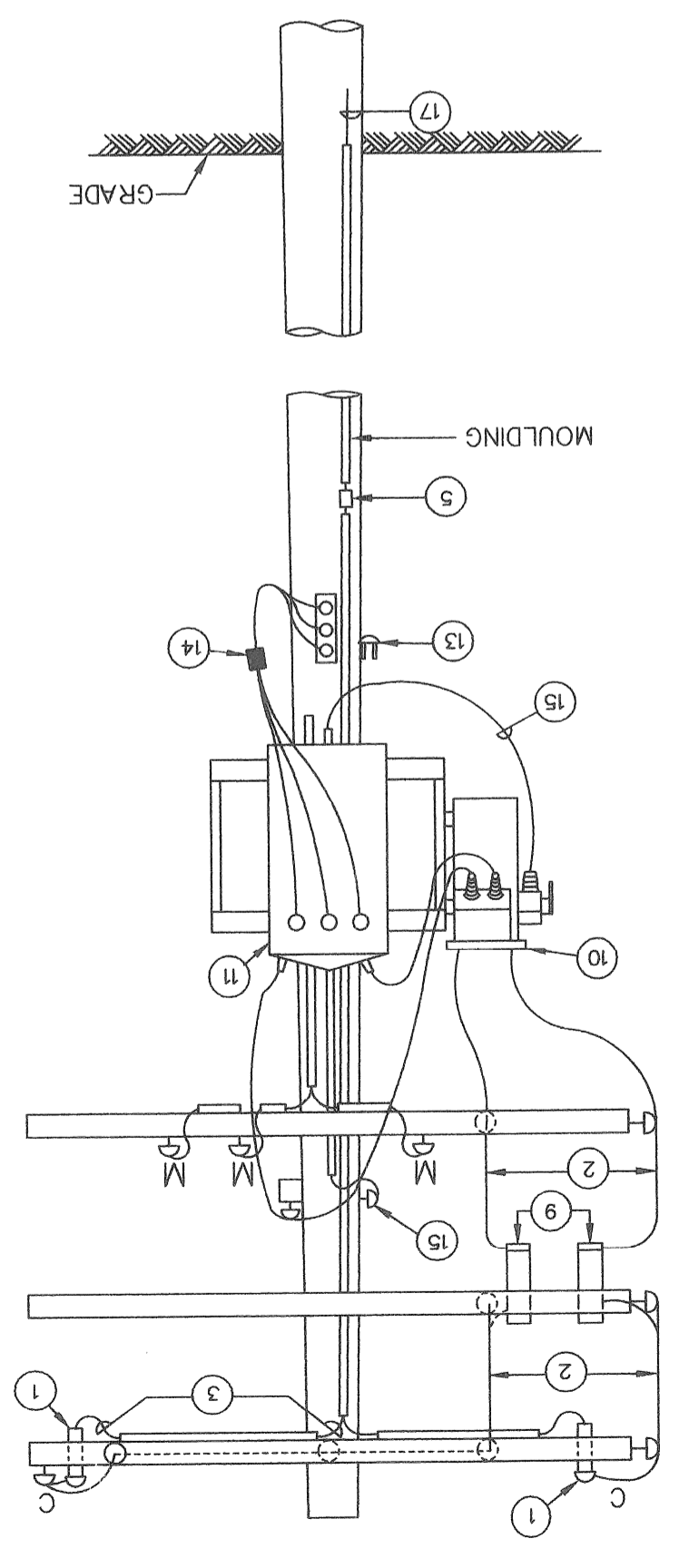
GROUND ROD INSTALLATION  
 N.T.S.



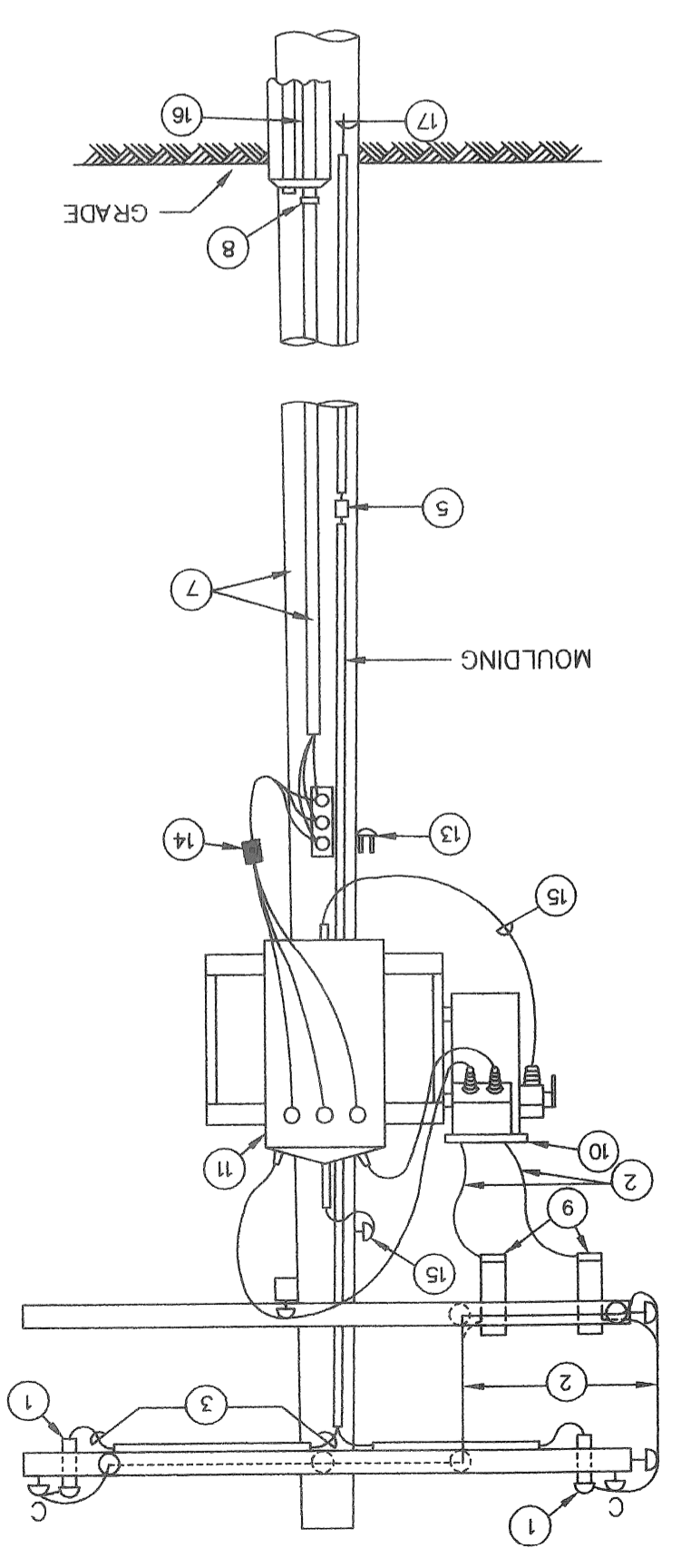
DETAIL ITEMS	
1	LIGHTNING ARRESTER
2	OVERHEAD TRAINING WIRE
3	* 2 GROUND WIRE UNDER MOULDING
4	LEAD WEATHERCAP & GALVANIZED BUSHING
5	FOUR SCREW CONNECTOR
6	102mm(4") PLASTIC CONDUIT
7	76mm(3") G.I.P. RISER
8	76mm(3") x 102mm(4") REDUCER ADAPTOR
9	100A ENCLOSED CUTOFF (FUSE AS SHOWN ON PLANS)
10	TRANSFORMER CONTROL SWITCH 20A. CONTROL
11	MULT. ST. LTG. TRANSFORMER(SIZE & RATING AS SHOWN ON PLANS)
12	120/240V. SEC. TRANSFORMER(SIZE & RATING AS SHOWN ON PLANS)
13	SECONDARY LIGHTING ARRESTER
14	C.T. S.I. IN-LINE FUSES(SIZE AS SHOWN ON PLANS)
15	* 8 TWIN CONTROL(FROM CONTROL COIL AS SHOWN ON PLANS)
16	914mm(36") RADIUS PLASTIC BEND NO. & SIZE OF CONDUIT AS SHOWN ON PLANS
17	* 2 STRANDED COPPER WIRE TO GROUND ROD

TRANSFORMER POLE &  
 CABLE POLE DETAILS

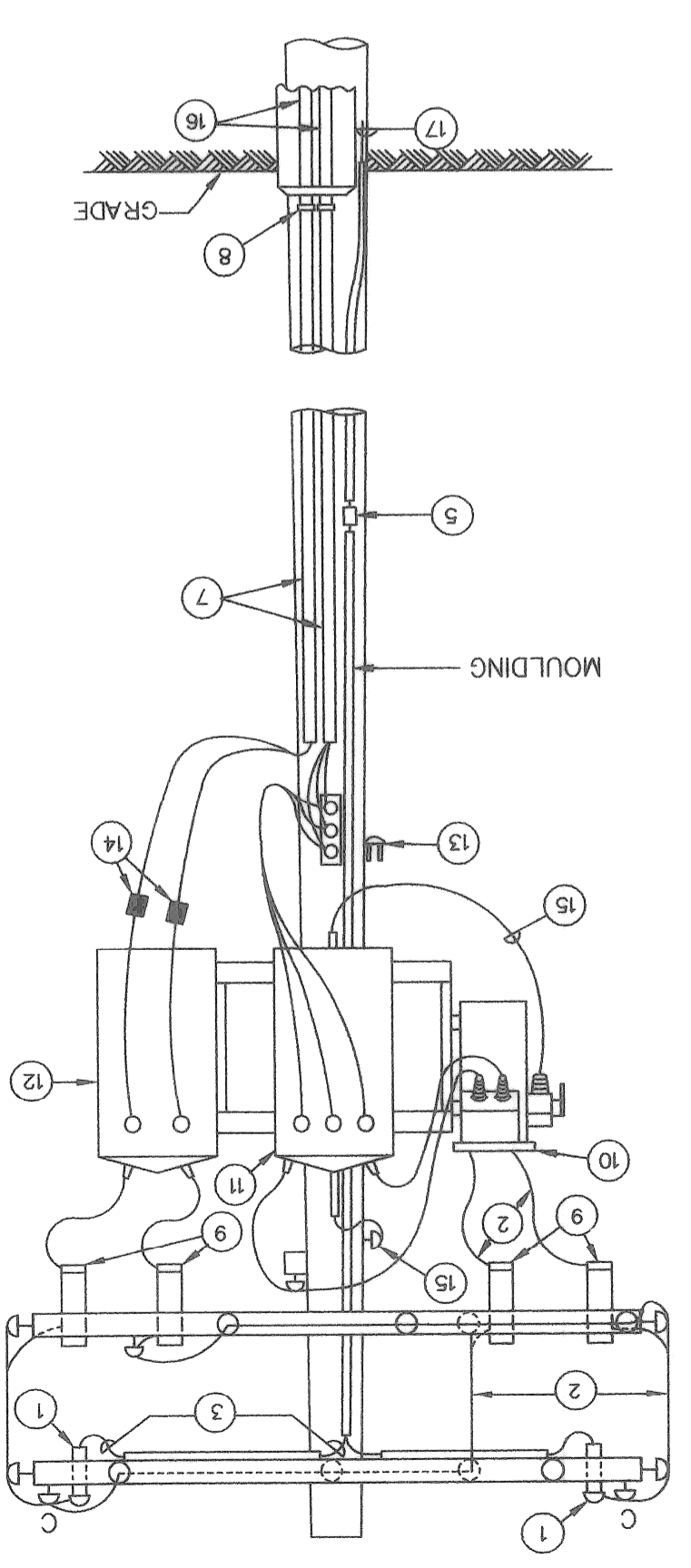
MULTI. ST. LTG. TRANSFORMER POLE  
 DETAIL "A"  
 N.T.S.



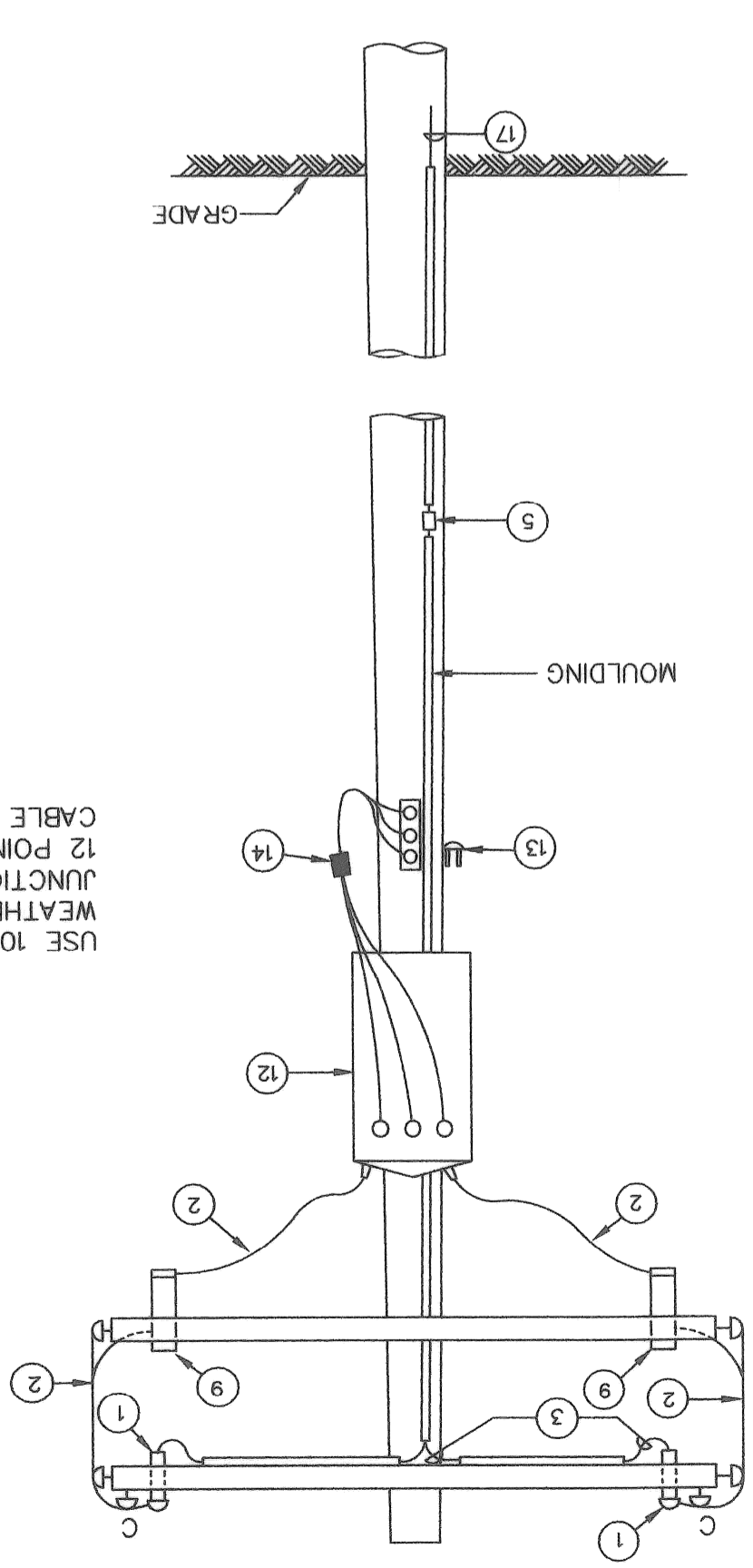
COMB. MULT. ST. LTG. TRANSFORMER POLE  
 & MULT. ST. LTG. CABLE POLE  
 DETAIL "B"  
 N.T.S.



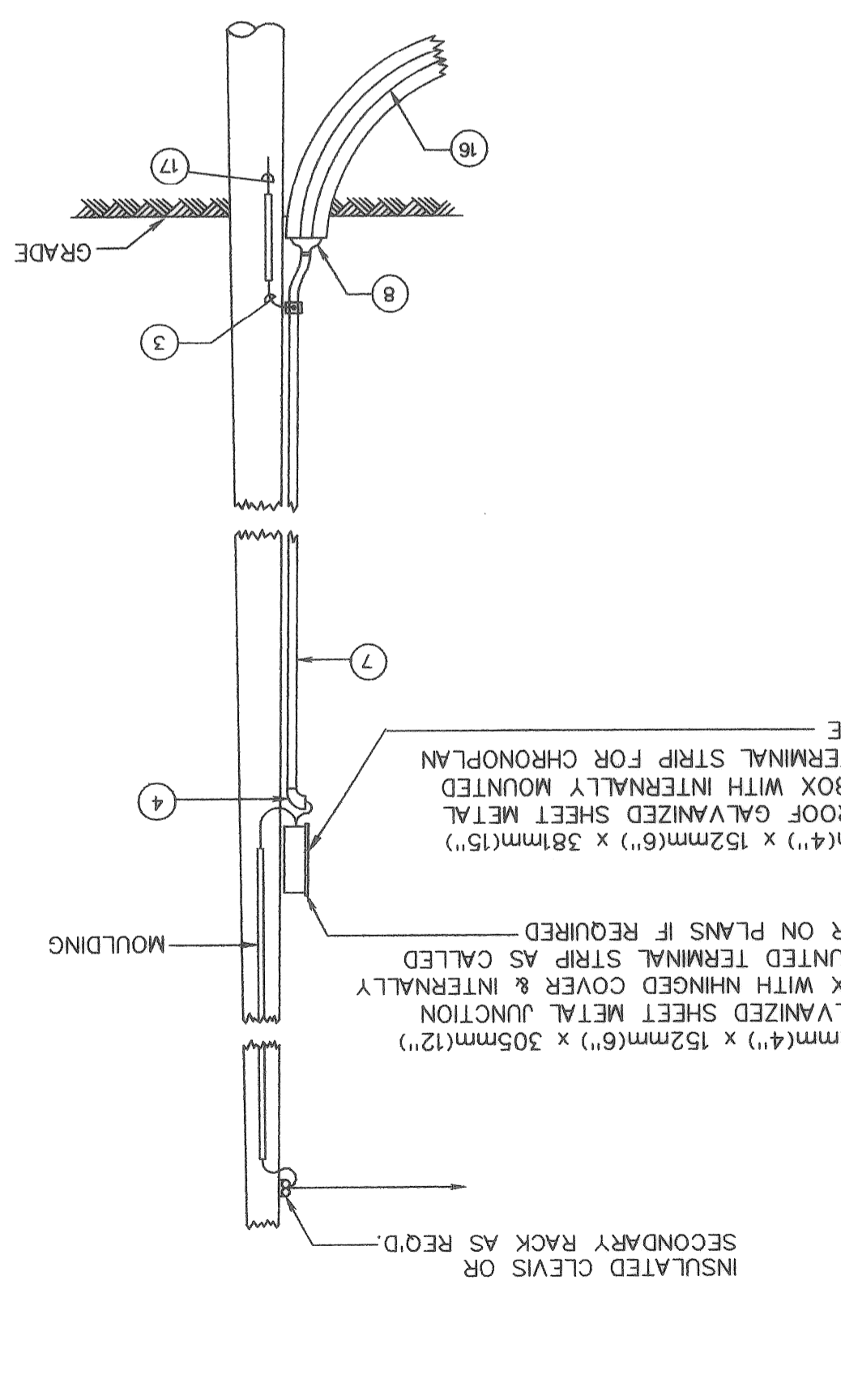
COMB. MULT. ST. LTG. TRANSFORMER POLE  
 TRANSFORMER POLE, MULT. ST. LTG. &  
 SECONDARY CABLE POLE  
 DETAIL "C"  
 N.T.S.



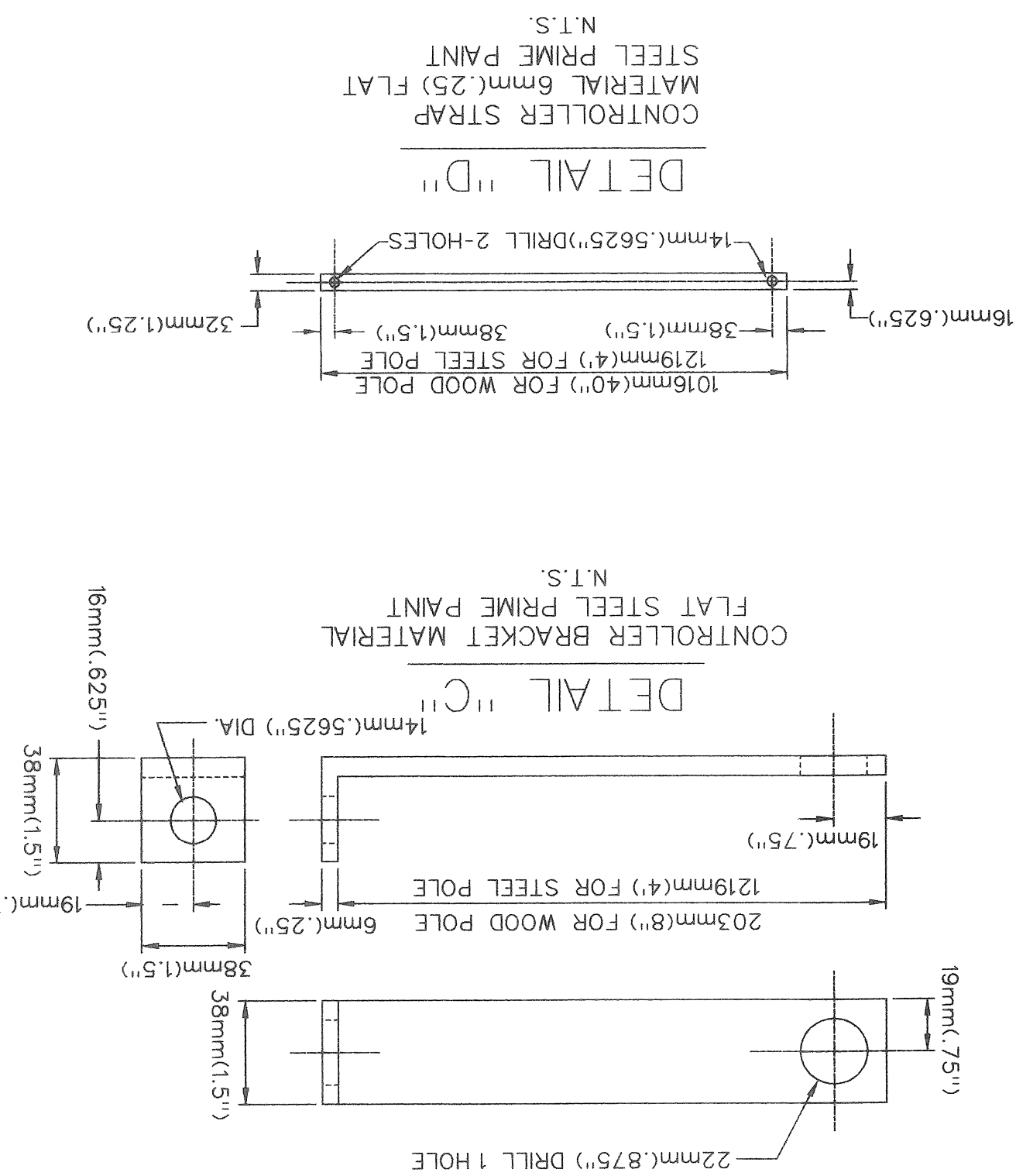
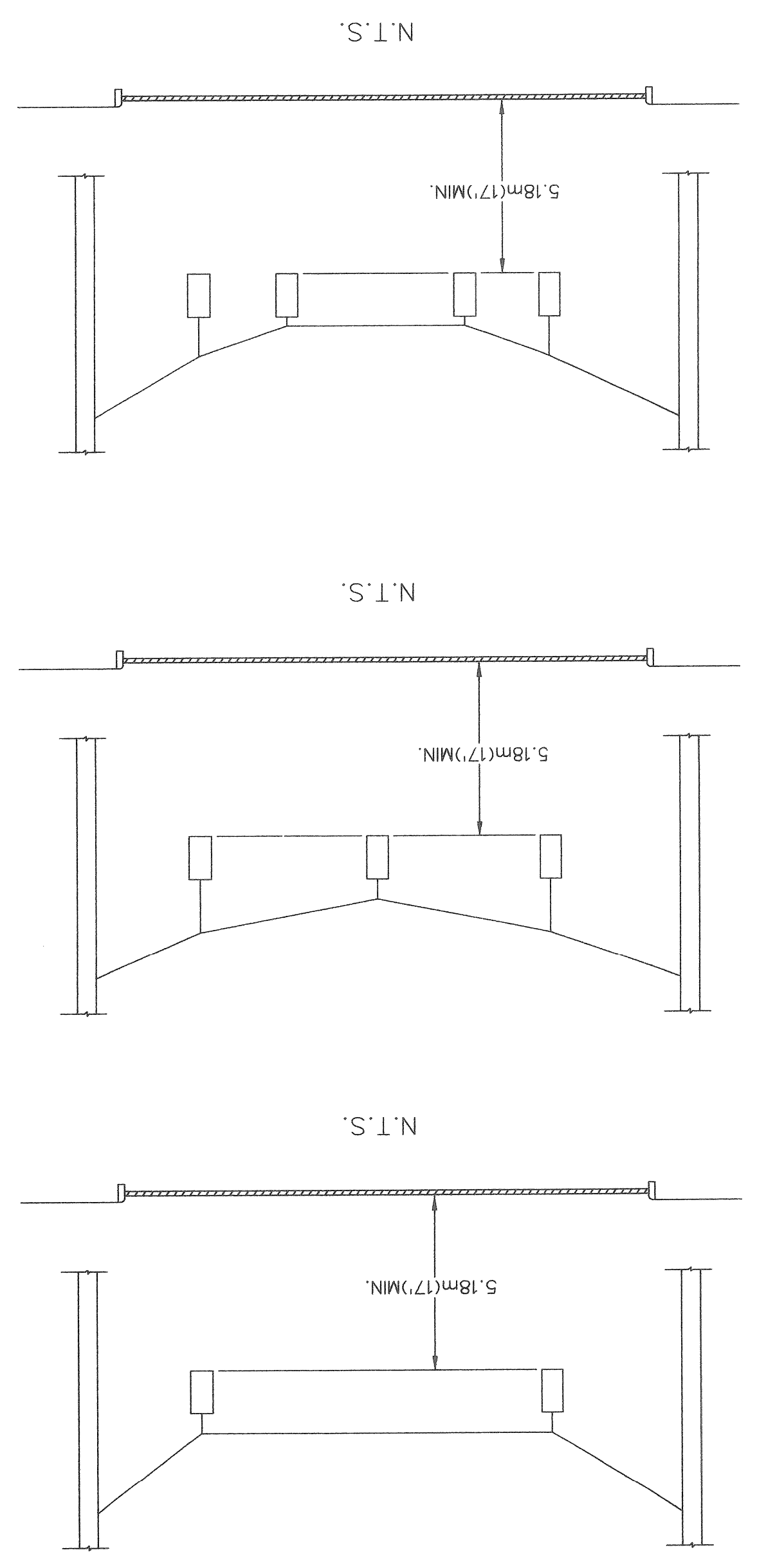
TRANSFORMER CABLE POLE  
 DETAIL "D"  
 N.T.S.



