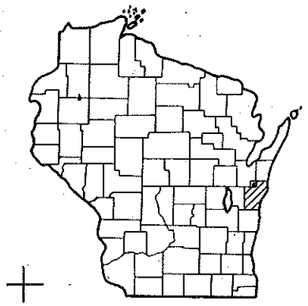
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1226-1-61	I 43-1(206)96	1

AFE 0036-17-20
REST AREAS 51 & 52

Index of Sheets

Total Sheets = 44



STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MILWAUKEE - GREEN BAY ROAD

MARIBEL ROAD — NORTH COUNTY LINE

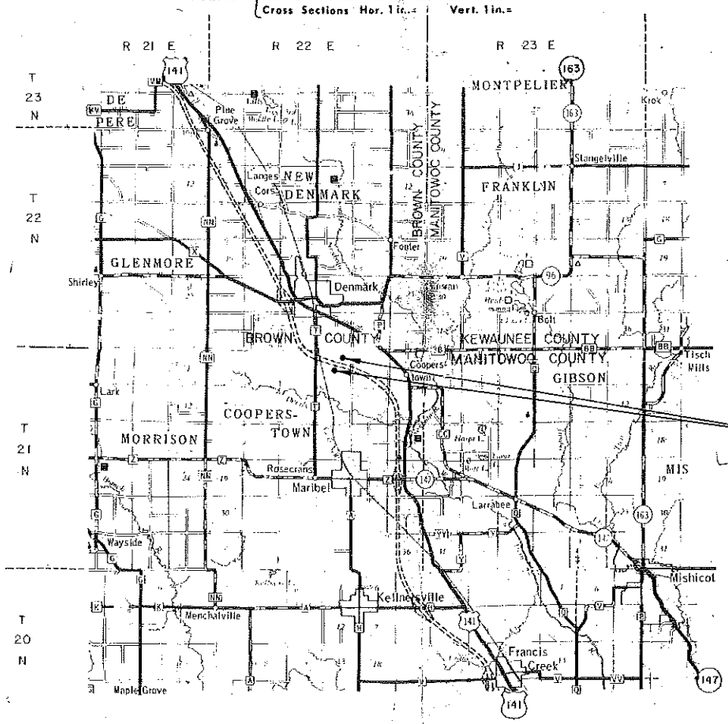
I.H. 43

MANITOWOC COUNTY

STATE PROJECT NUMBER

1226-1-61

Scales { Plan 1 in. = 100 ft.
Profile Hor. 1 in. = 100 ft. Vert. 1 in. = 10 ft.
Cross Sections Hor. 1 in. = Vert. 1 in. =



GN

Layout
Scale 0 1 2 MILES

Design Designation

CONTROL OF ACCESS	=	FULL
A. D. T. 1974	=	5,400
A. D. T. 1994	=	9,600
D. H. V.	=	1,440
D.	=	60-40
T.	=	8%
V.	=	70 M.P.H.

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven, Barbed
Lot Line
Corporate or City Limits
Property Line — Pt. + 32.6
Traveled Way or P. E.
Railroads
Base or Survey Line

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only — +61.7 / 35.2
Marsh
Hedge
Trees
Ground Elevation — Datum Line 73.9
Grade Elevation — Datum Line 76.16

NOTE: * ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, SOUTH ZONE.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Surveyor DISTRICT 3 District Checker G.F.W.
Designer W.F.S. C.O. Checker
District Supervisor L.M.R. C.O. Coordinator

Approved:
Date 12/1/79 District Transportation Director

Approved:
Date 11/9/79 Chief Design Engineer

Approved:
Date 11/12/79 Director of Development

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 5 WISCONSIN DIVISION

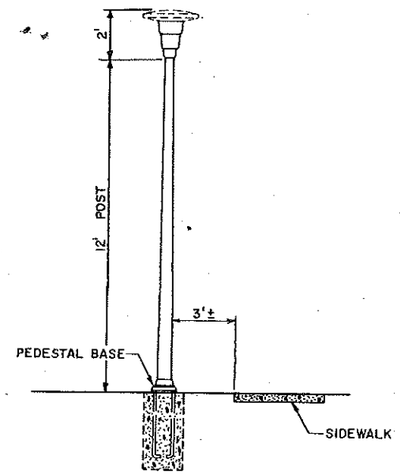
Approved:
Date _____ Division Administrator