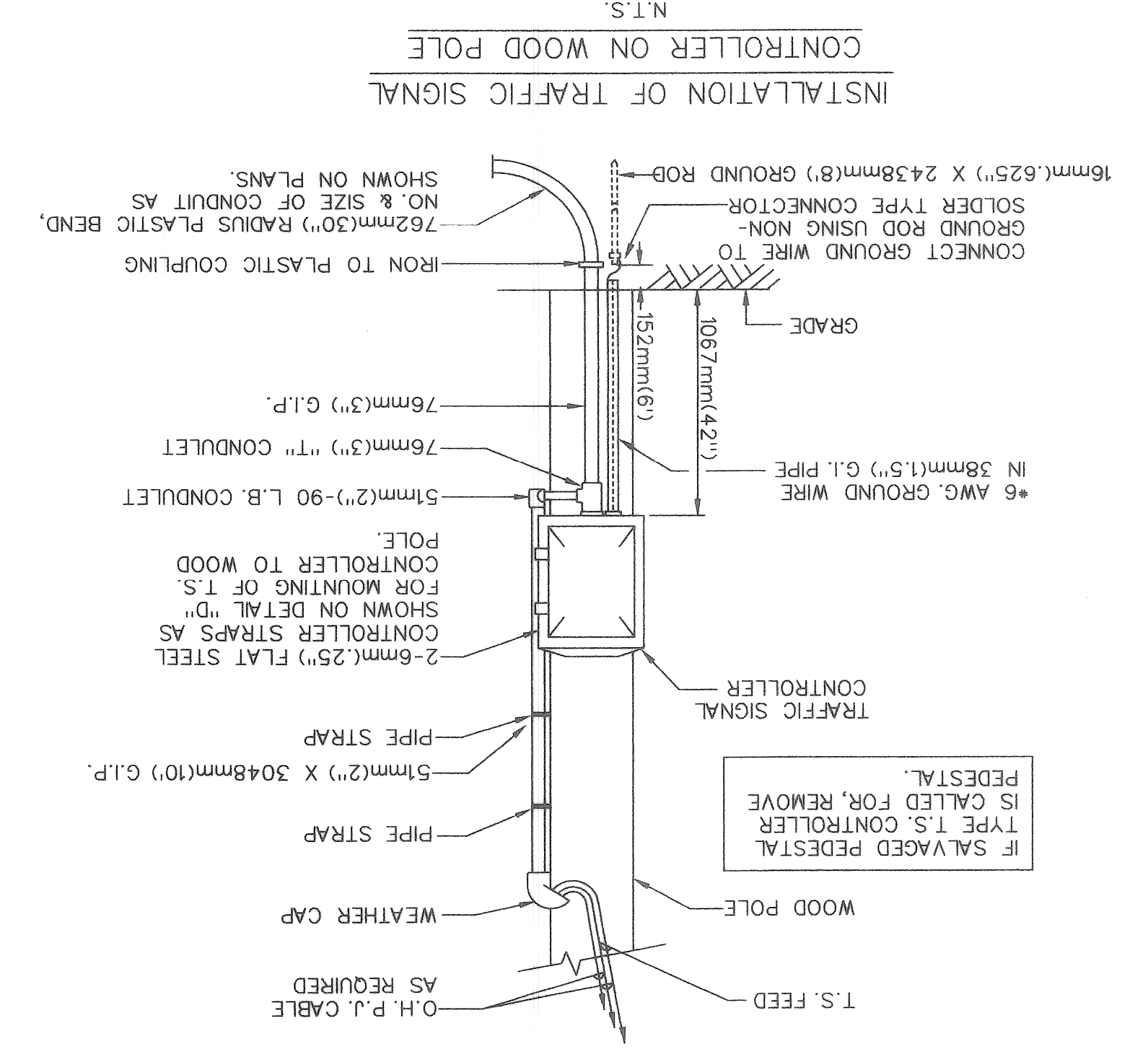
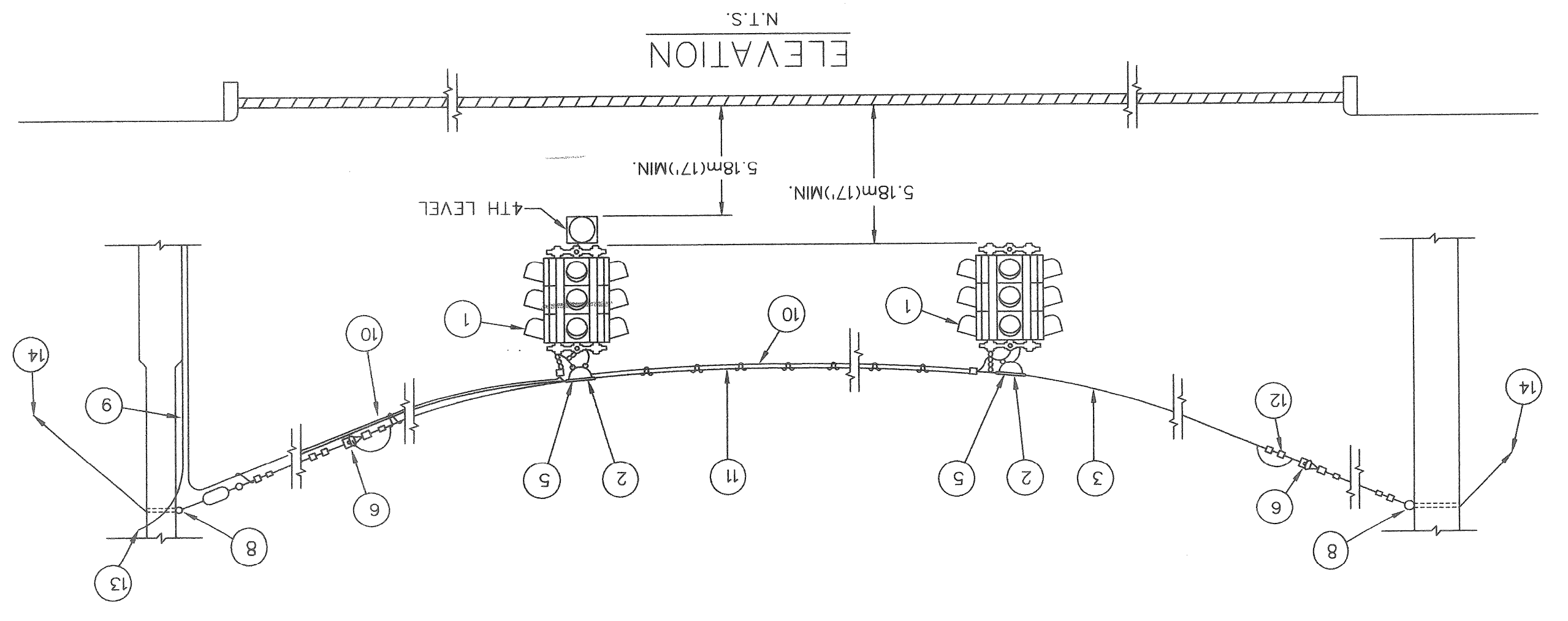
TYPICAL CHRONOPLAN, SECONDARY,  
 MULT. ST. LTG. & TRAFFIC SIGNAL  
 CABLE POLE  
 DETAIL "E"  
 N.T.S.



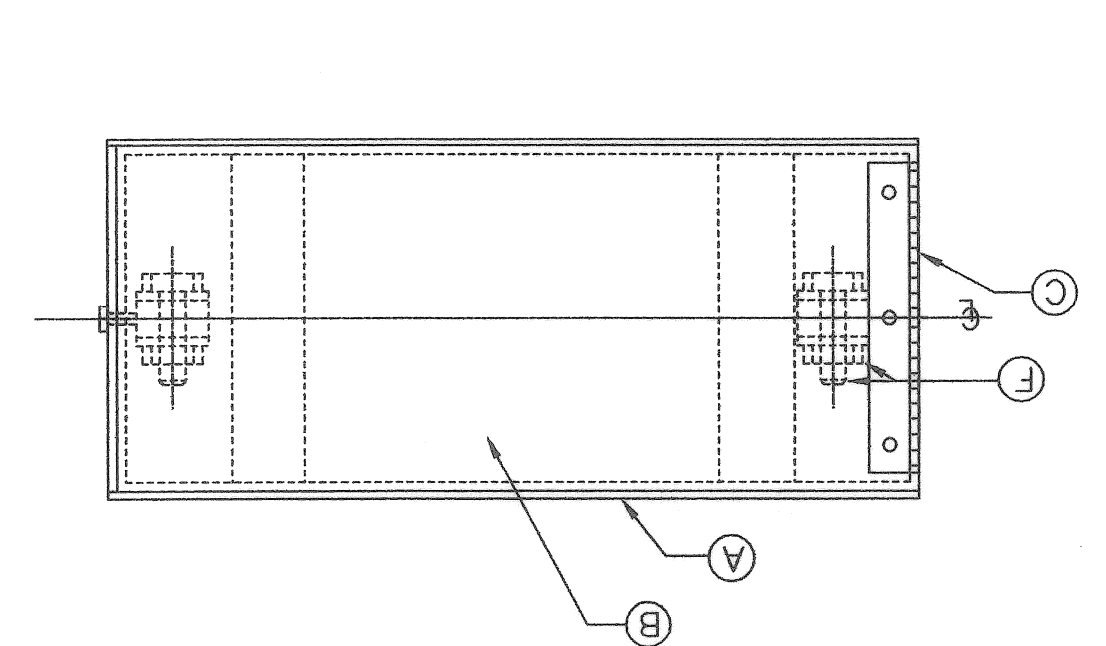
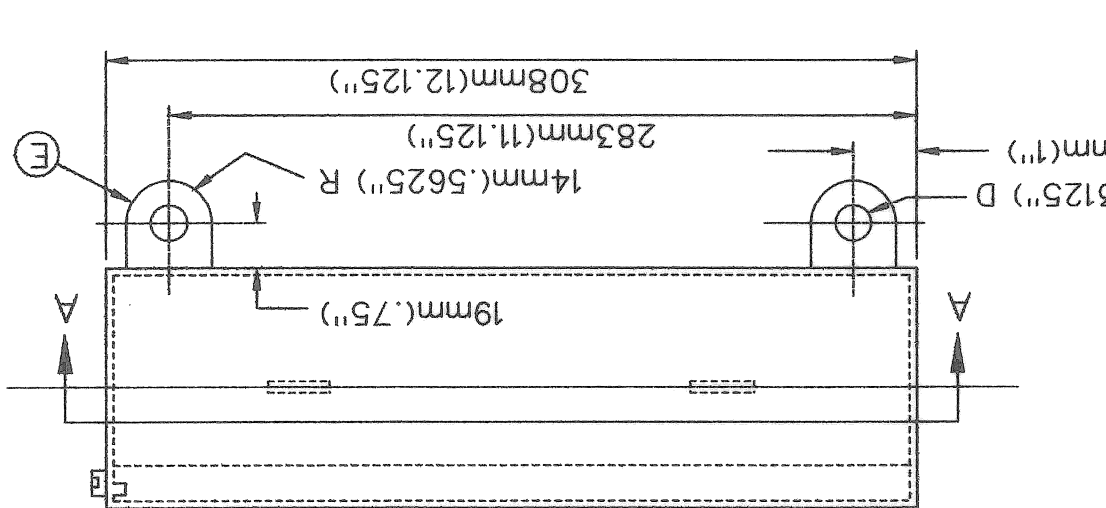
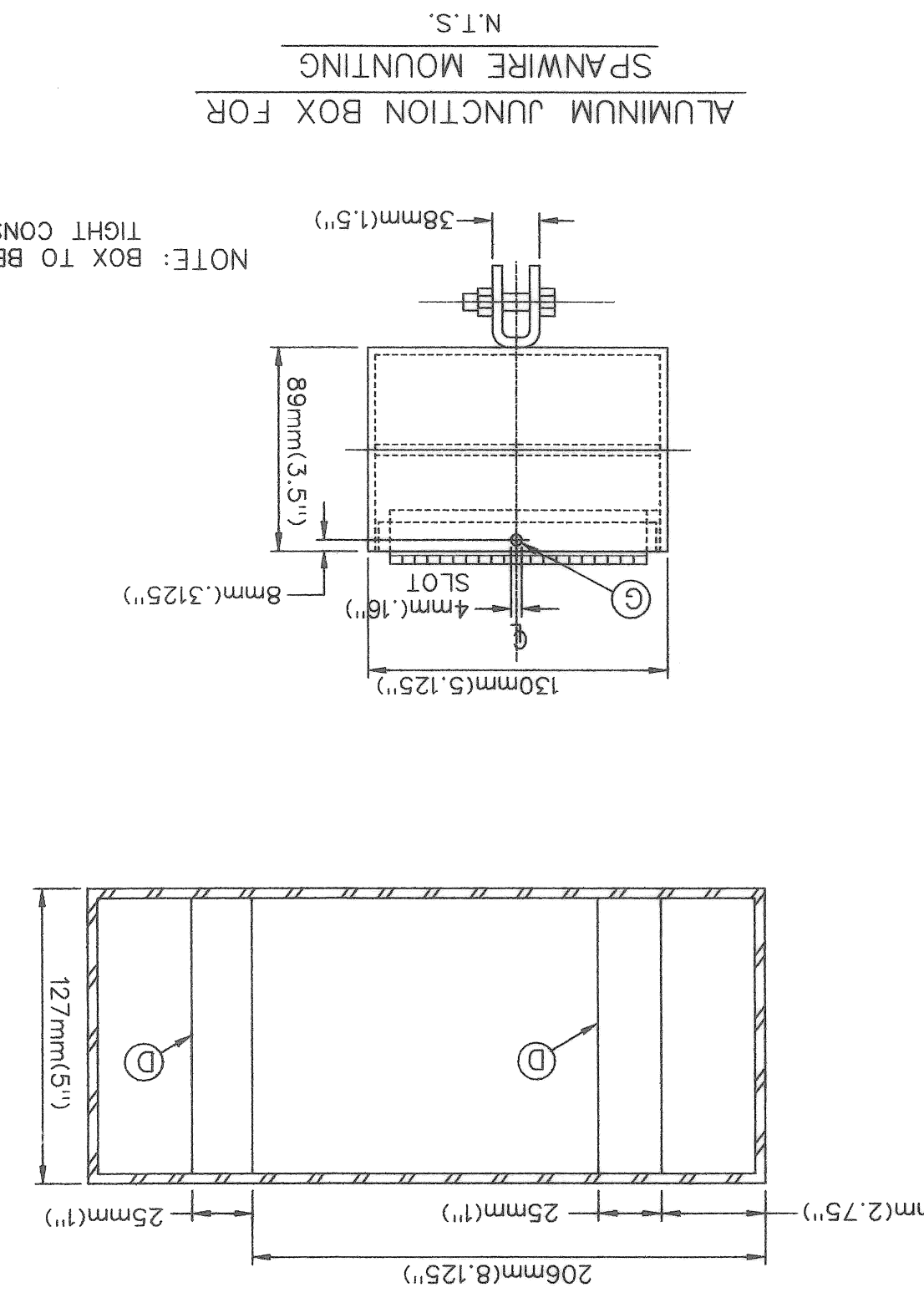
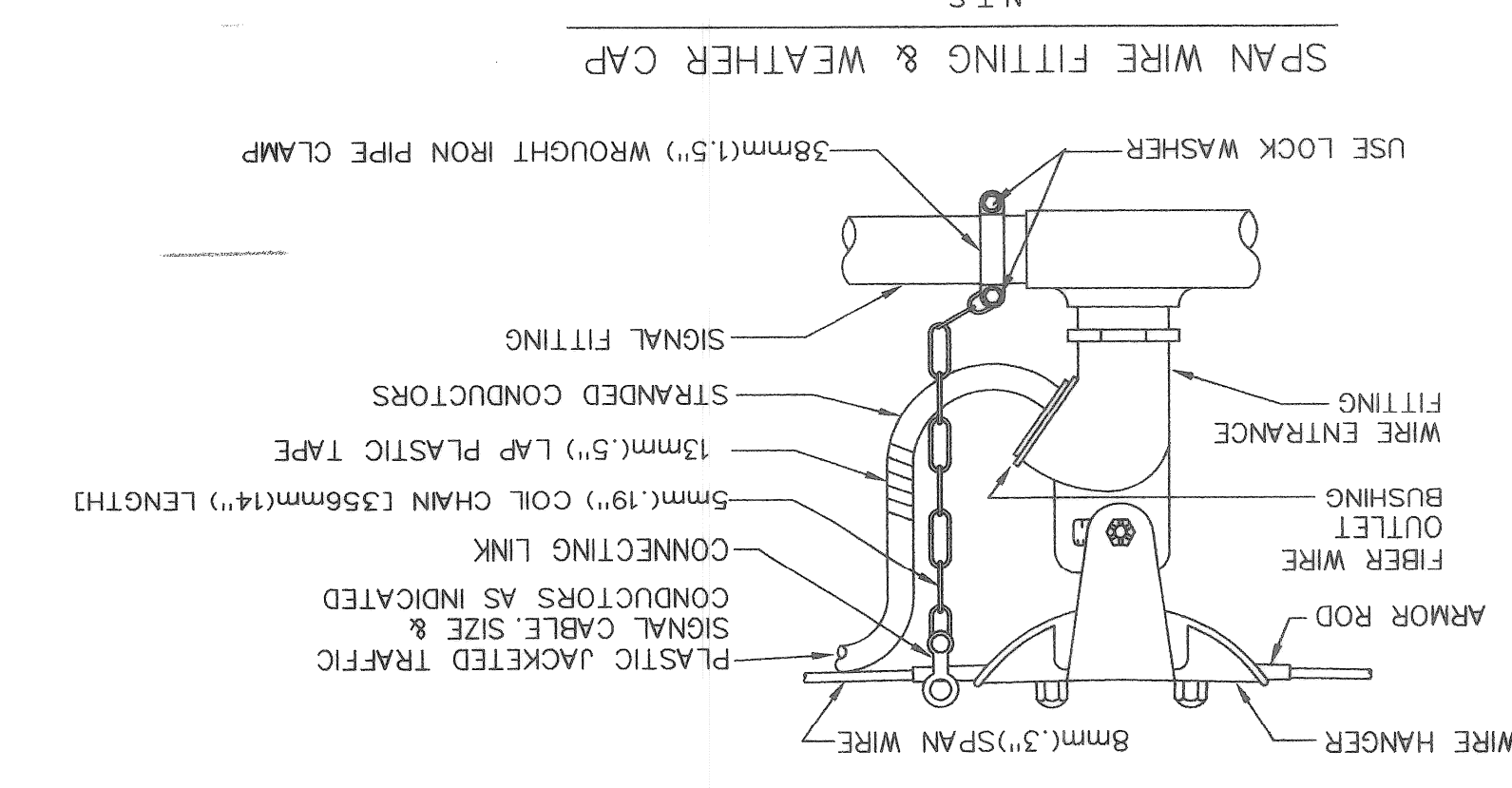
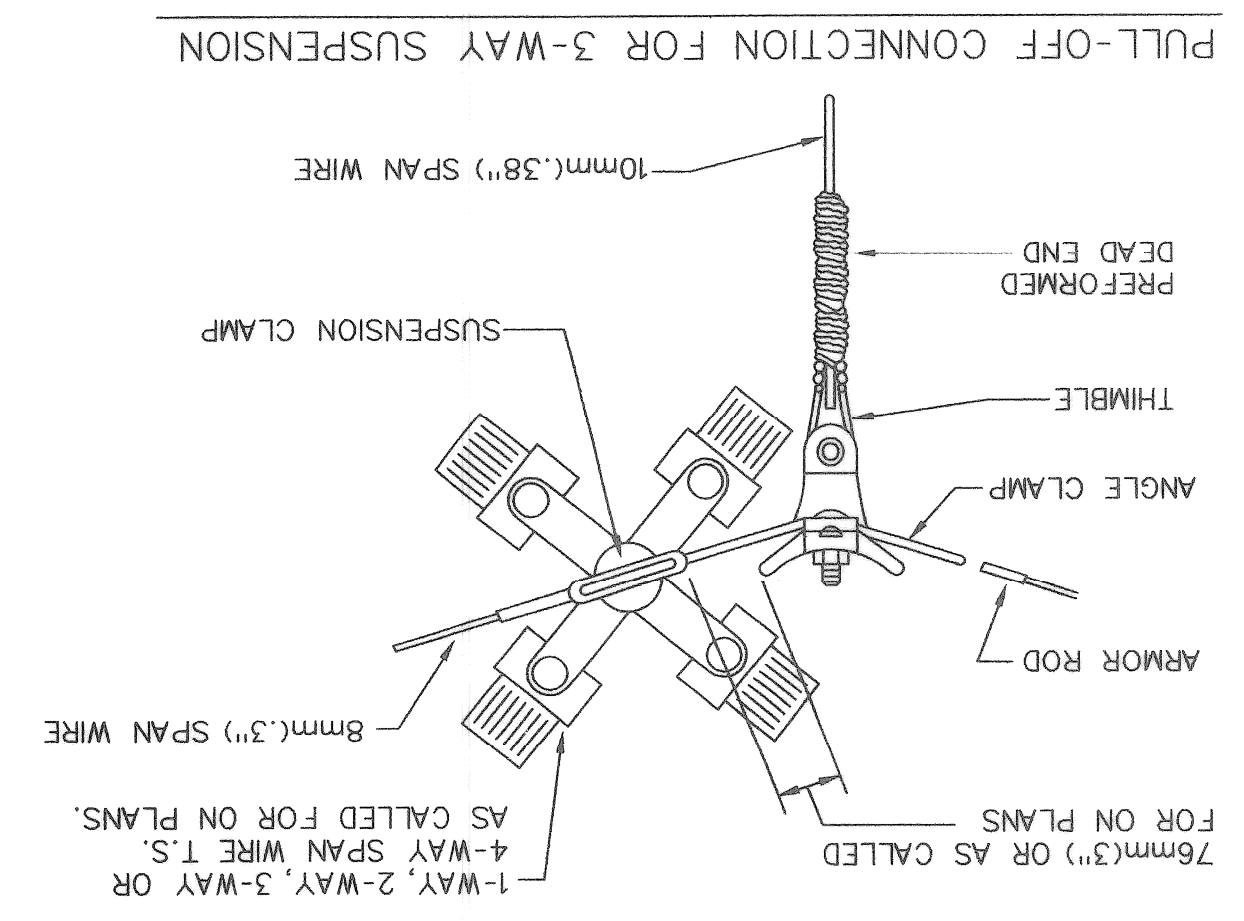




NO.	ITEMS
1	TRAFFIC SIGNAL AS REQUIRED ON GENERAL PLAN
2	SPAN WIRE HANGER
3	8mm(.3") SPAN WIRE (USE EXTRA HIGH STRENGTH ASPER SPEC.)
5	ARMOR ROD
6	STRAIN INSULATOR
8	19mm EYEBOLT
9	SPLIT PLASTIC CONDUIT
10	*14 T.S. CABLE (AS SPECIFIED)
11	PREFORMED STEEL LASHING RODS
12	WIRE ROPE CLIPS OR PREFORMED DEAD ENDS & *10 JUMPER COPPER
13	Z/C *8 CABLE FOR SERVICE (WHEN REQ'D.)
14	10mm(.375") GUY, GUARD AND ANCHOR



NOTE:  
 INSTALL 19mm(.75") X 3048mm(10') COPPER CLAD GROUND ROD(S) AS REQUIRED TO PROVIDE LESS THAN 10 OHM RESISTANCE TO GROUND. INSTALL \*2 COPPER GROUND WIRES FROM GROUND ROD(S) TO SPAN WIRE AT EACH SUPPORTING POLE USING NON-SOLDER TYPE CONNECTIONS FOR SPAN WIRE GROUNDING.



- MATERIAL FOR JUNCTION BOX  
 A BOX - 14 B & S ALUMINUM  
 B LID - 14 B & S ALUMINUM  
 C PLANO HINGE  
 D TERMINAL MOUNTING STRAPS - \*10 B & S  
 E MOUNTING LUGS - \*8 B & S ALUMINUM  
 F 6mm(.25") BOLT & NUT  
 G 3mm(.125") SHEET METAL SCREW

NOTE: BOX TO BE OF WEATHER TIGHT CONSTRUCTION



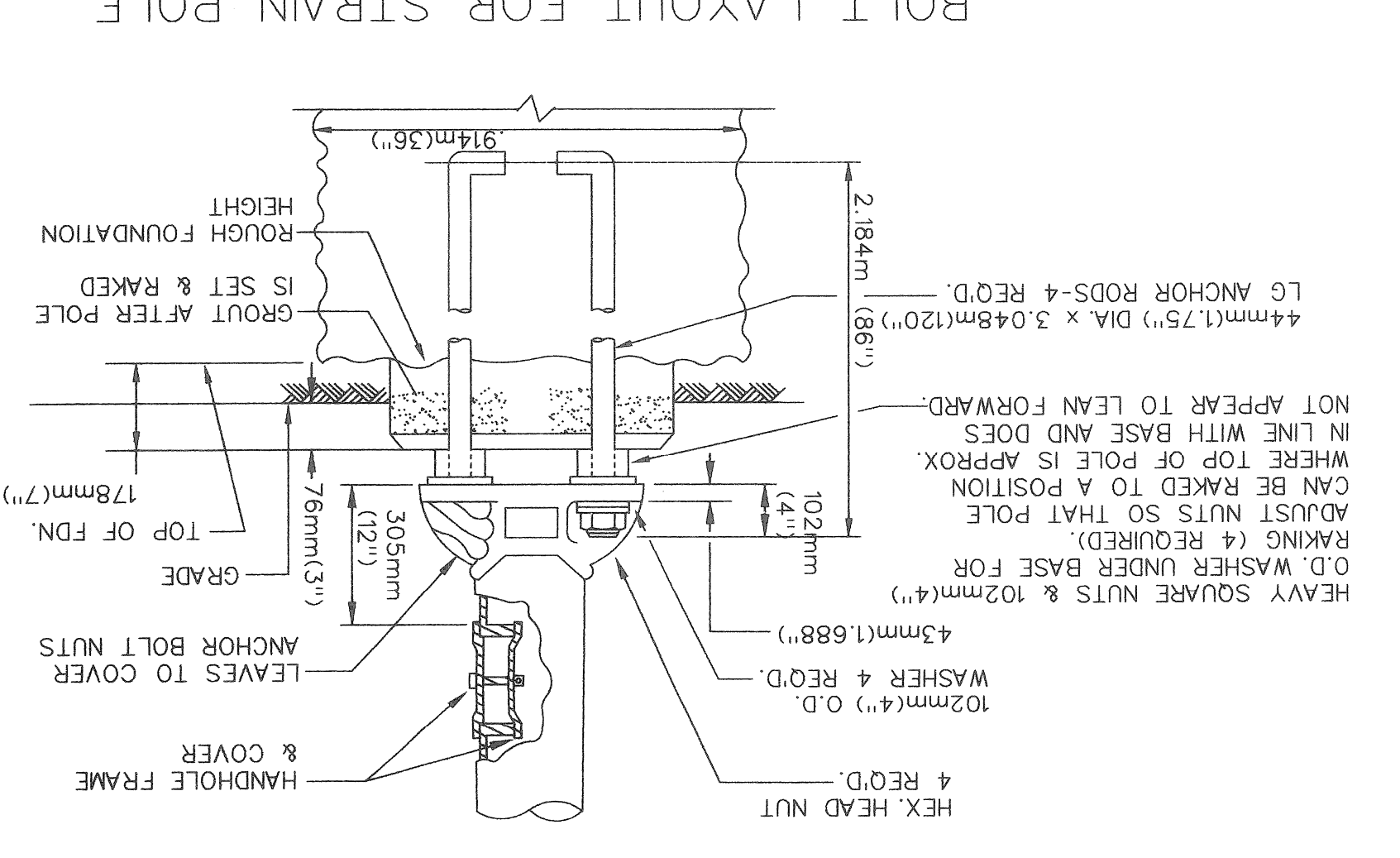
DATE	INITIALS	REVISION	BY	LEVELS
05/27/03	PCJ	REVISION FROM 05/27/03 SUBMIT 1141	PCJ	
07/20/03		REVISION		
		FINAL MEASURE		



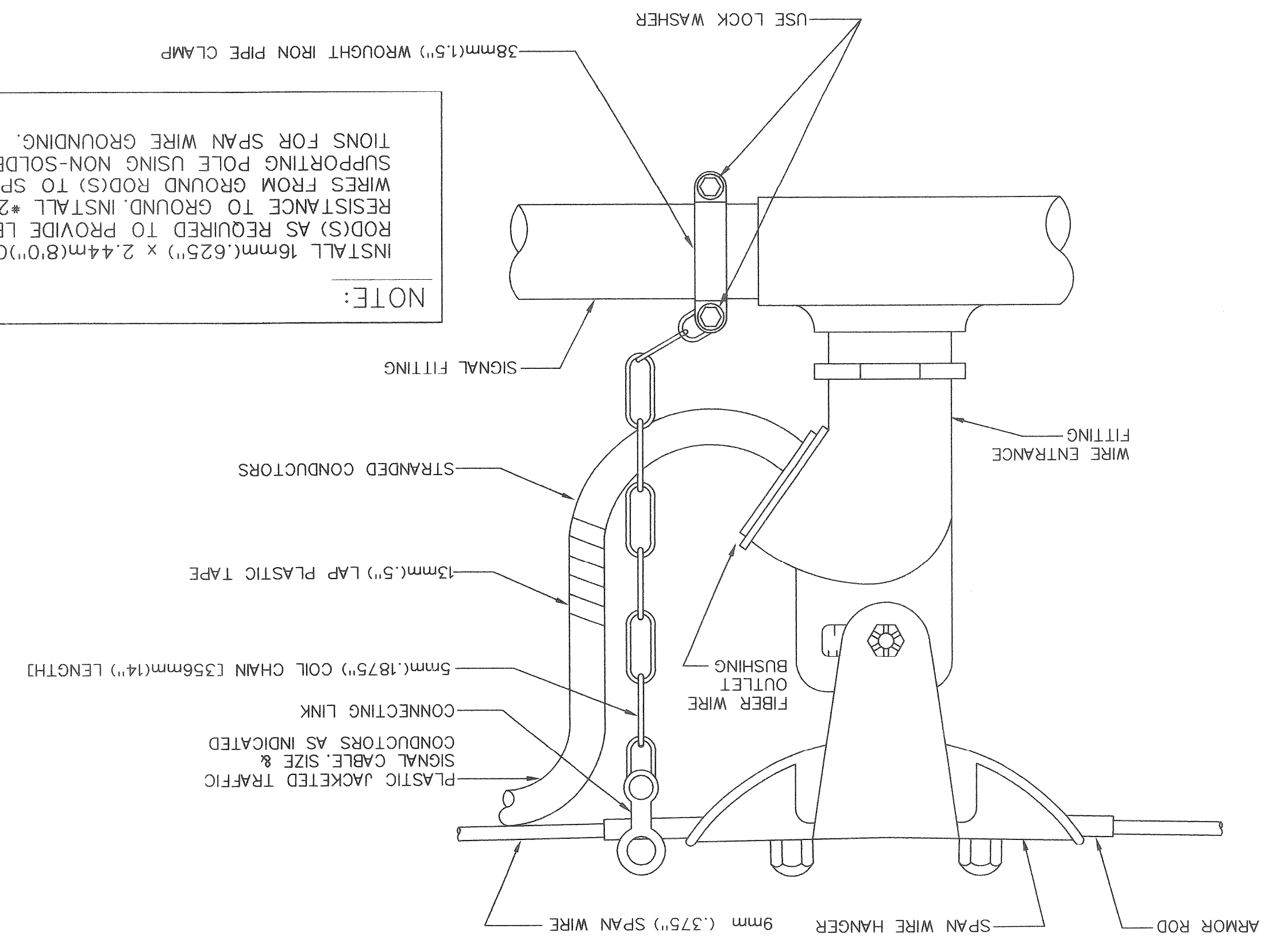
DEPARTMENT OF PUBLIC WORKS  
 CITY OF DETROIT  
 DEPARTMENT OF PUBLIC LIGHTING

Wade-Trim, Inc.  
 2944 Fuller NE  
 Grand Rapids, MI 49505  
 616-363-8181 1-800-931-9135

FOUNDATION  
 N.T.S.

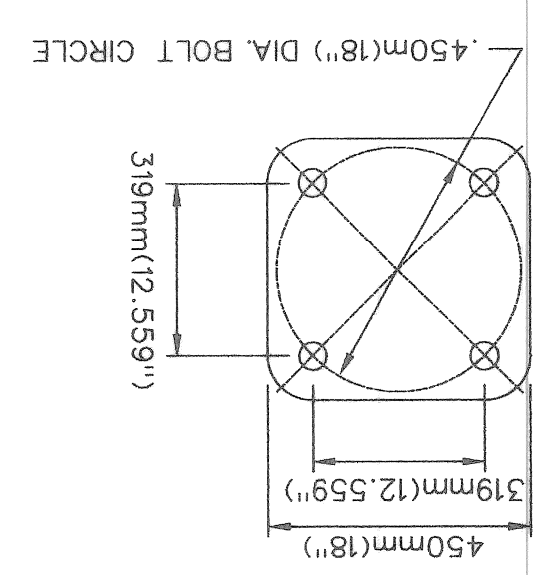


SPAN WIRE FITTING & WEATHER CAP  
 N.T.S.

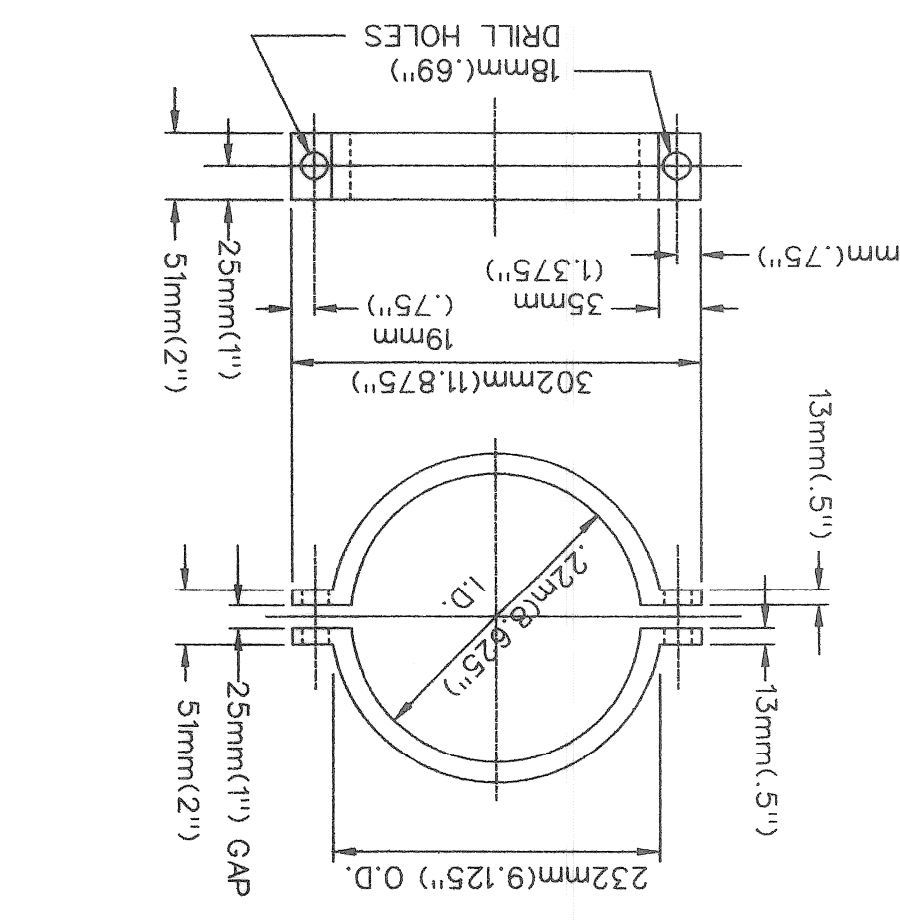


NOTE:  
 INSTALL 16mm(.625") x 2.44m(.80") COPPER CLAD GROUND ROD(S) AS REQUIRED TO PROVIDE LESS THAN 10 OHM RESISTANCE TO GROUND. INSTALL \*2 COPPER GROUND WIRES FROM GROUND ROD(S) TO SPAN WIRE AT EACH SUPPORTING POLE USING NON-SOLDER TYPE CONNECTIONS FOR SPAN WIRE GROUNDING.

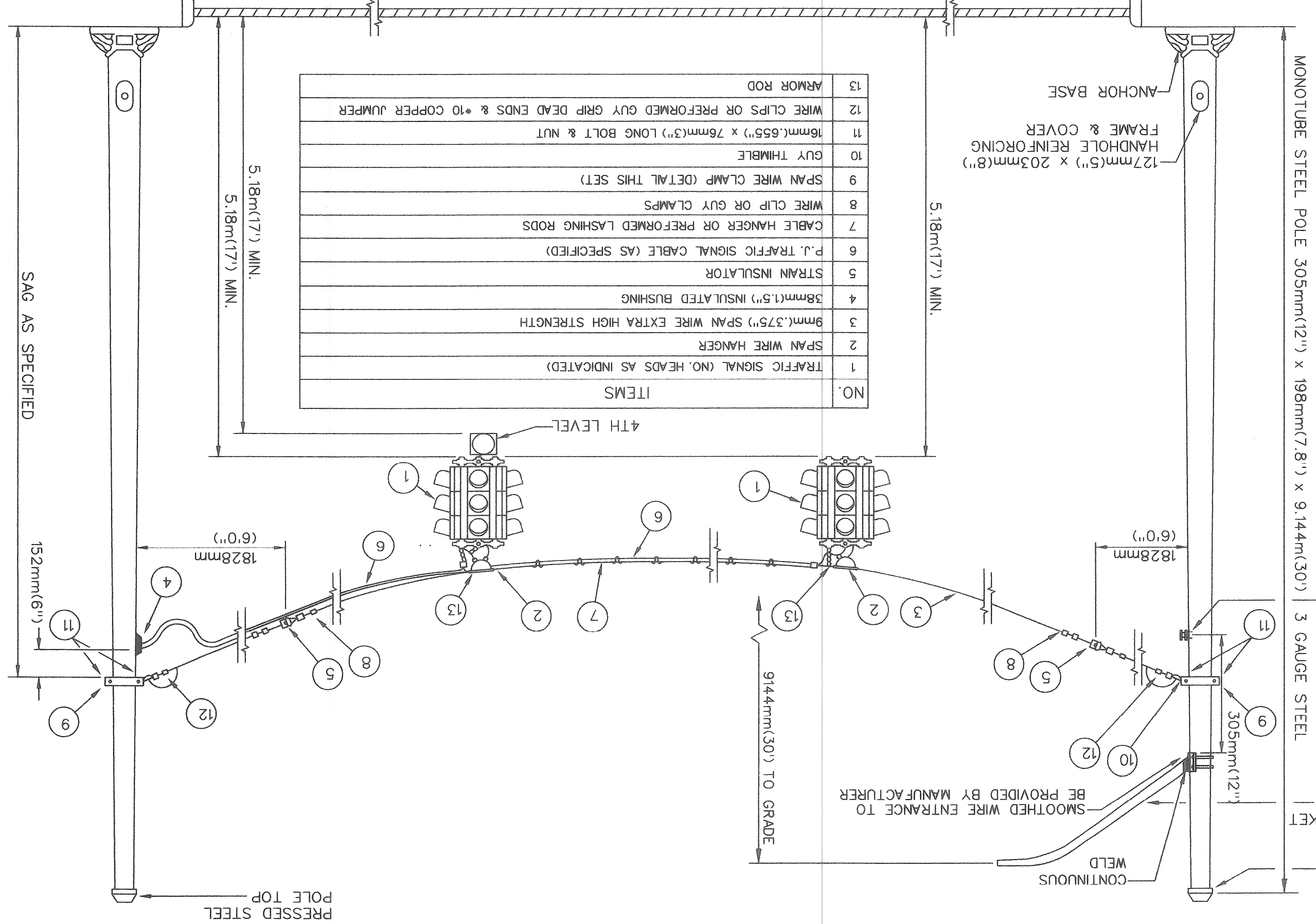
ANCHOR BOLT PLAN  
 N.T.S.



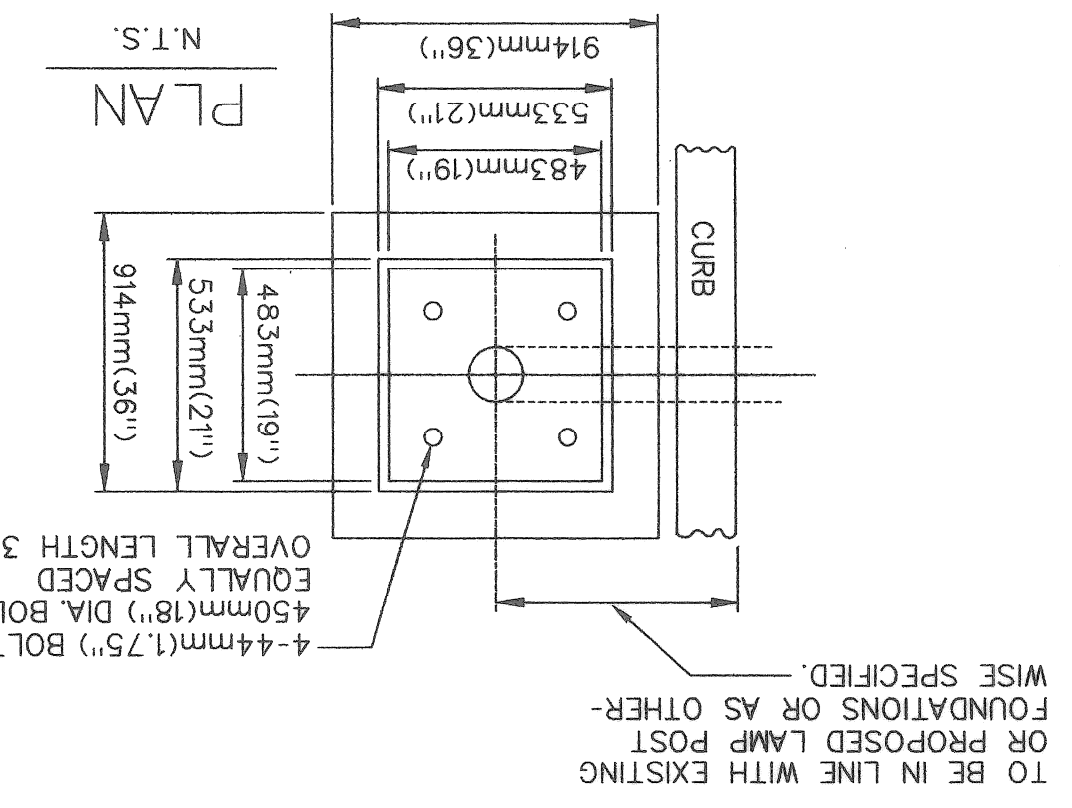
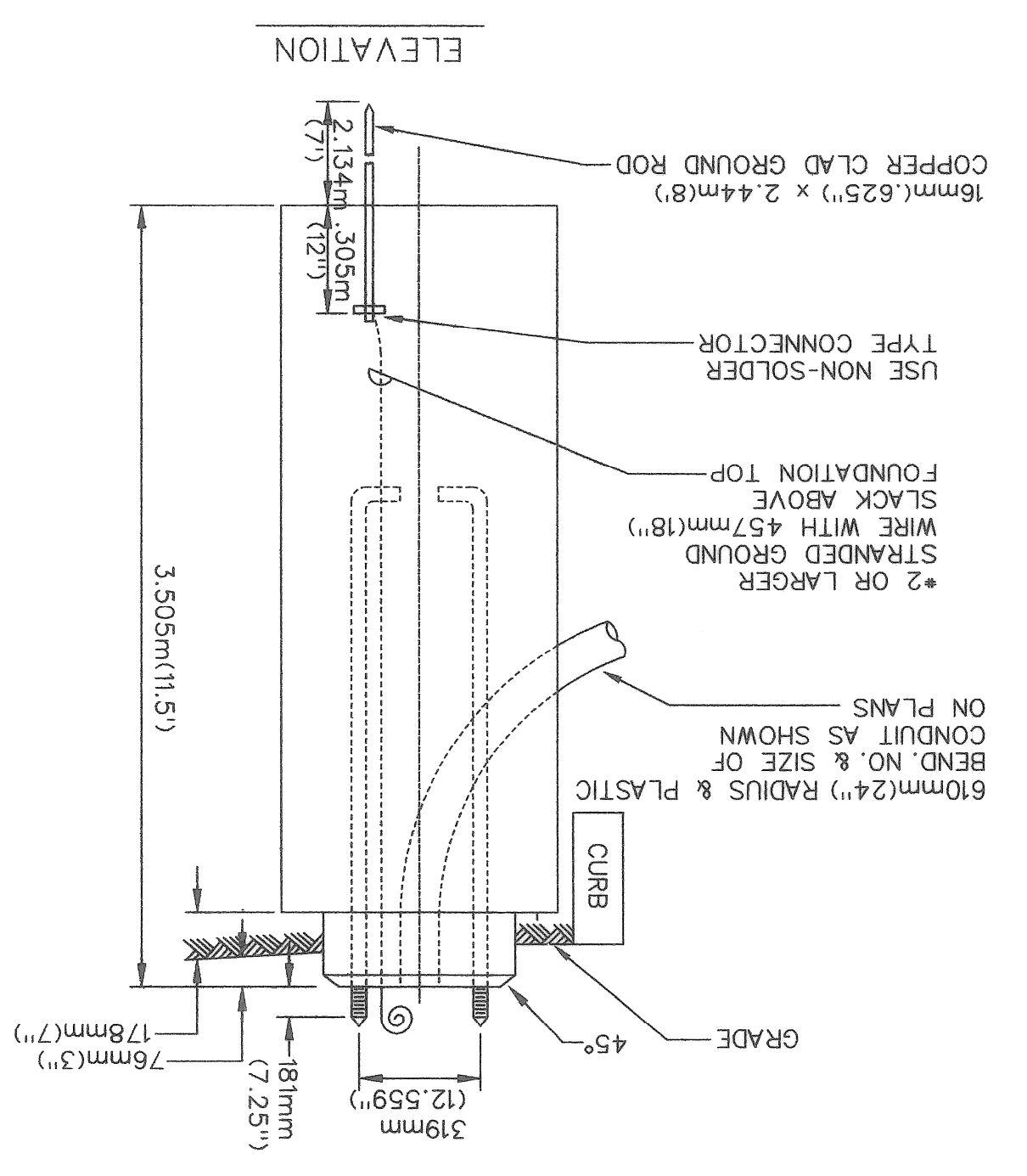
SPAN WIRE CLAMP  
 N.T.S.



ELEVATION  
 N.T.S.

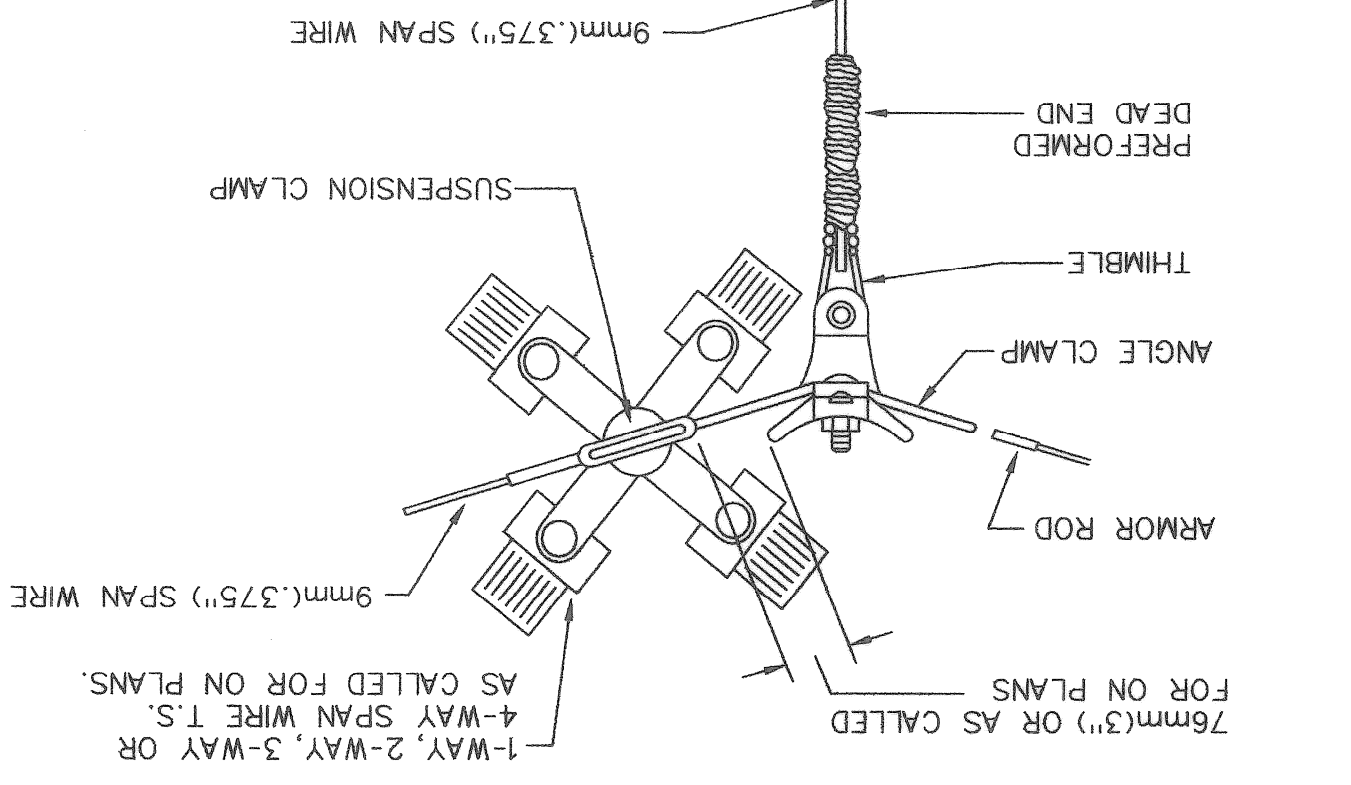


SPAN WIRE STEEL POLE FOUNDATION  
 N.T.S.



ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELLED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.

PULL-OFF CONNECTION FOR 3-WAY SUSPENSION  
 N.T.S.















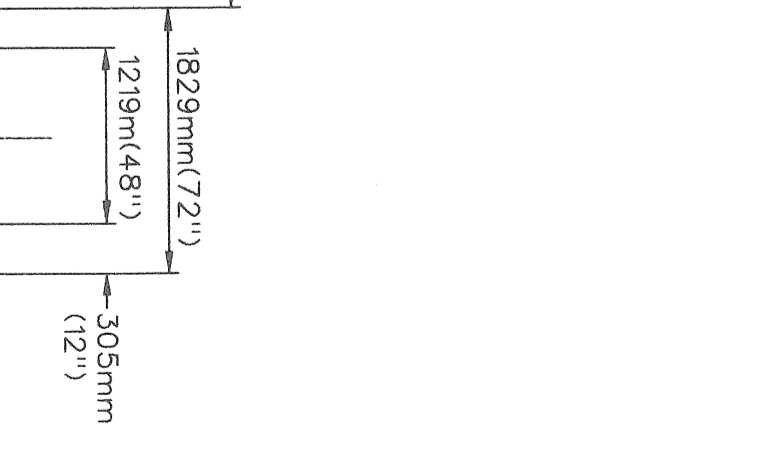
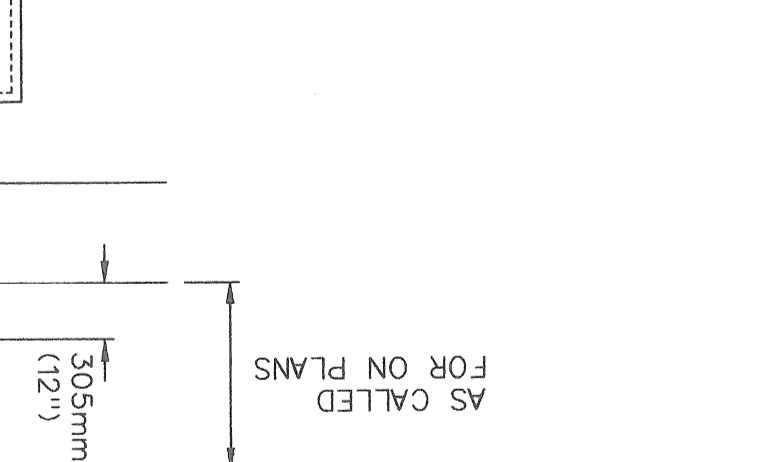
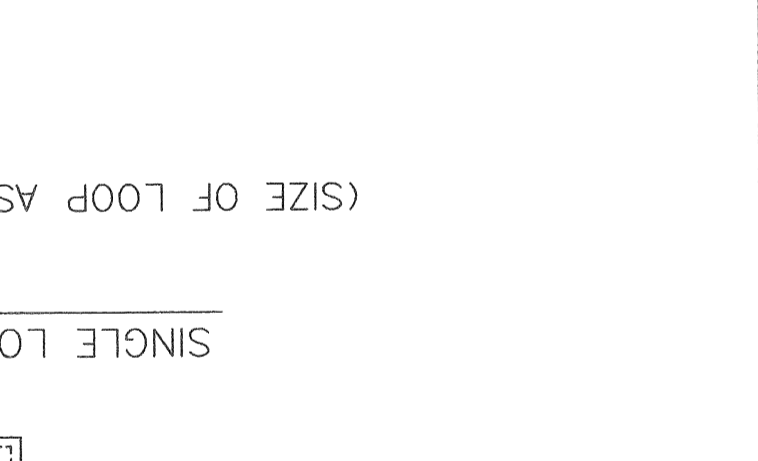
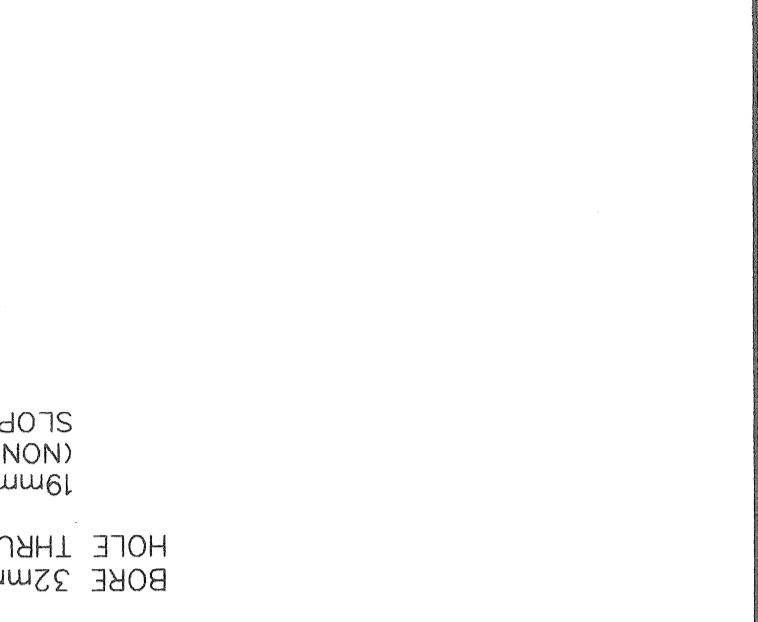
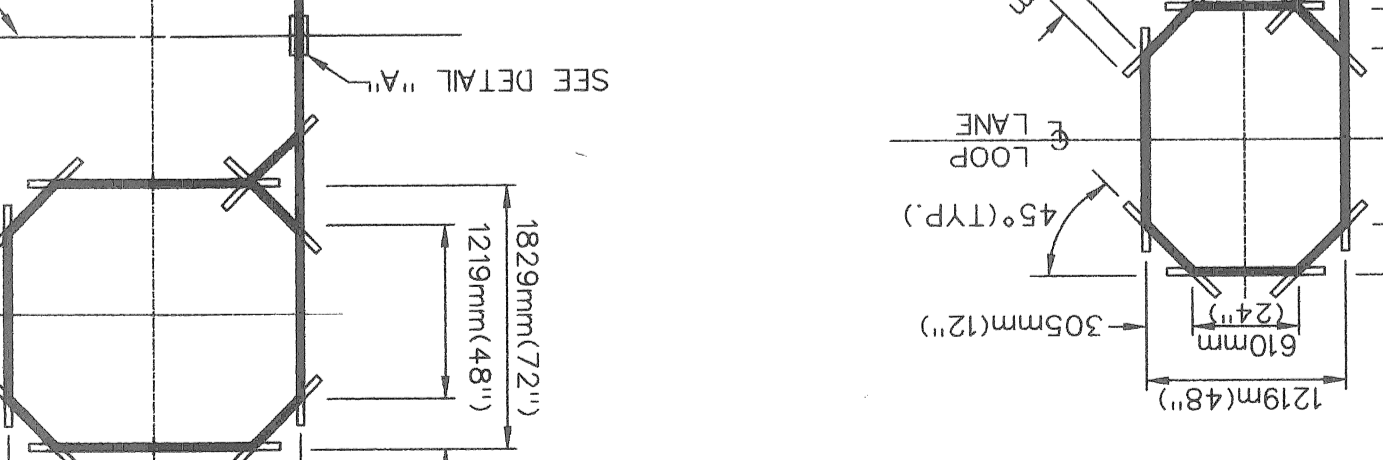
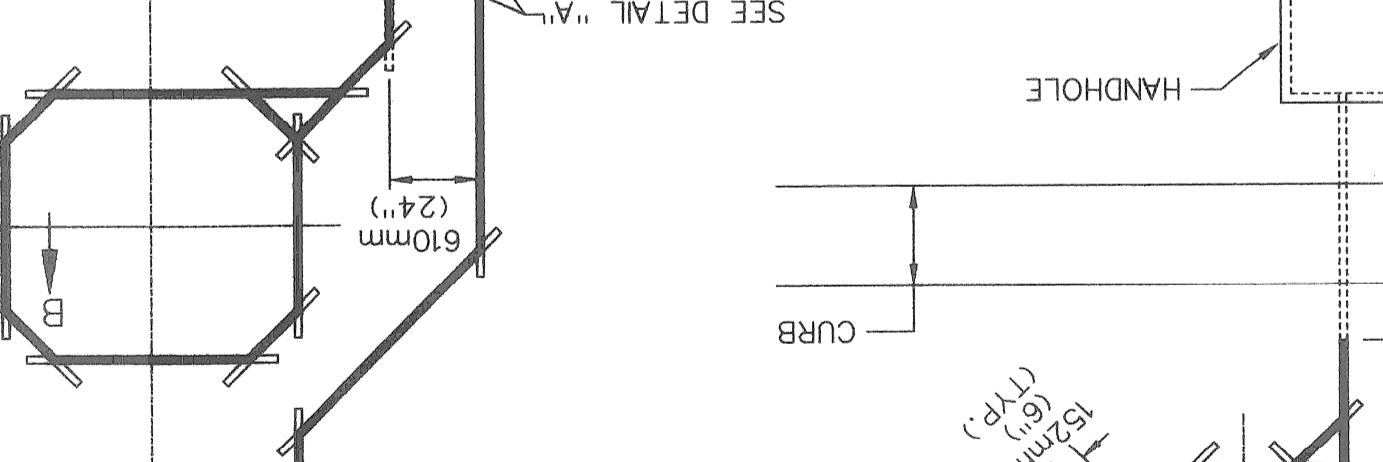
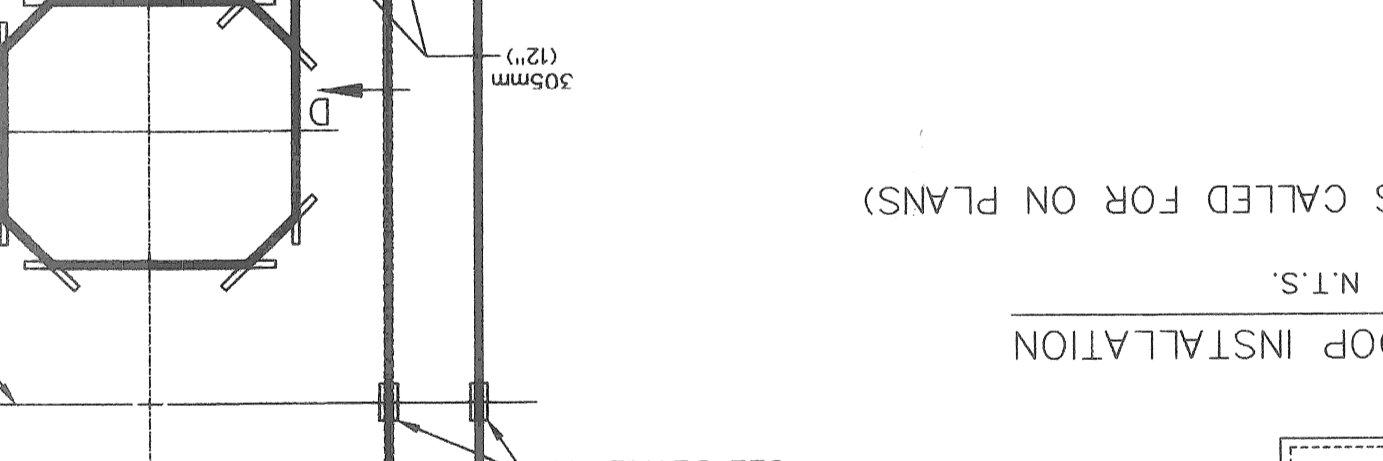
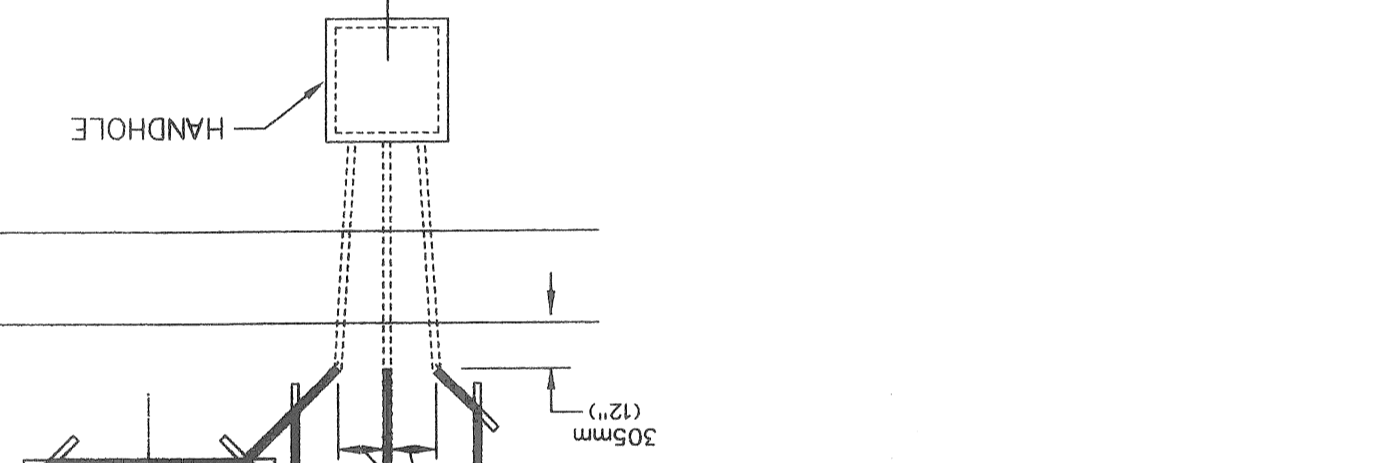
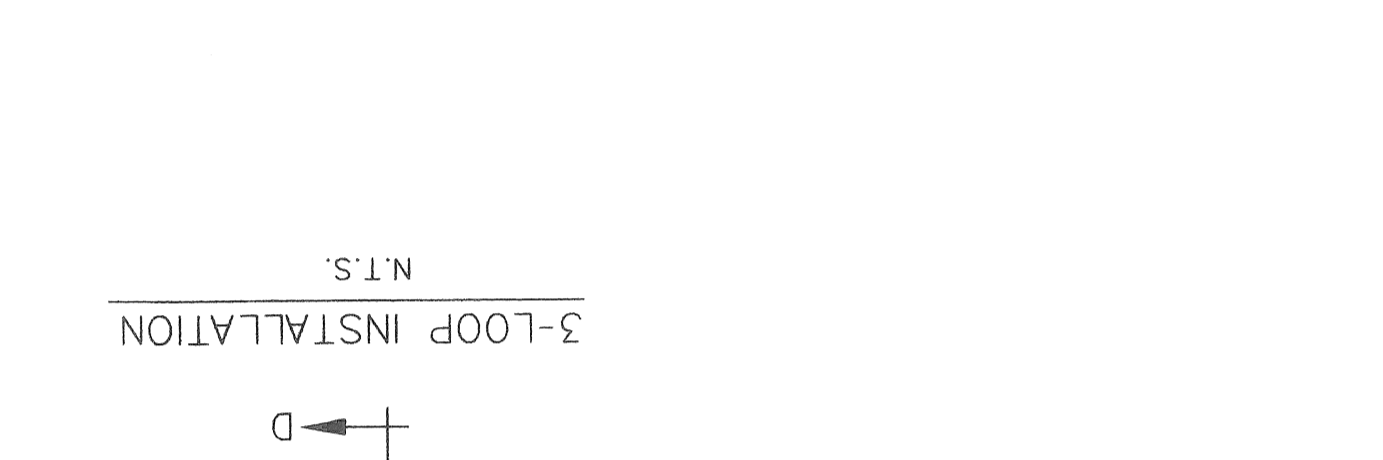
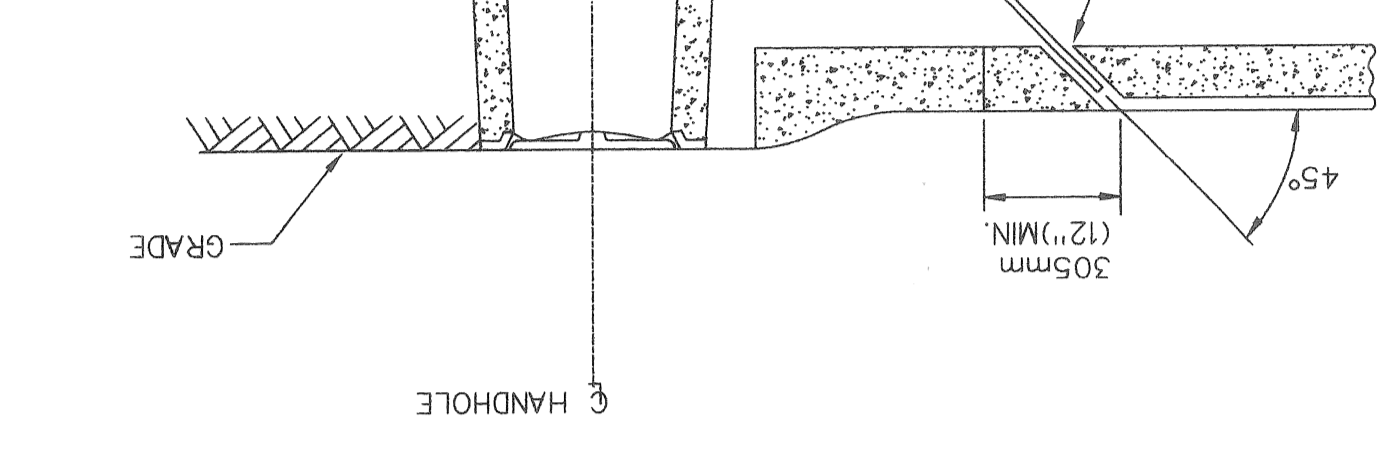
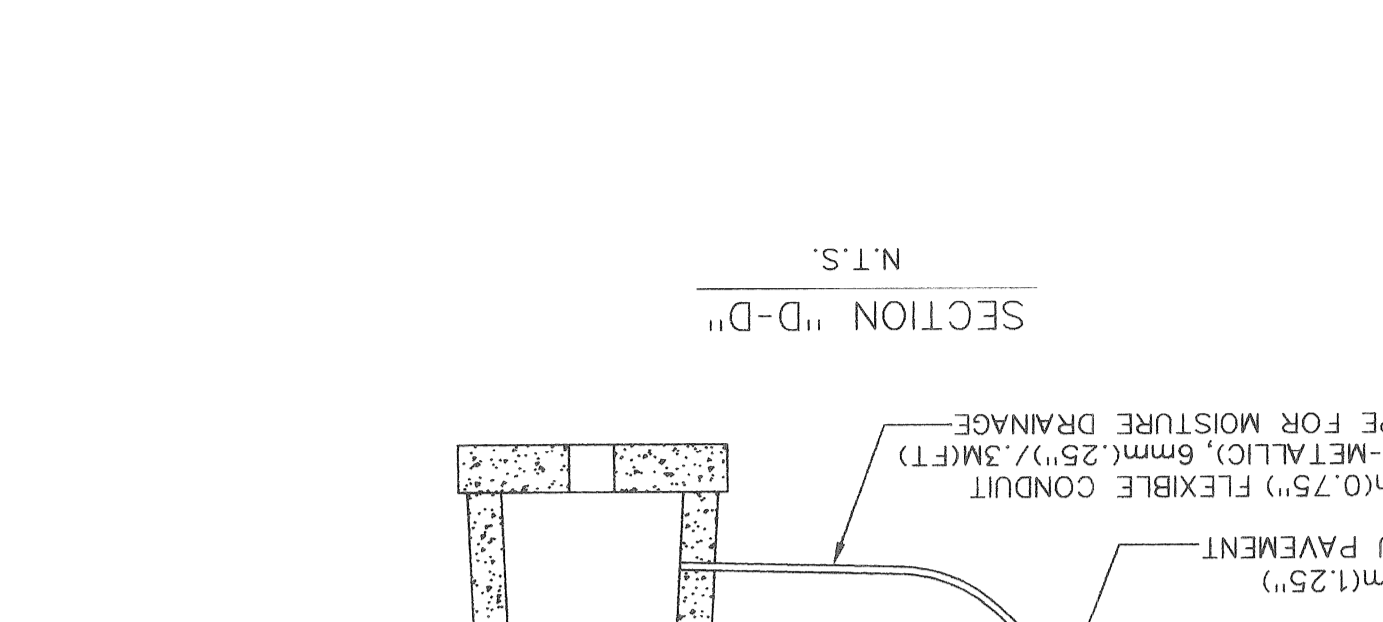
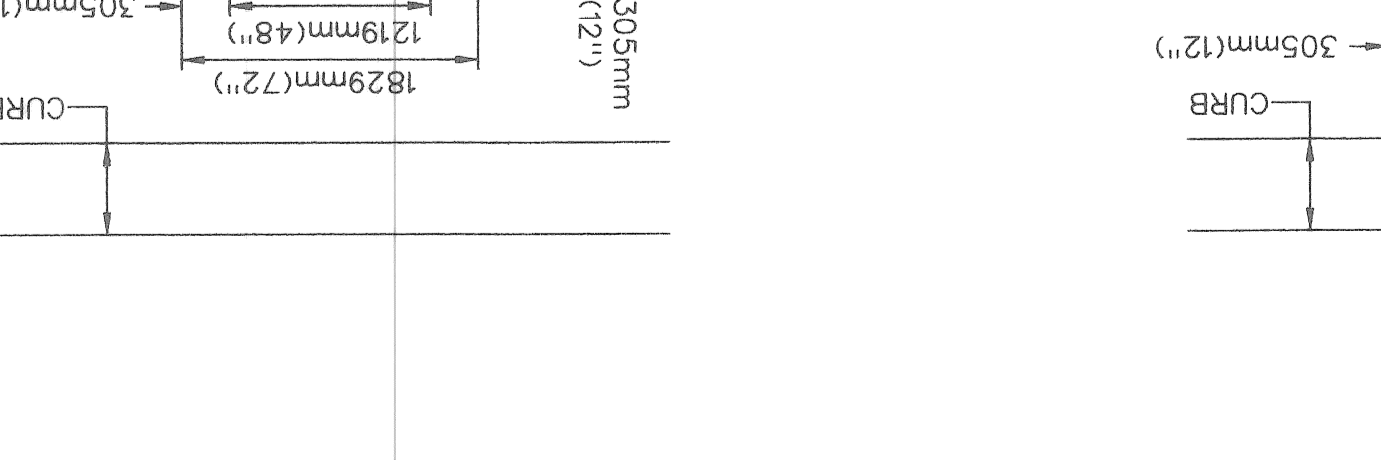
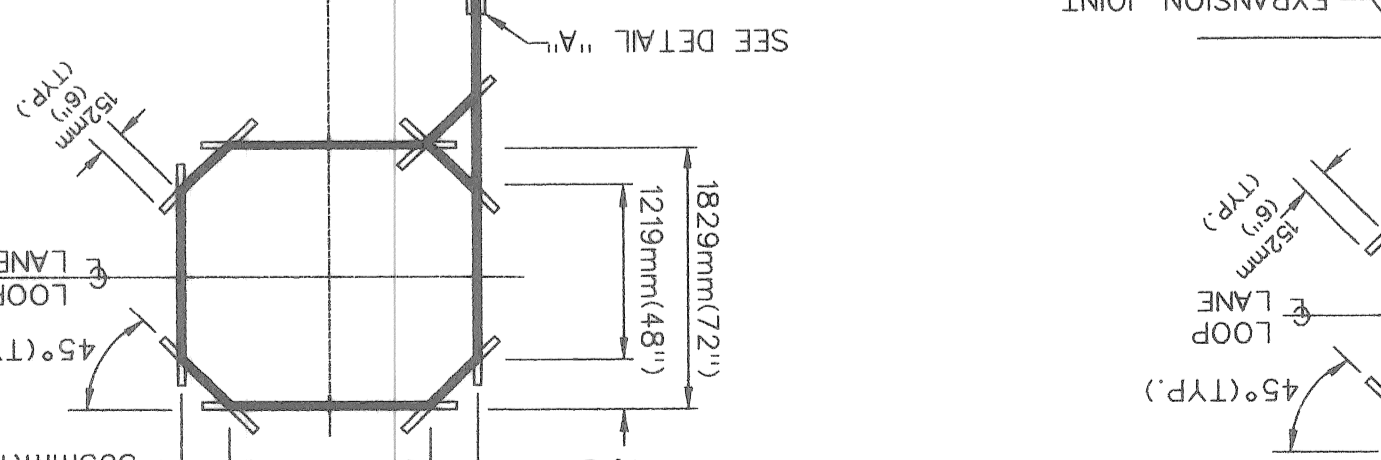
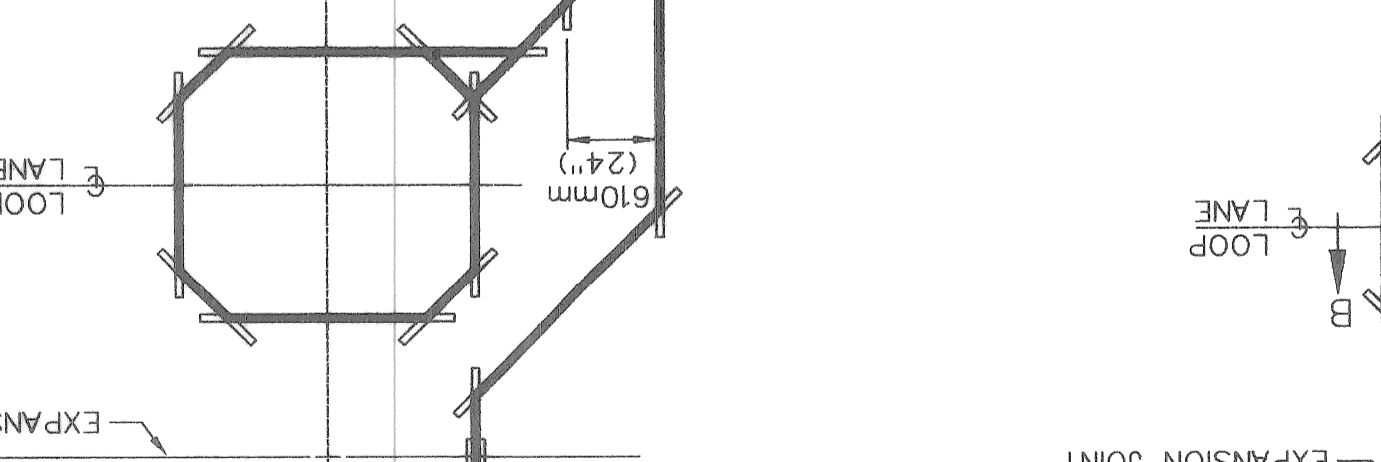
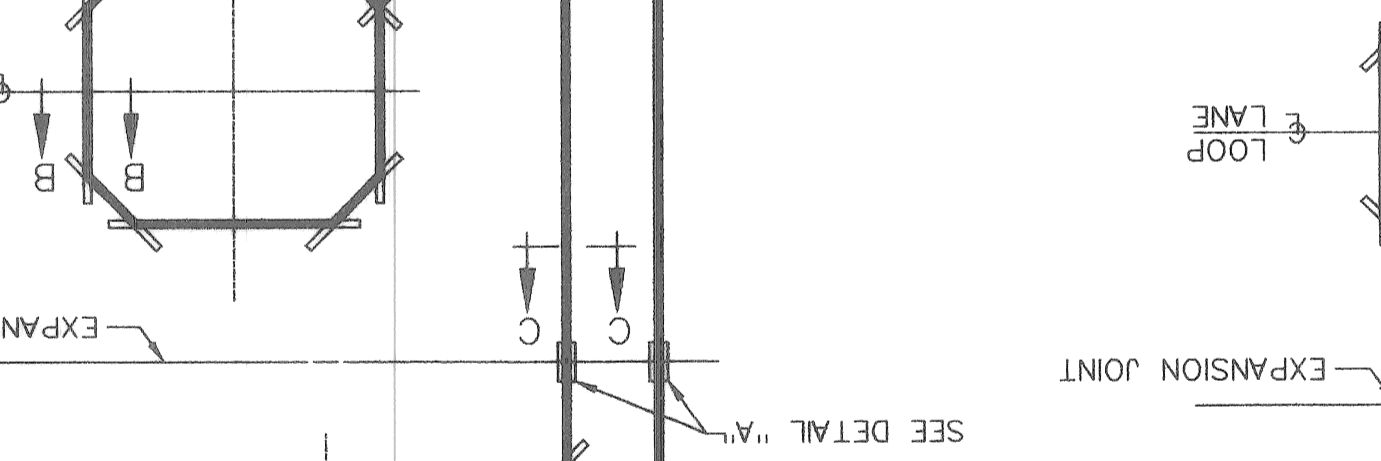
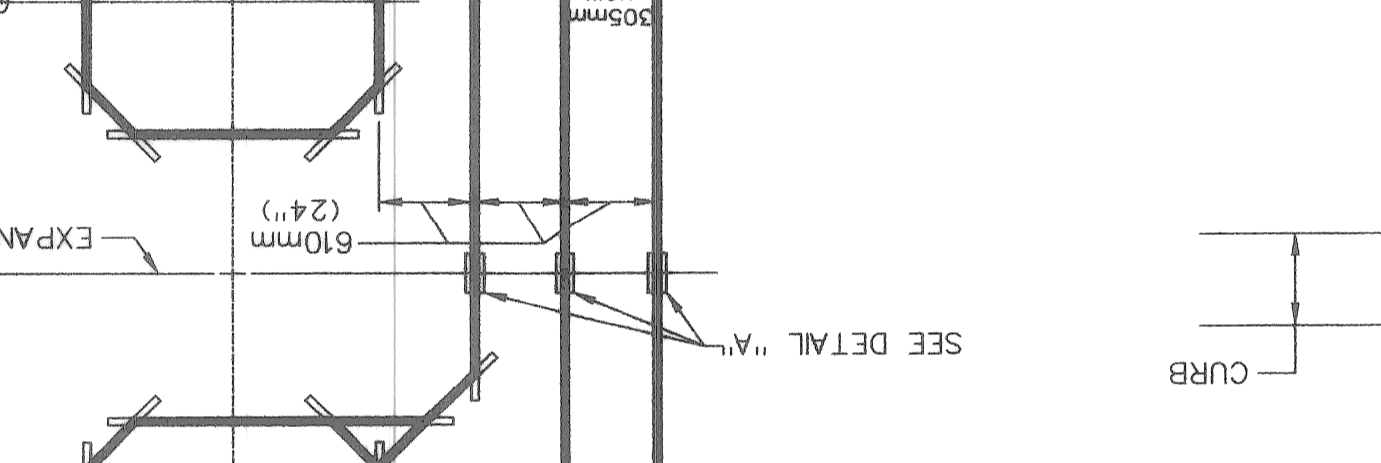
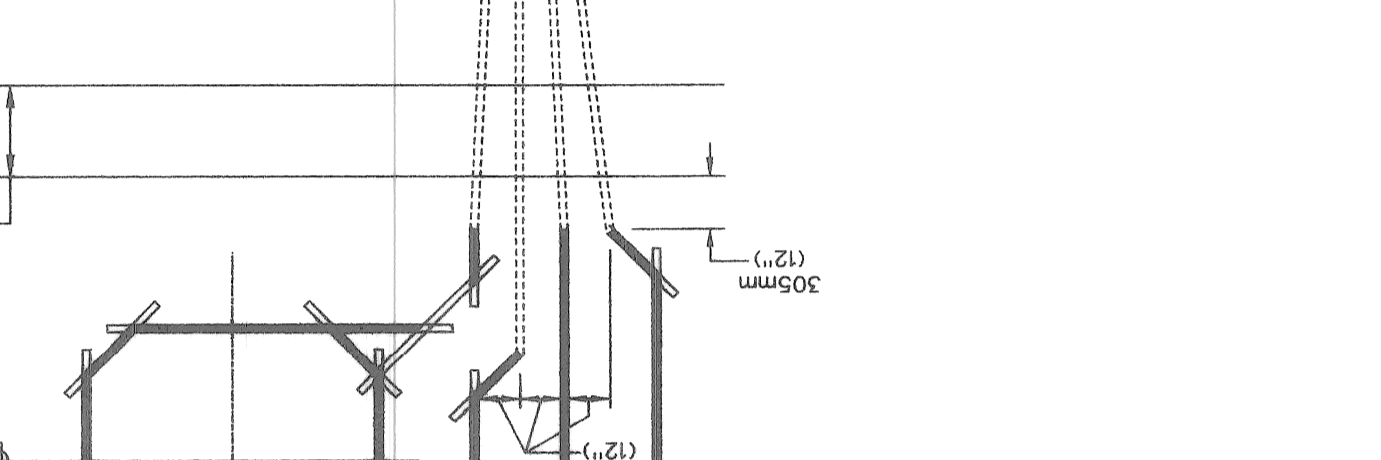
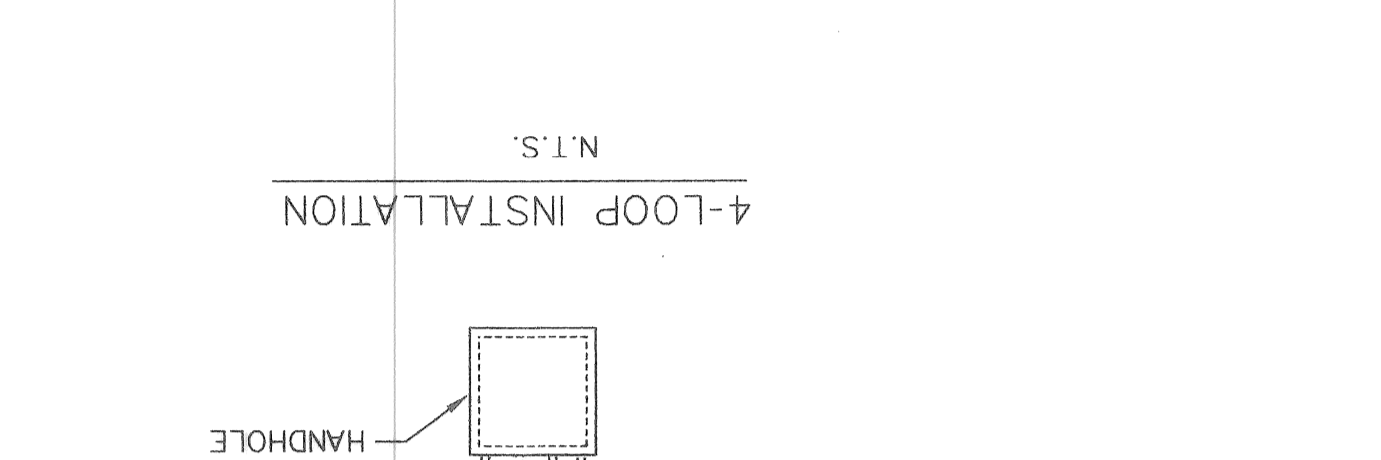
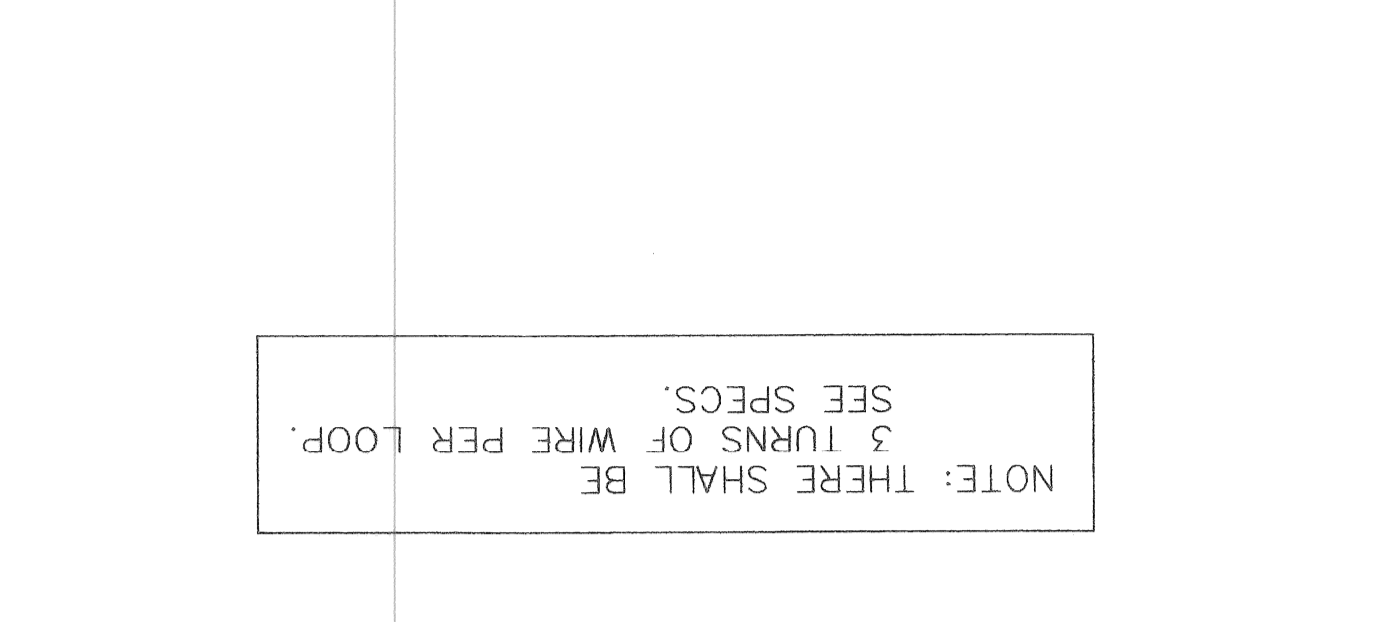
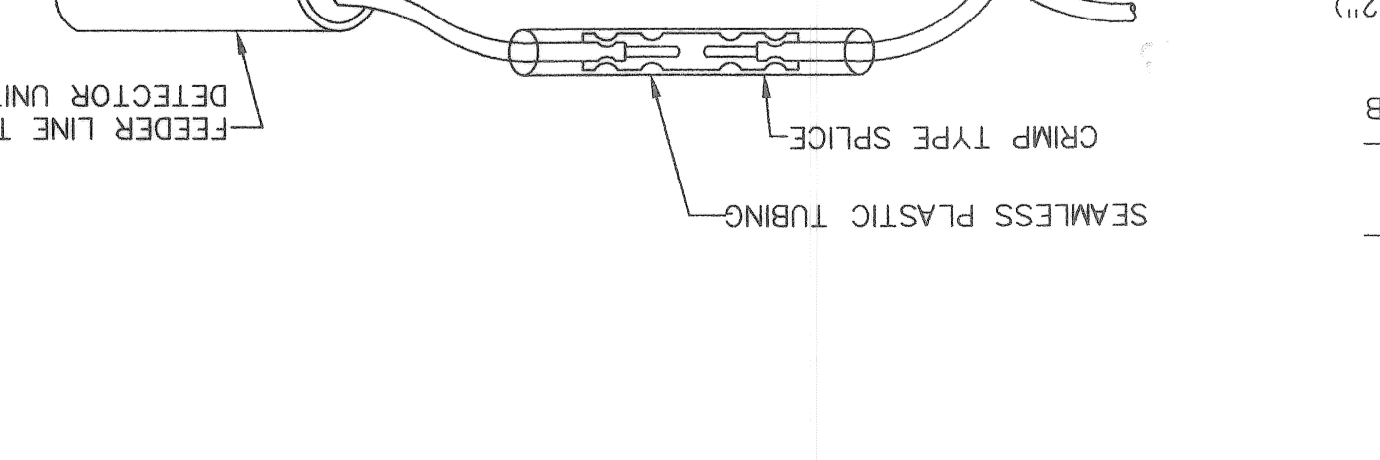
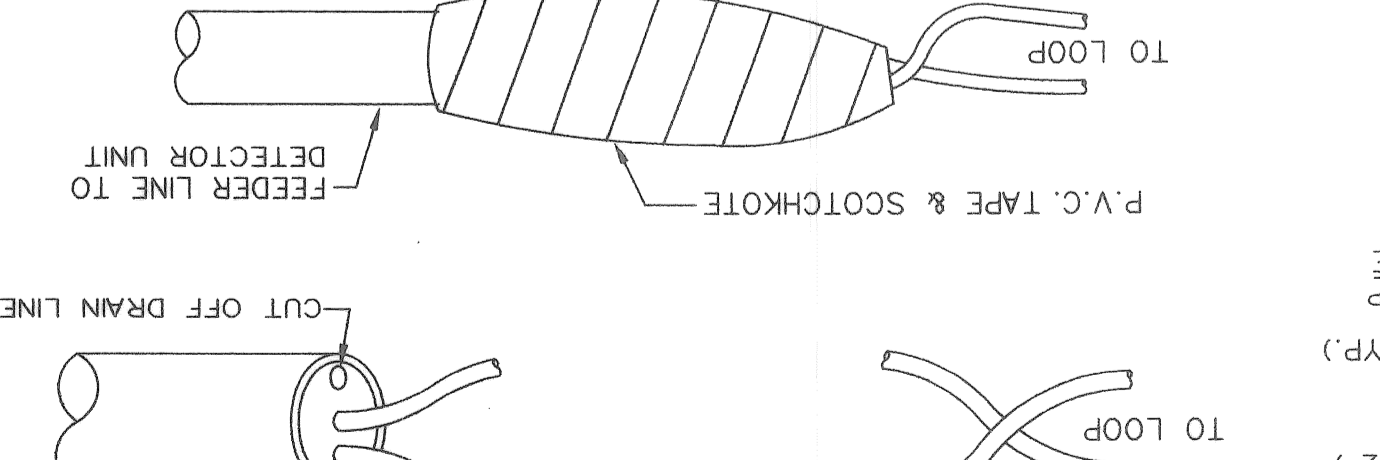
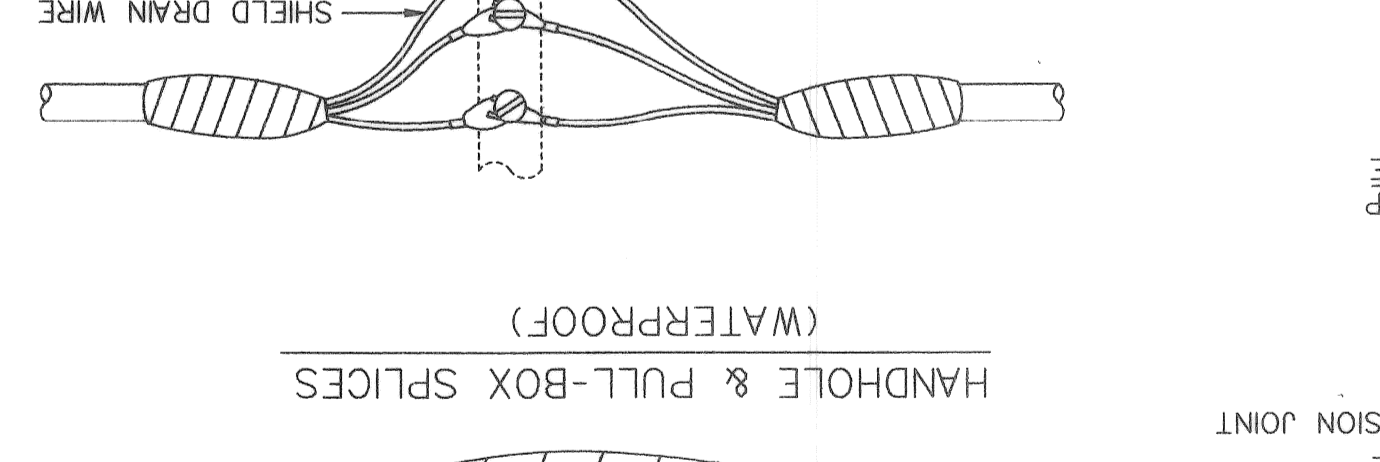
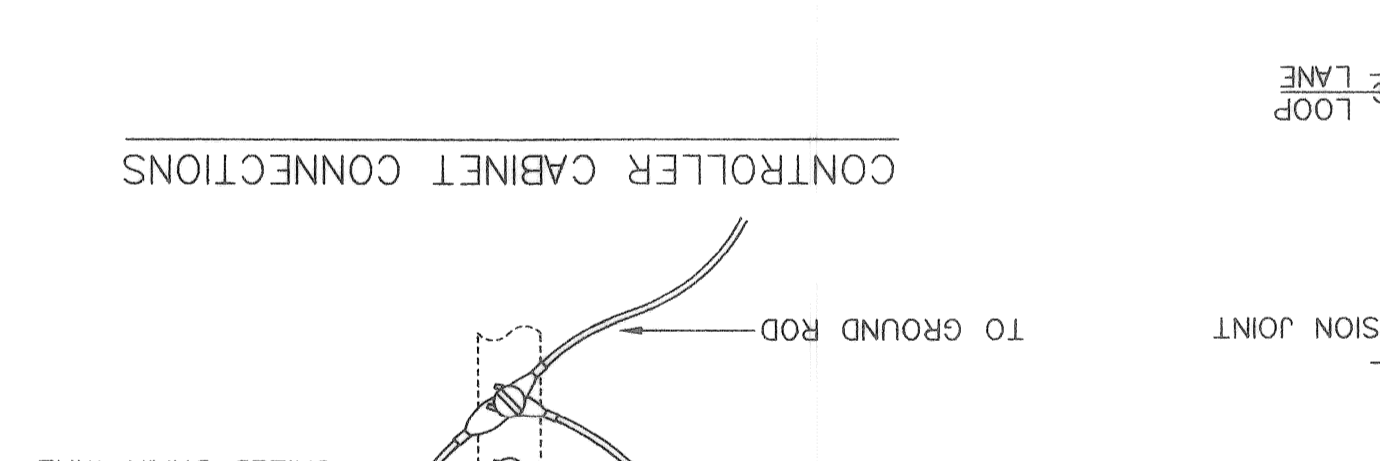
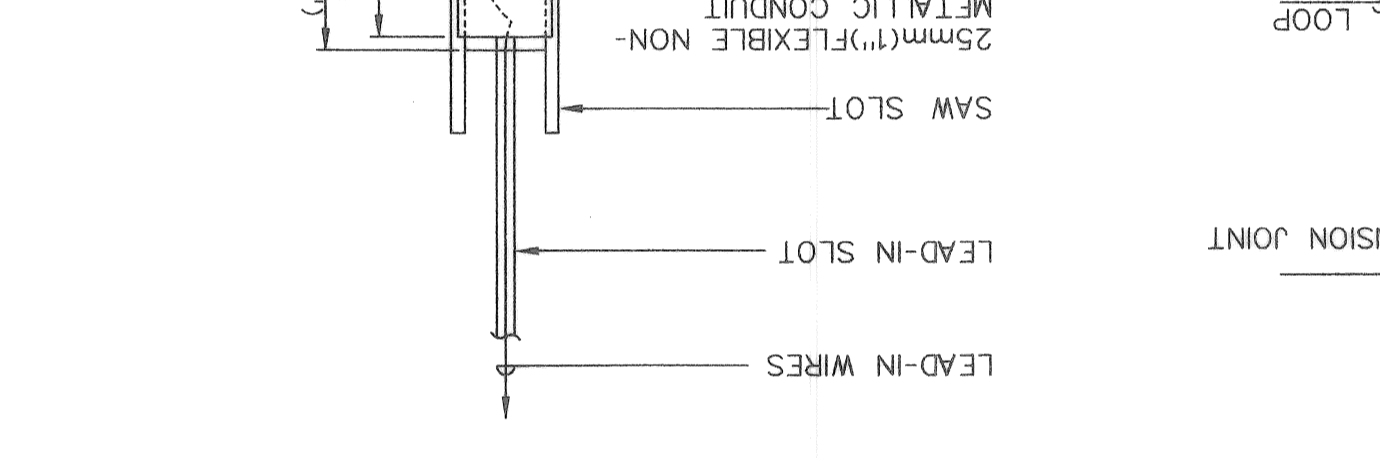
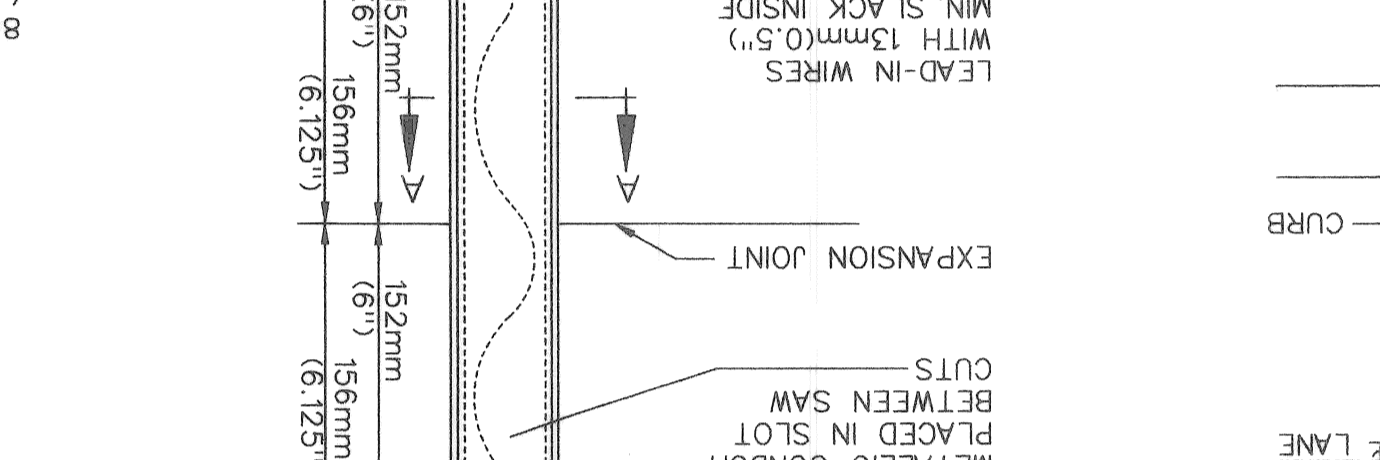
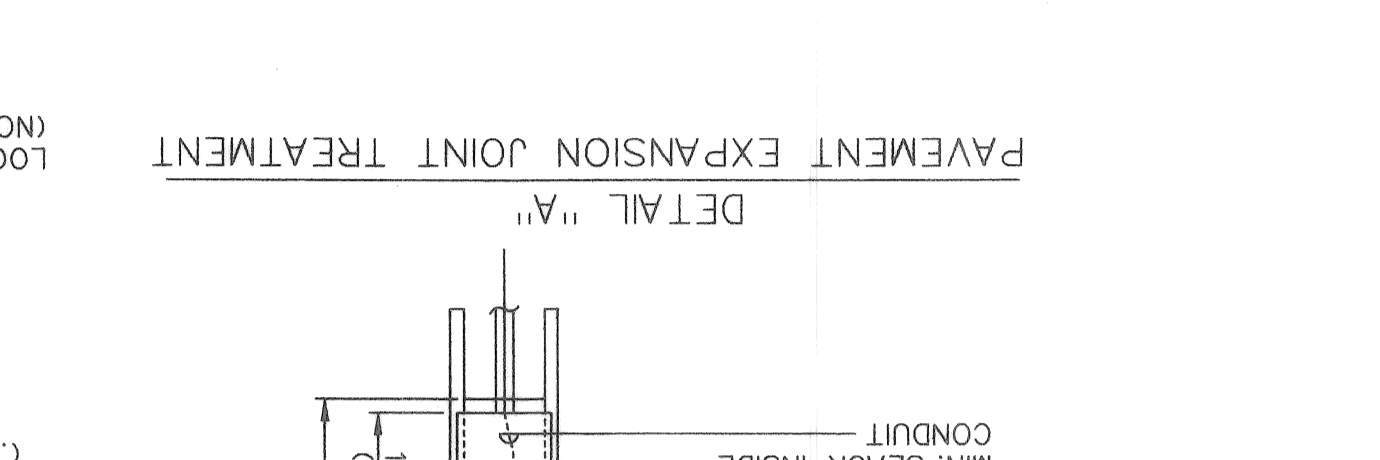
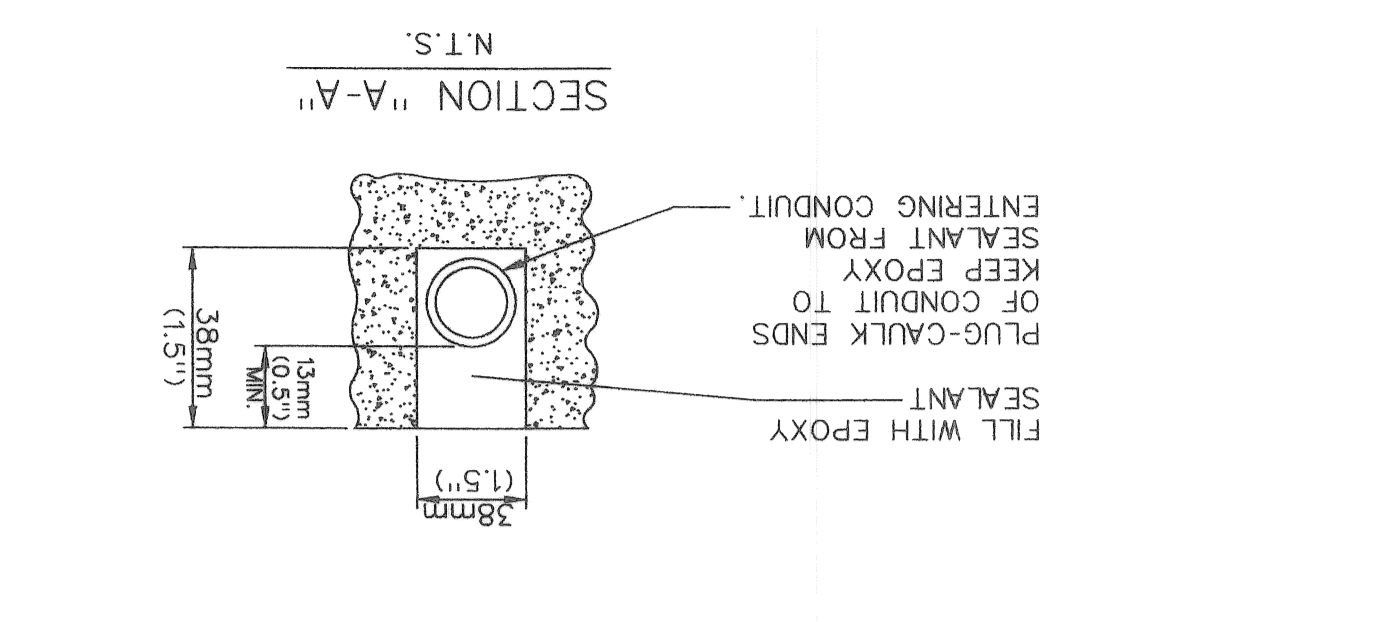
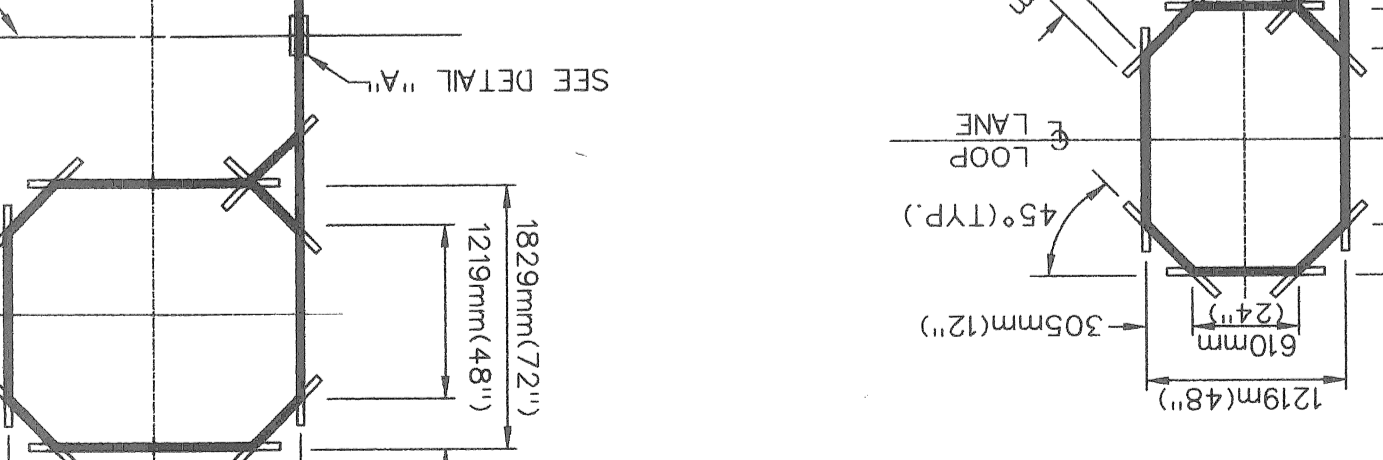
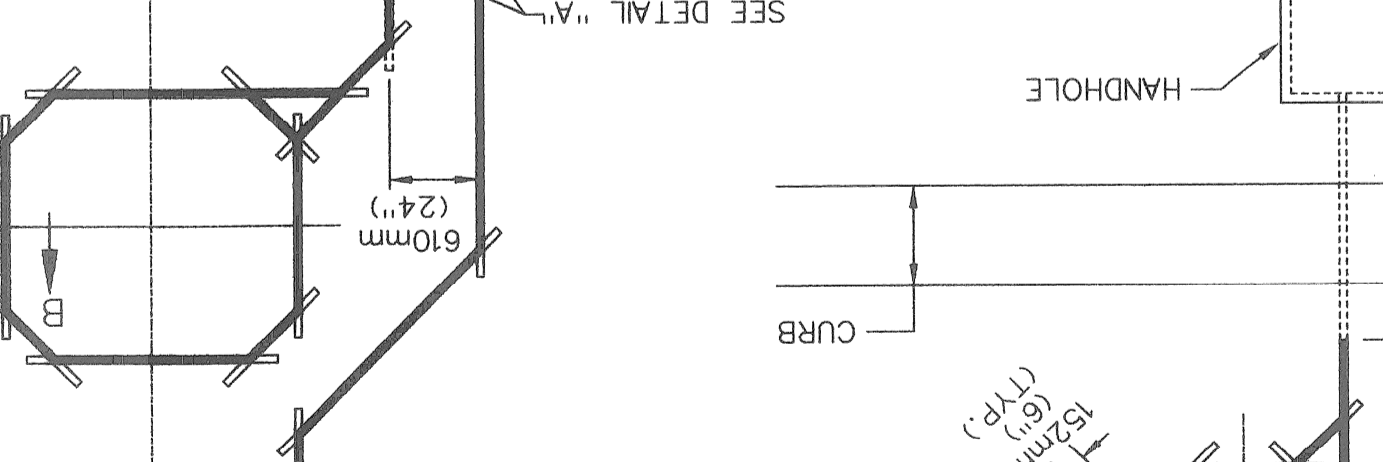
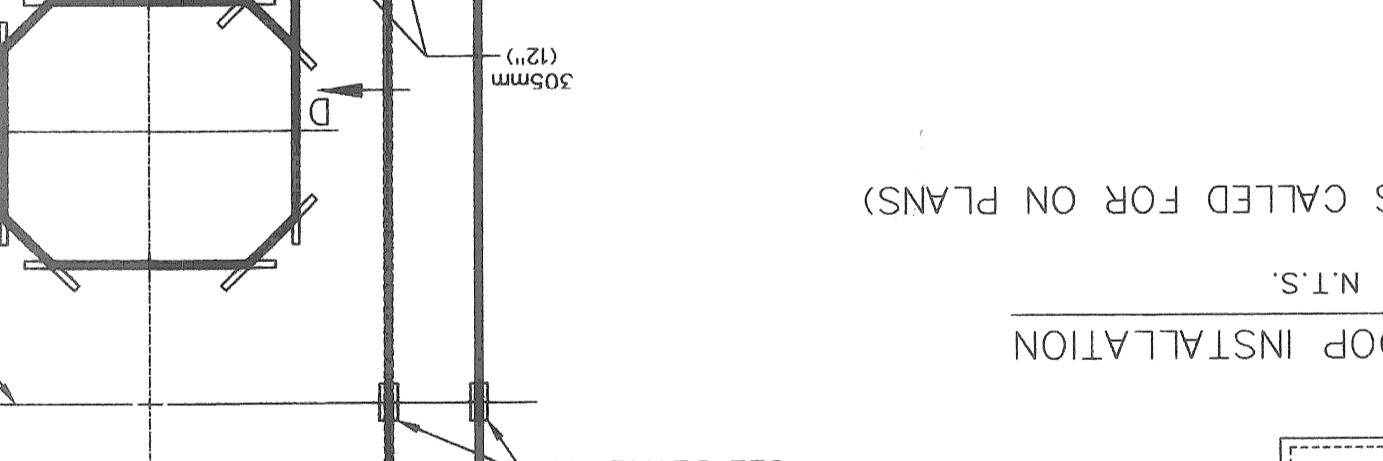
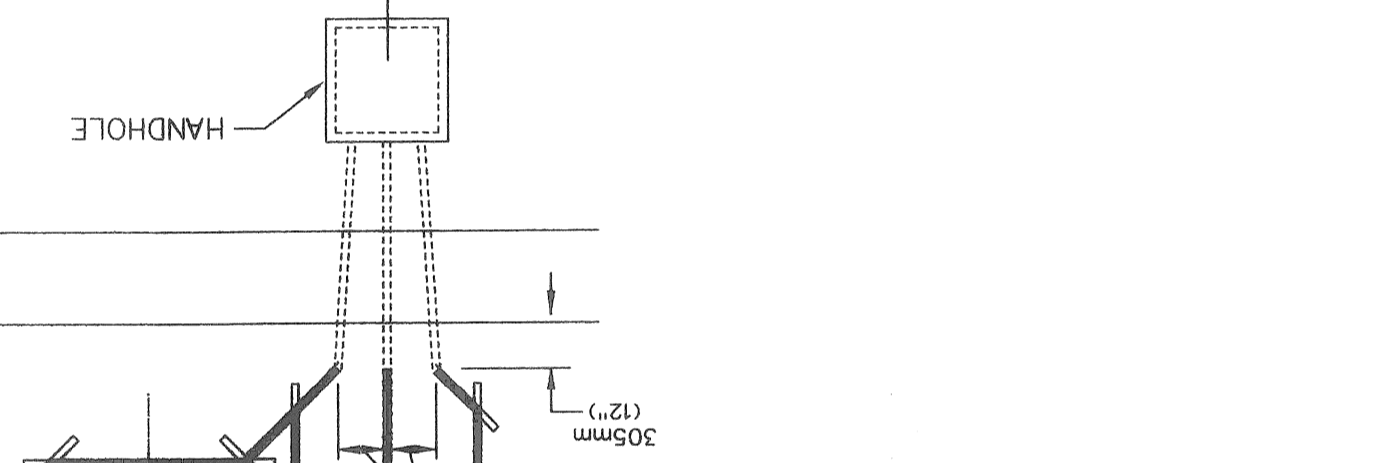
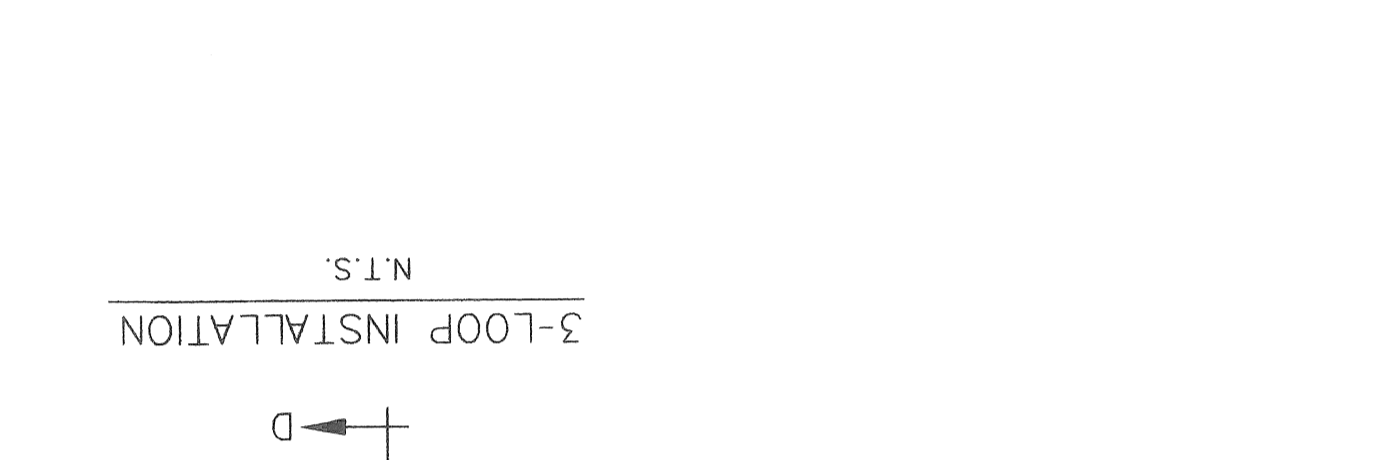
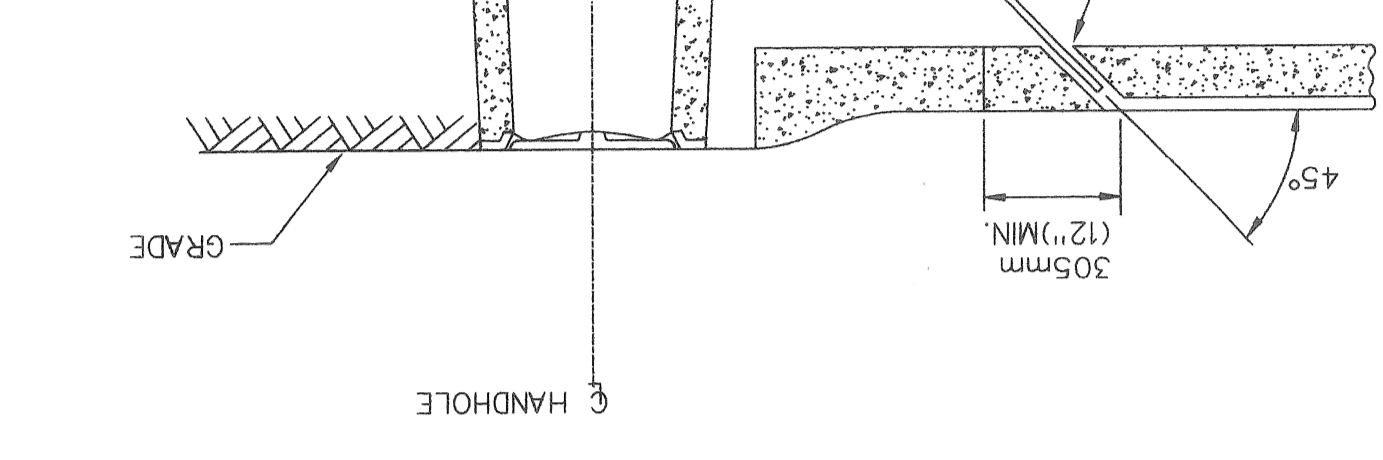
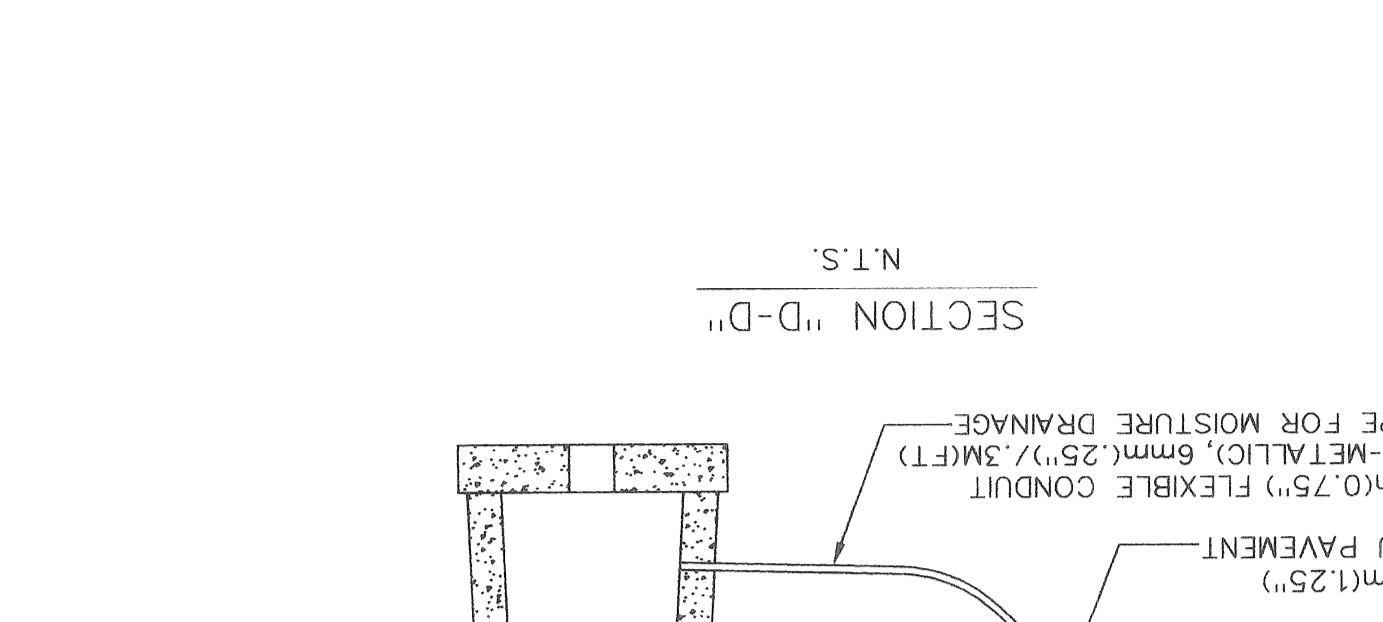
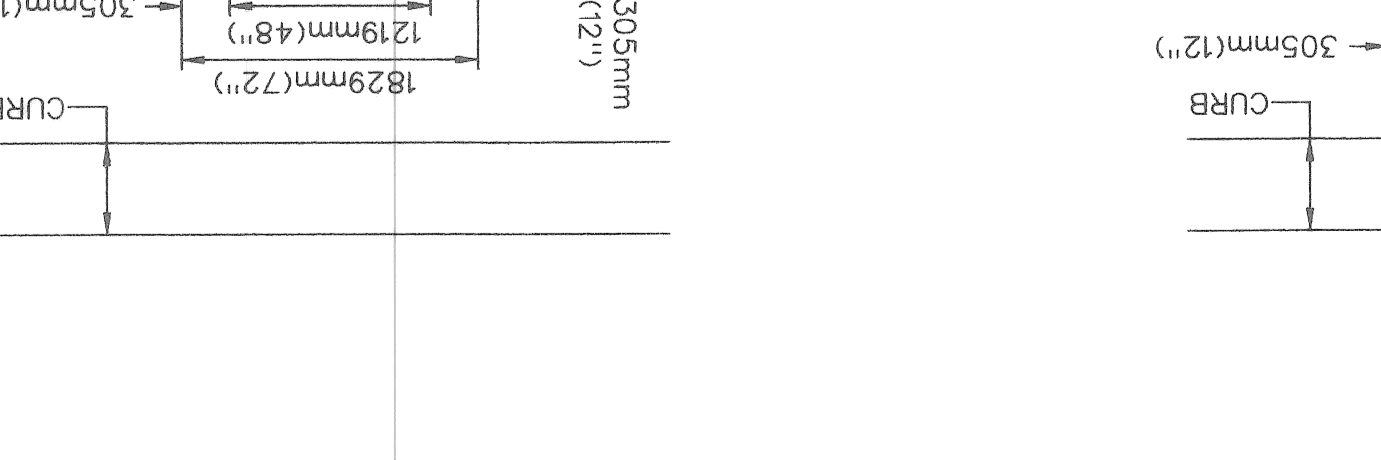
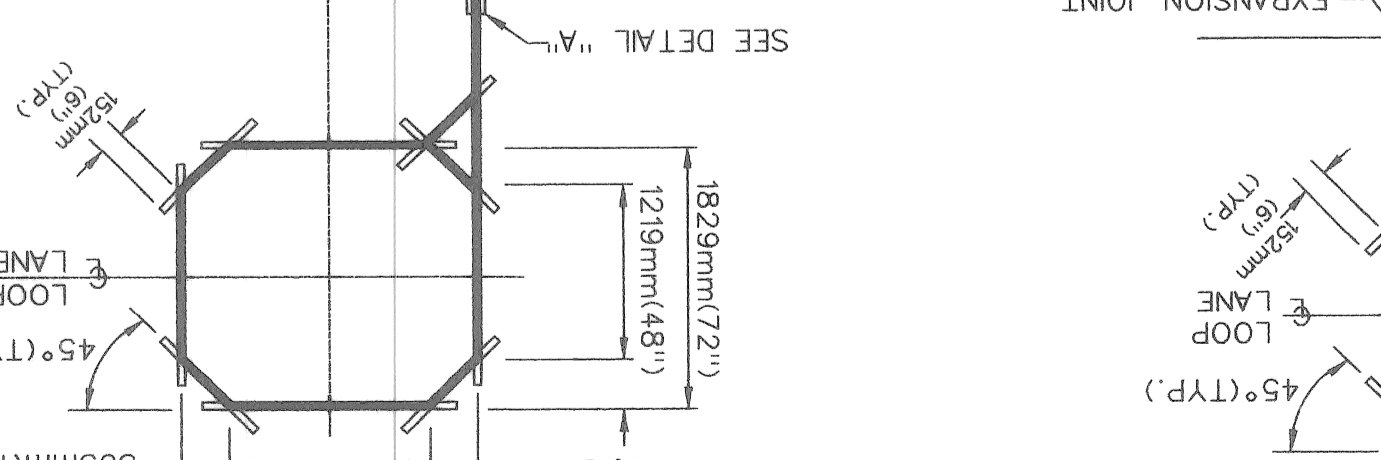
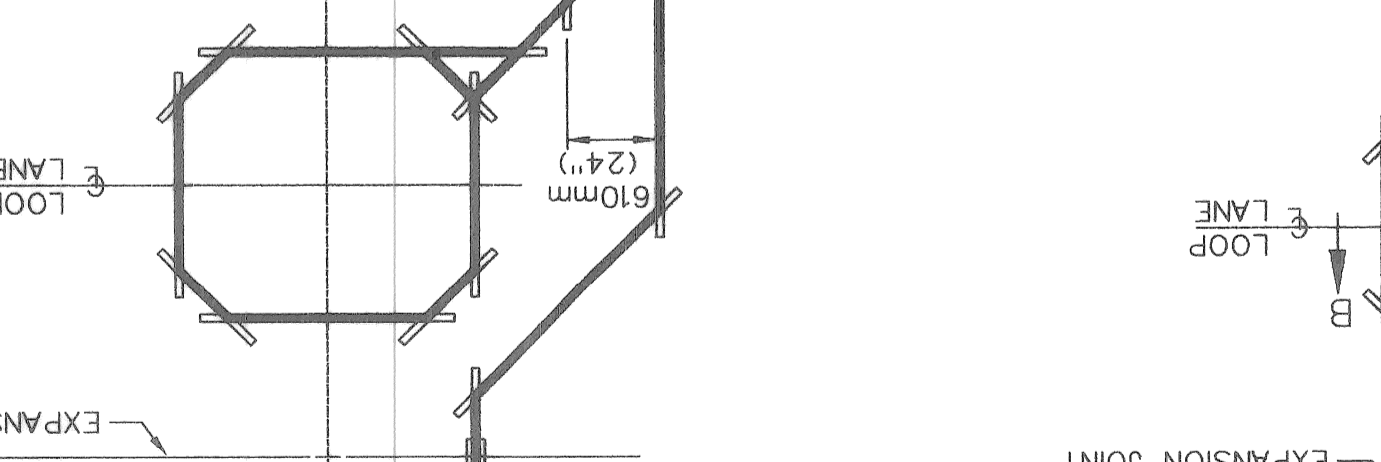
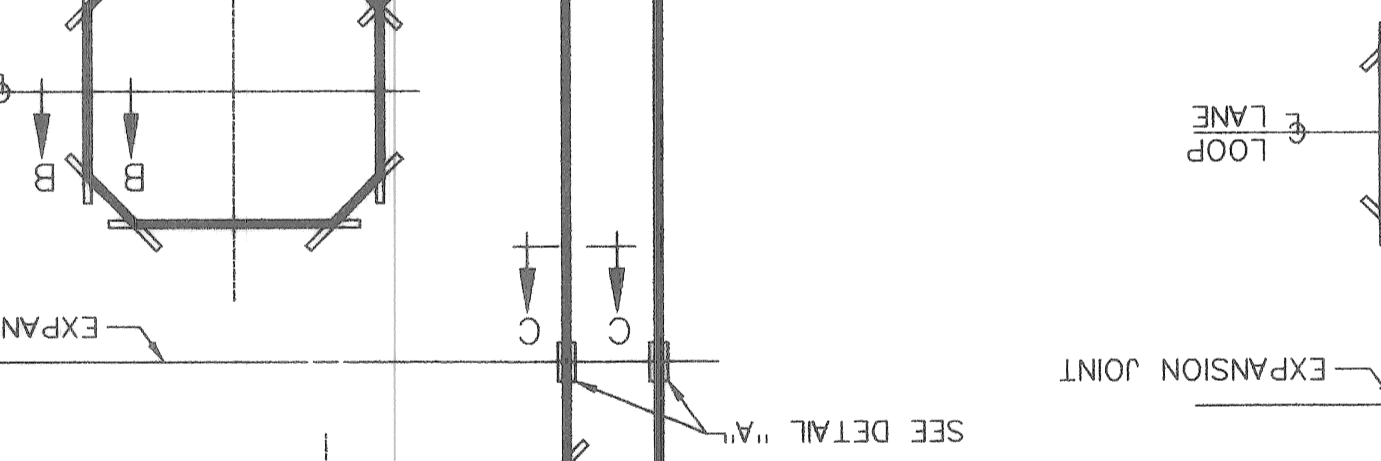
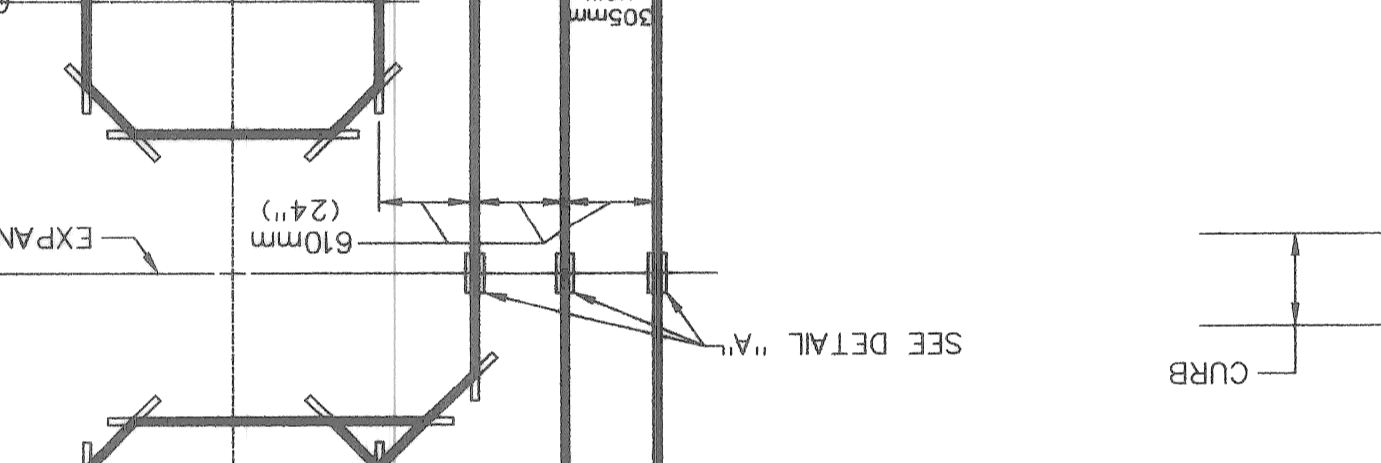
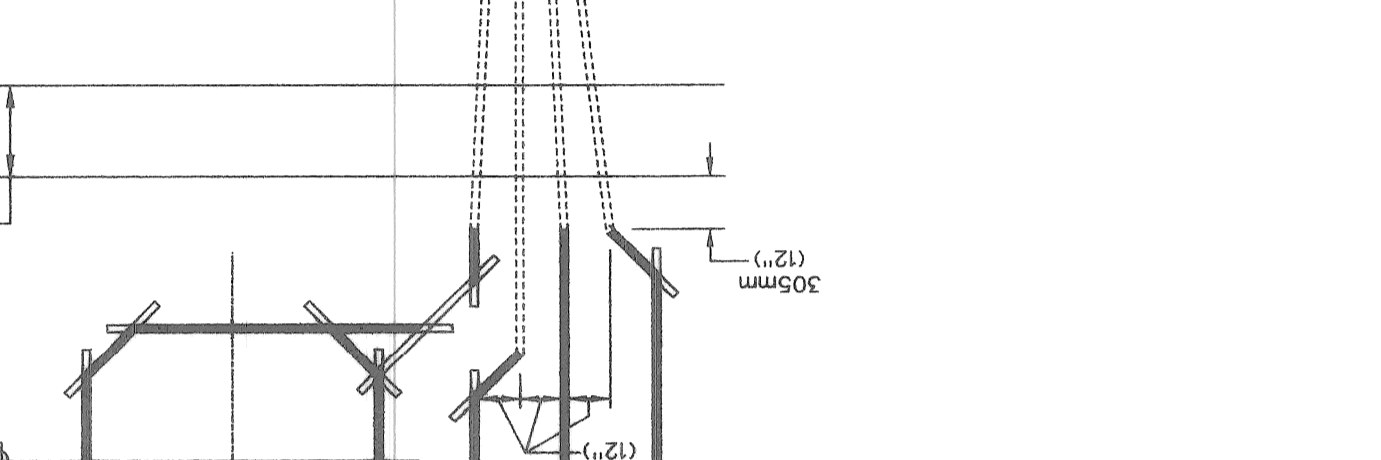
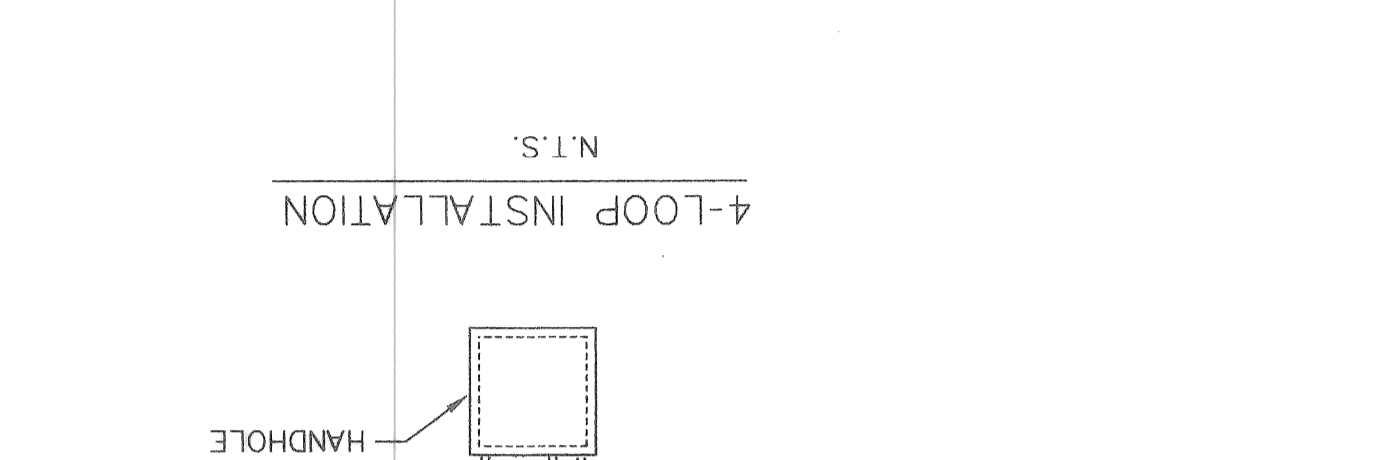
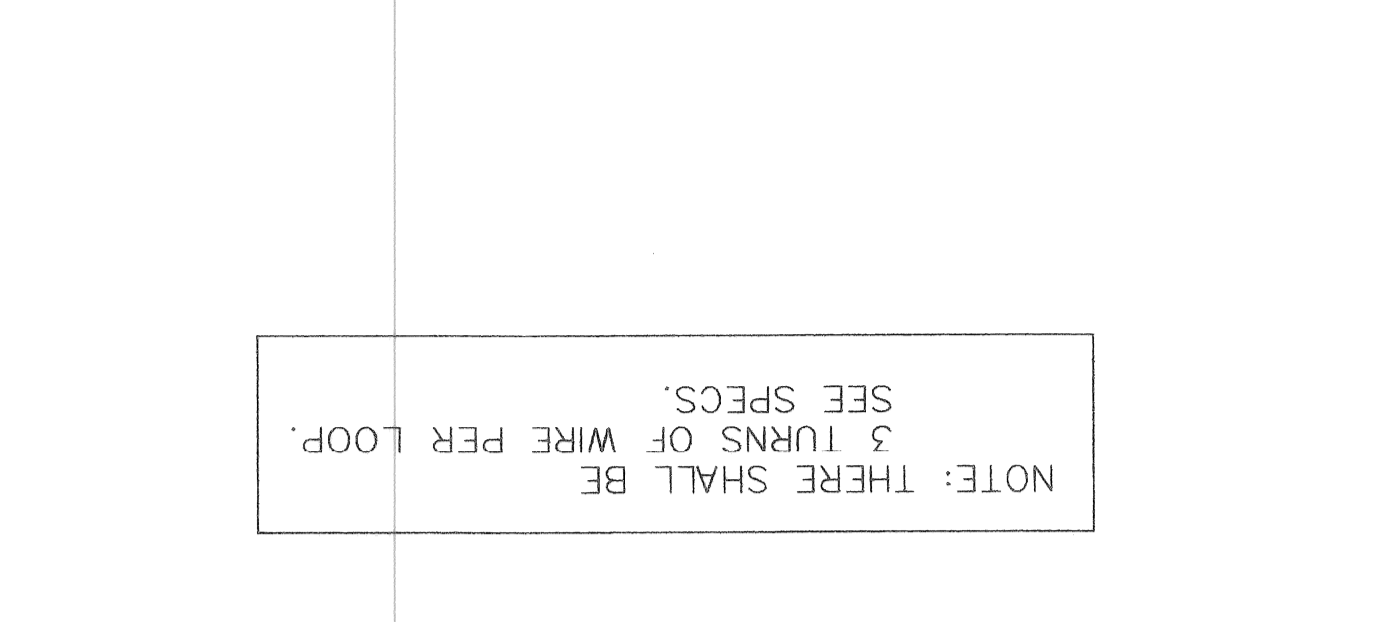
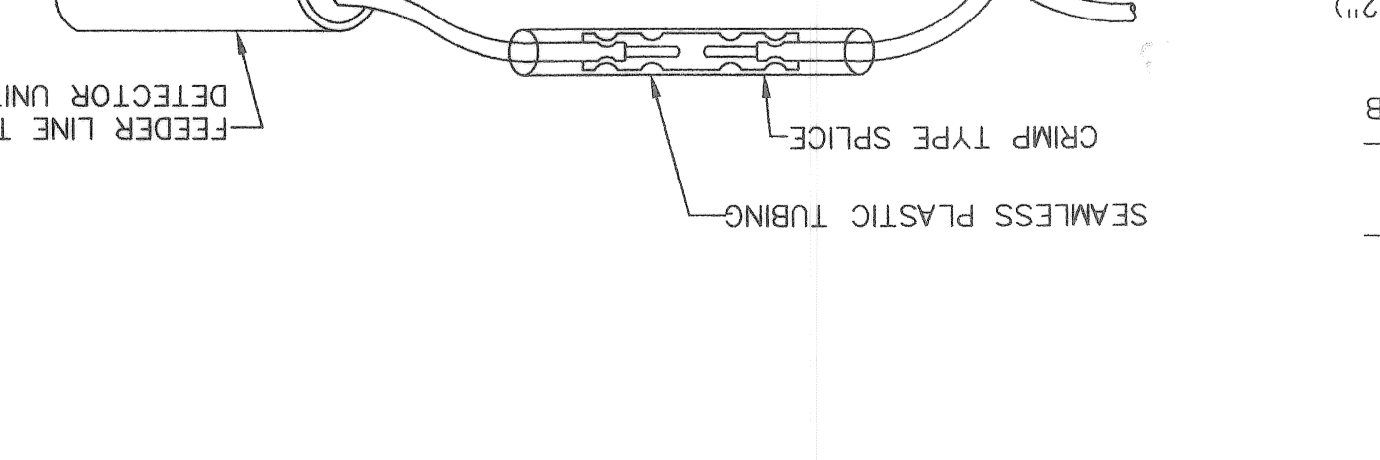
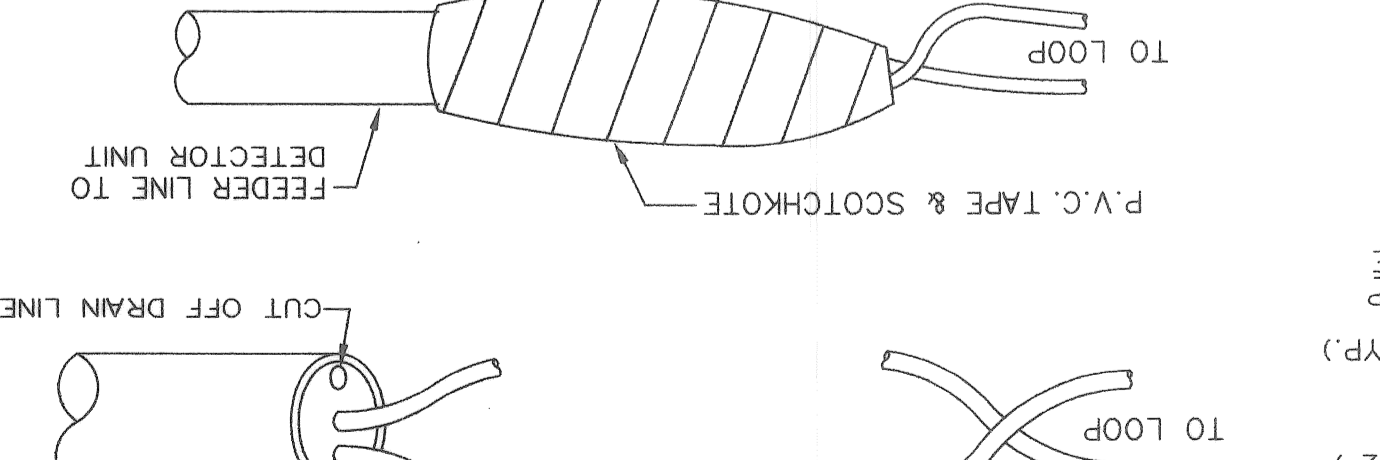
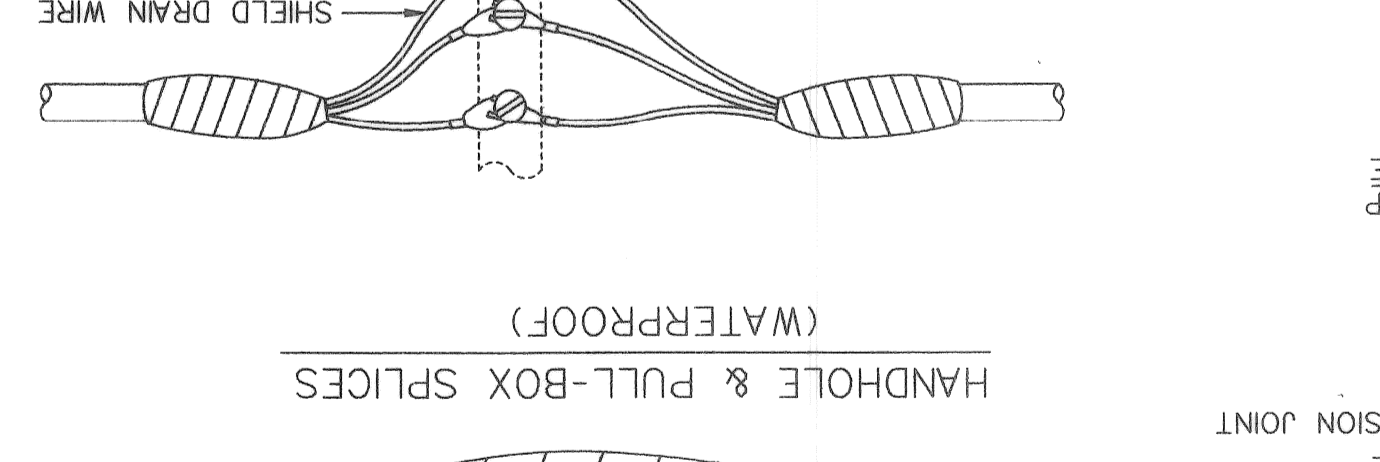
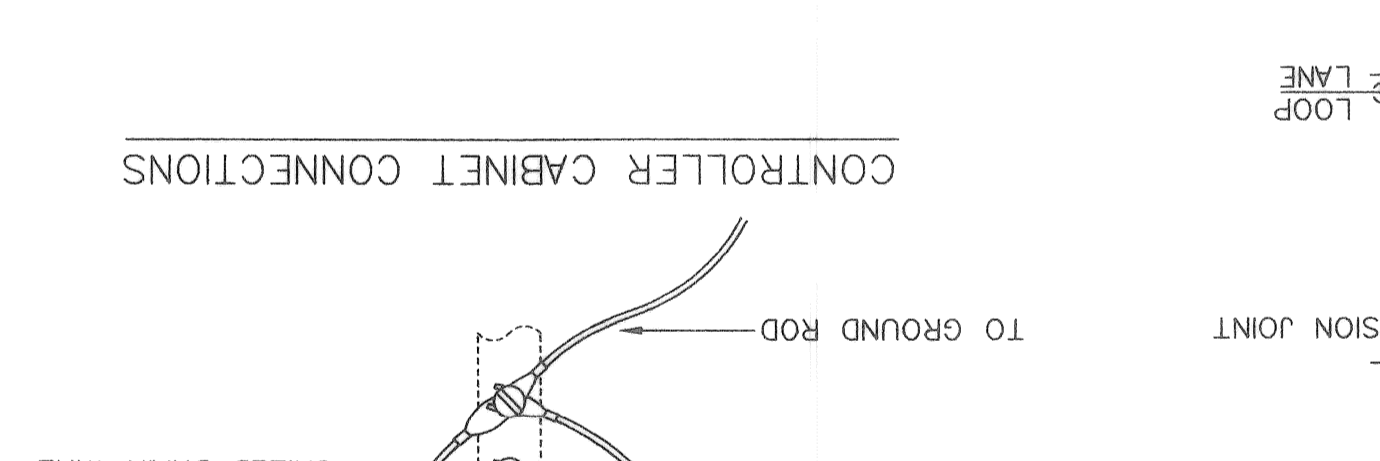
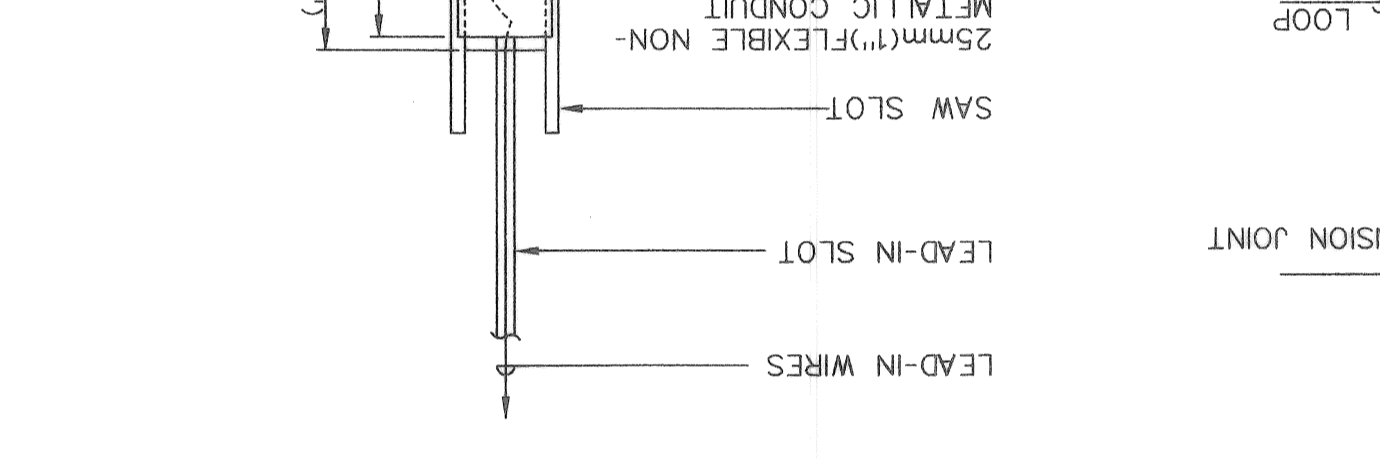
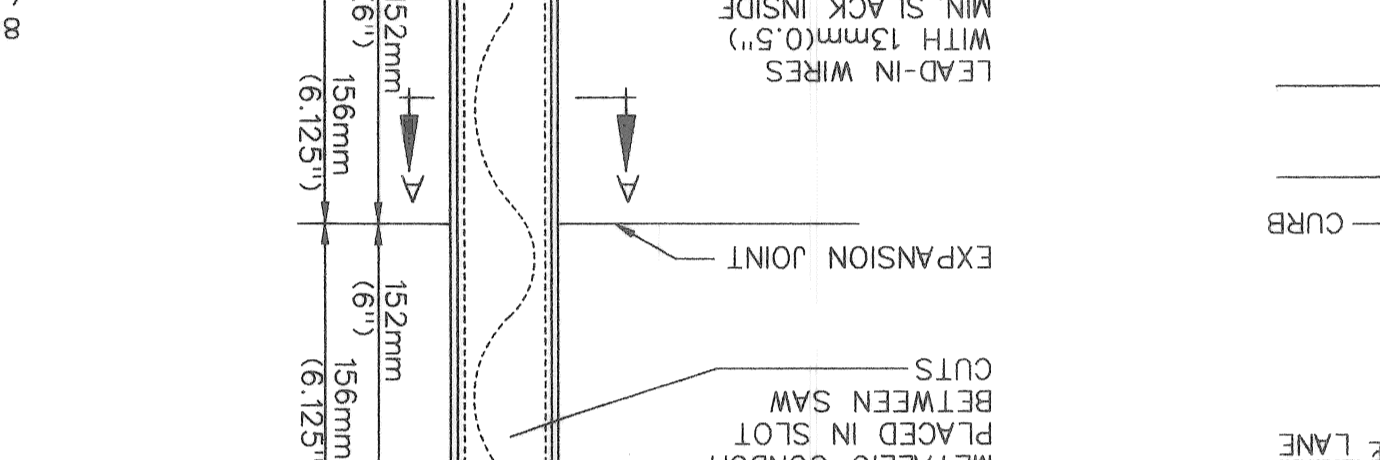
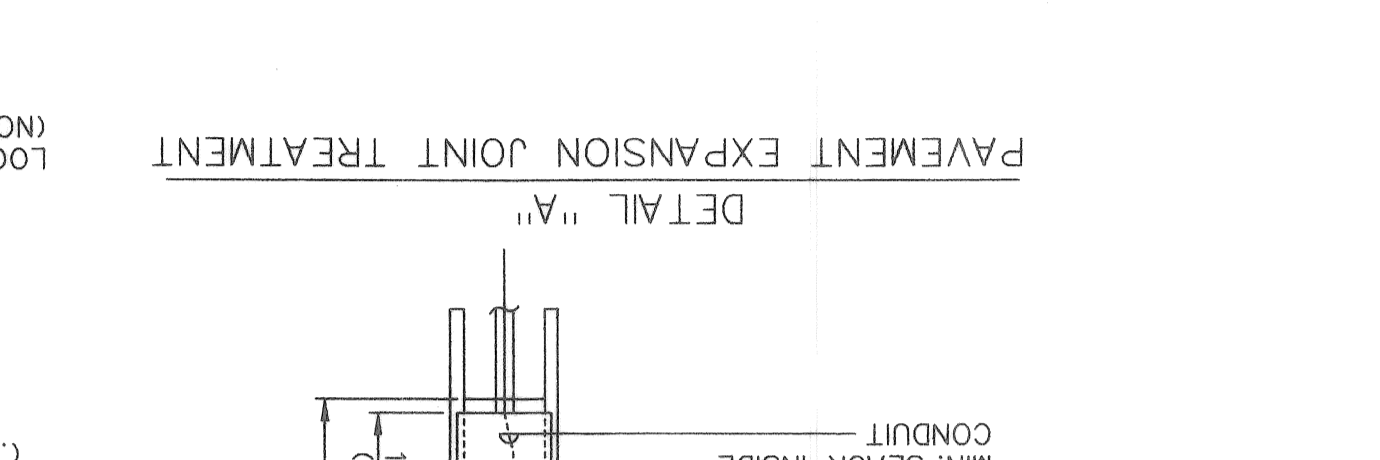
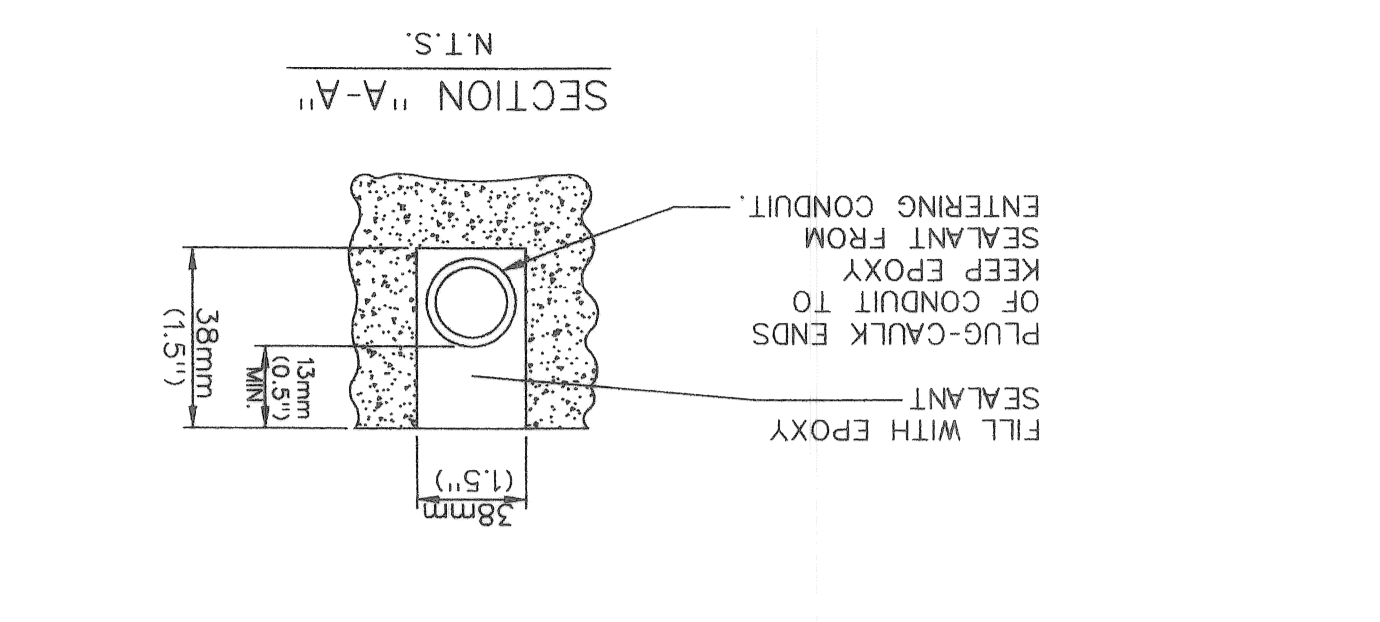
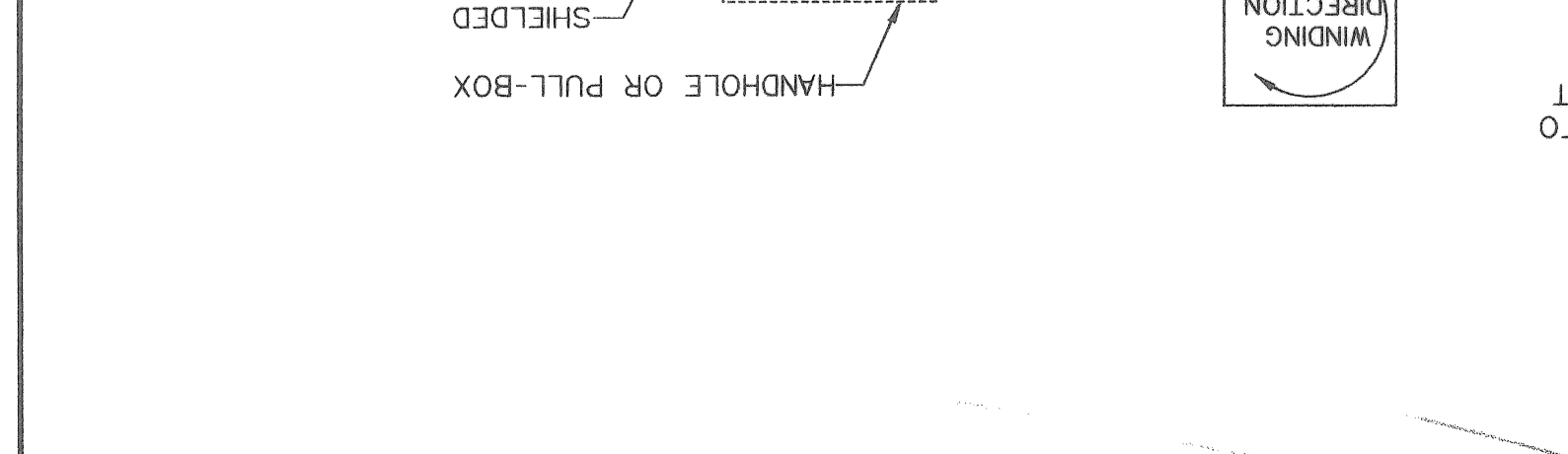
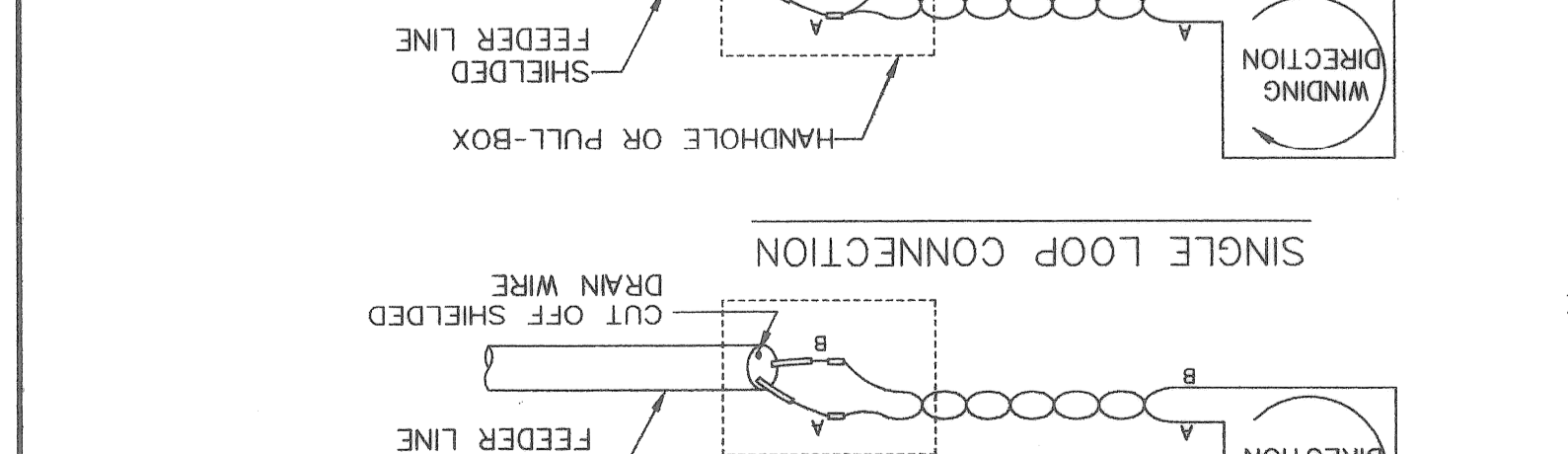
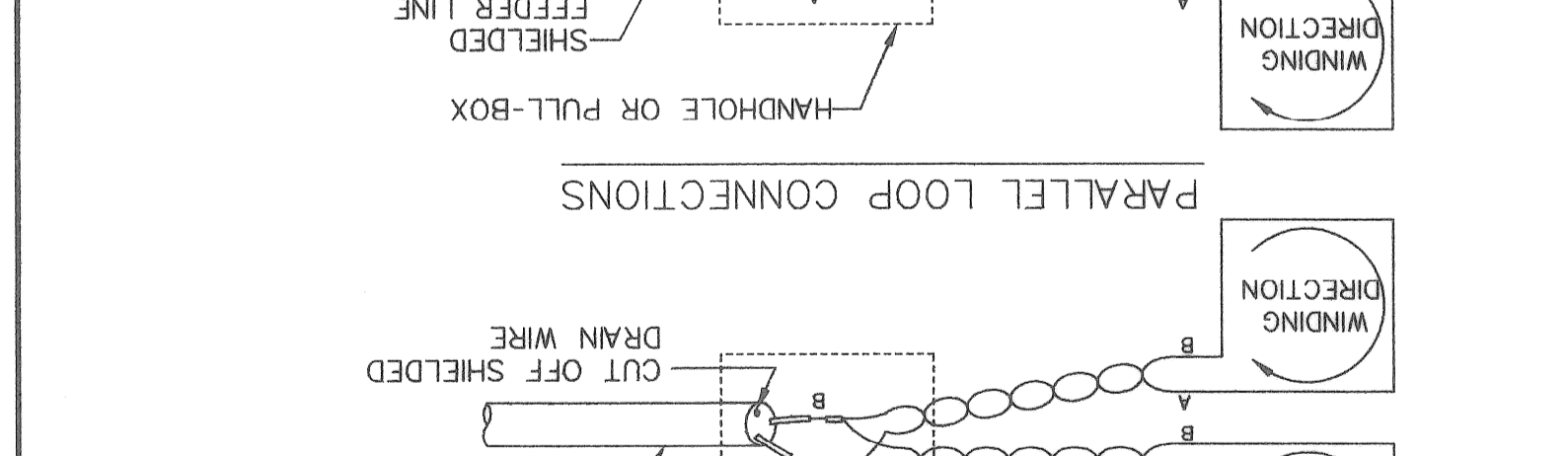
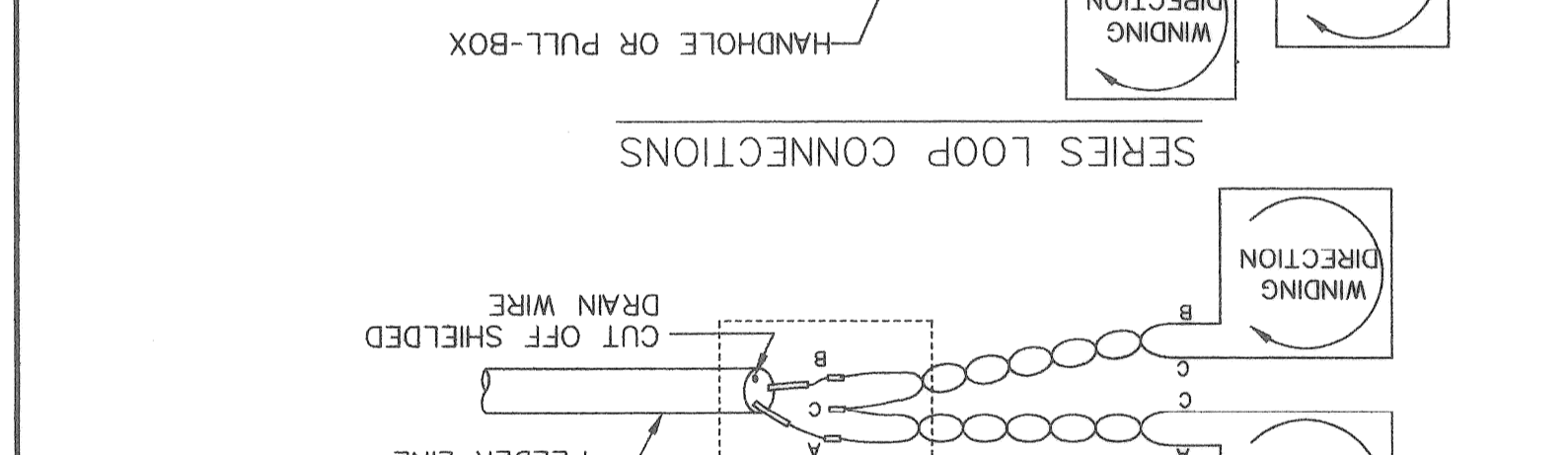
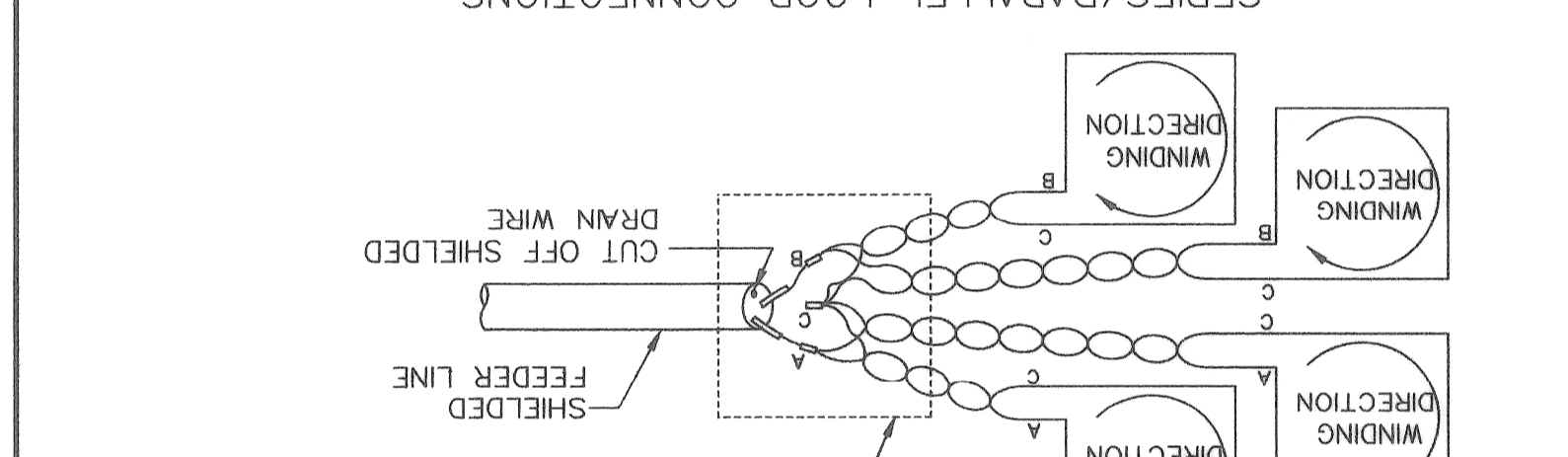
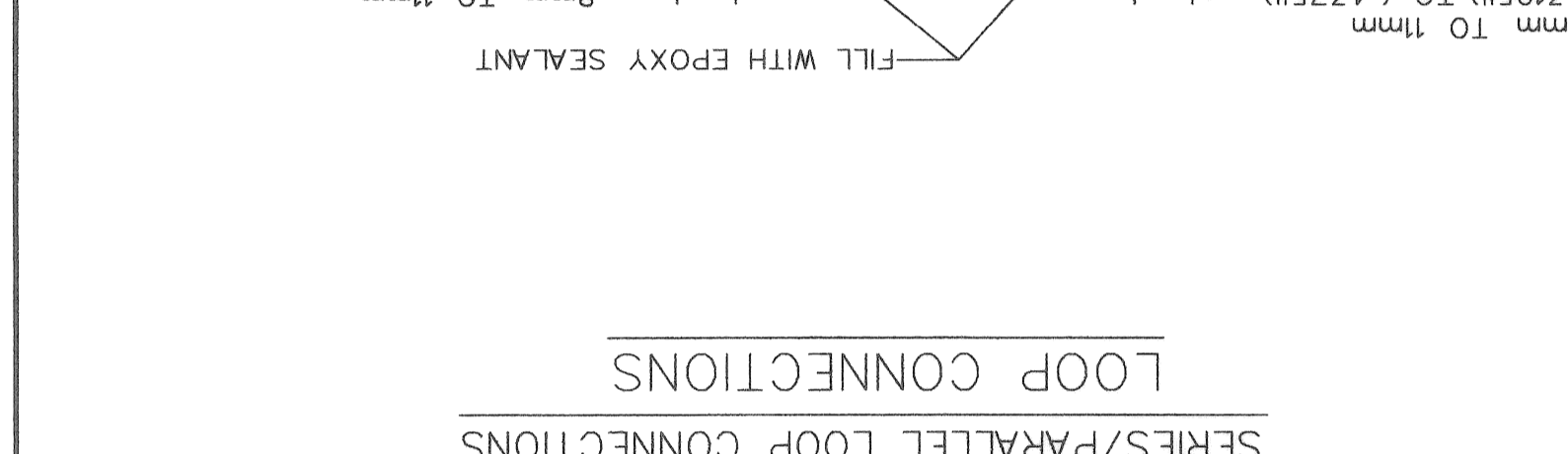
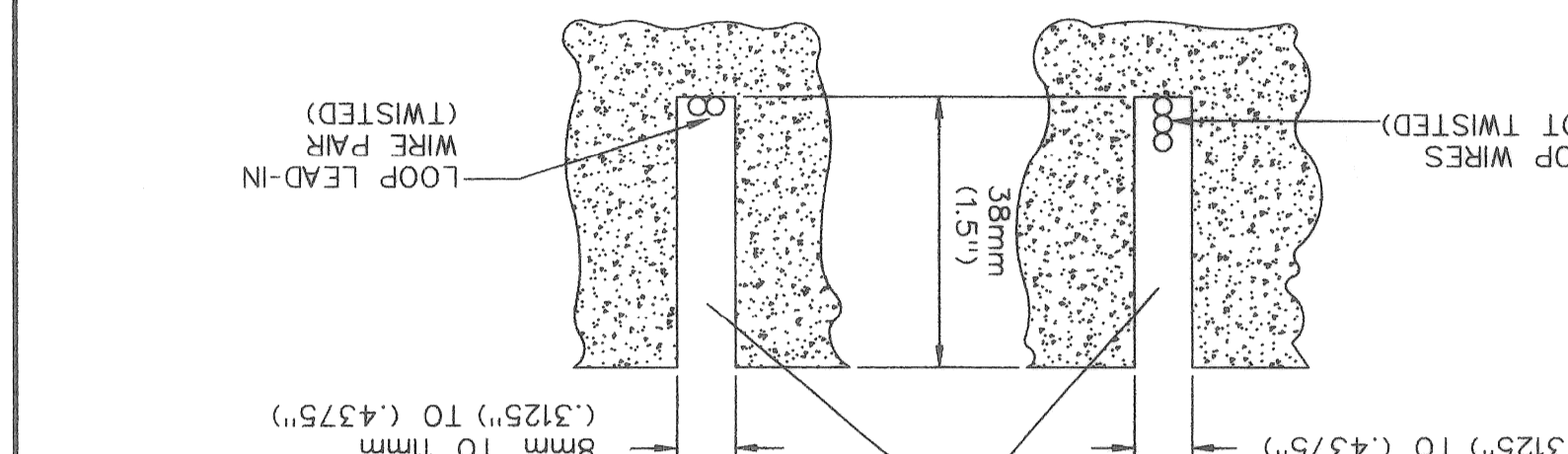
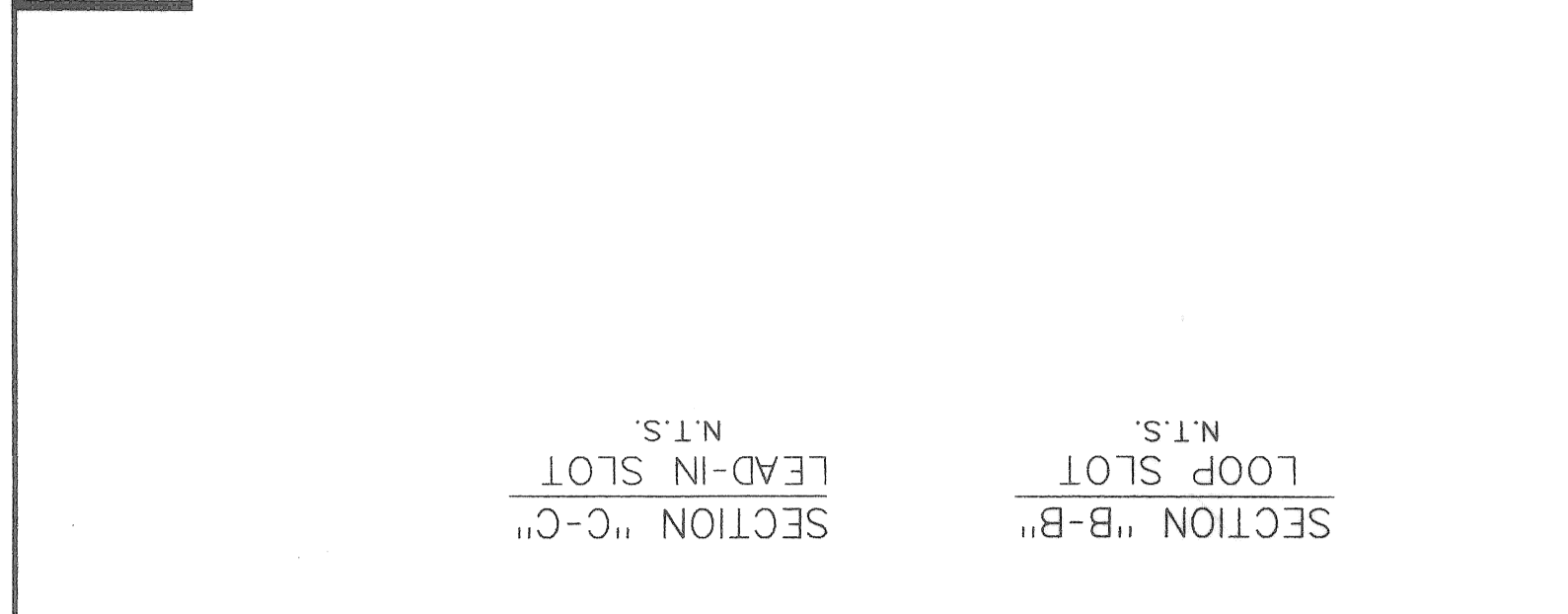








DATE	05/27/03	REVISION	FROM 05/27/03 SUBMIT #111
DATE	07/20/03	REVISION	
BY		F.B. PAGE	
PCJ		P.B. PAGE	
PCJ		T.O. LEVELS	



NOTE: THERE SHALL BE 3 TURNS OF WIRE PER LOOP. SEE SPECS.

(SIZE OF LOOP AS CALLED FOR ON PLANS)

AS CALLED FOR ON PLANS