1

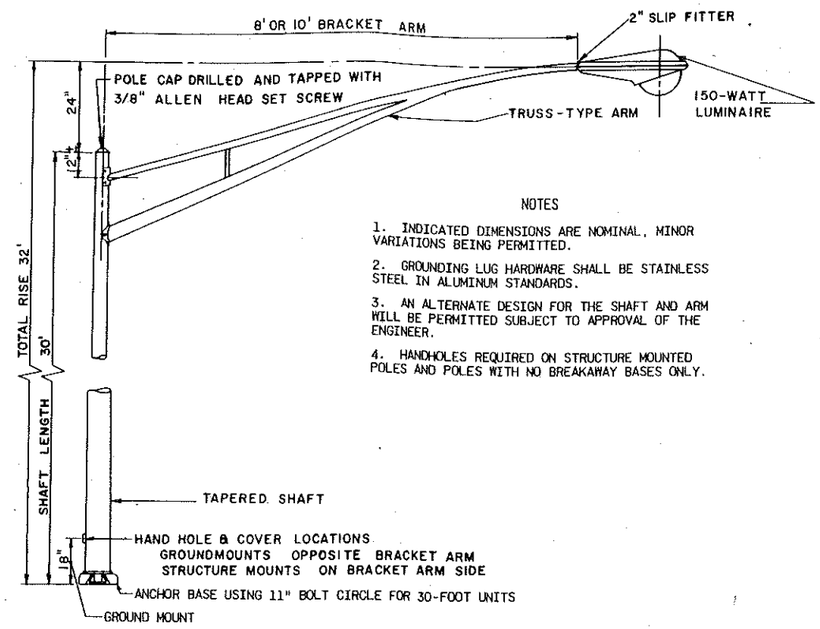
STATE PROJECT NUMBER	SHEET NO.
1226-1-61	2,3

LIGHTING DETAILS
FOR
REST AREAS 51 & 52

I.H. 43 MANITOWOC COUNTY



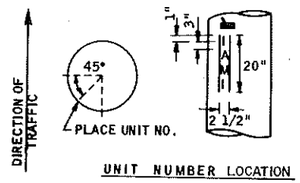
TYPICAL PLACEMENT
FOR
WALKWAY LIGHTING UNITS
14' MOUNTING HEIGHT



NOTES

1. INDICATED DIMENSIONS ARE NOMINAL, MINOR VARIATIONS BEING PERMITTED.
2. GROUNDING LUG HARDWARE SHALL BE STAINLESS STEEL IN ALUMINUM STANDARDS.
3. AN ALTERNATE DESIGN FOR THE SHAFT AND ARM WILL BE PERMITTED SUBJECT TO APPROVAL OF THE ENGINEER.
4. HANDHOLES REQUIRED ON STRUCTURE MOUNTED POLES AND POLES WITH NO BREAKAWAY BASES ONLY.

DETAIL FOR 30-FOOT MOUNTING HEIGHT LIGHTING UNITS



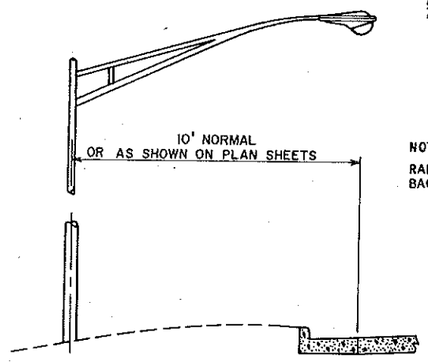
2"X 4" PATCH OF PRESSURE SENSITIVE YELLOW SCOTCHLITE OR EQUIVALENT ON ALL LIGHTING UNITS.

PLACE UNIT NUMBER 5-FOOT ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER OR SIDEWALK.

NUMERALS SHALL BE 3-INCH, SERIES "D".

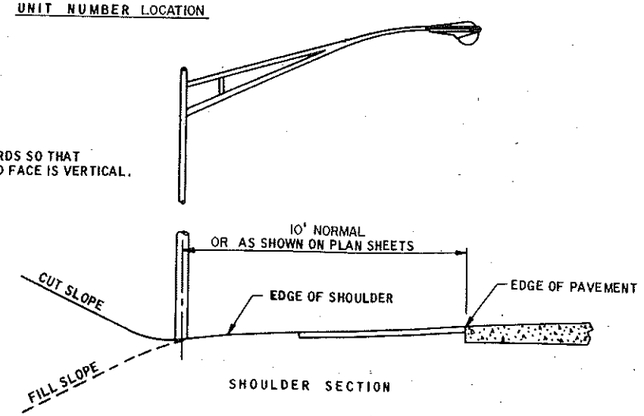
STENCIL FOR LETTERS AND NUMERALS WILL BE FURNISHED BY THE D.O.T. UPON REQUEST

UNIT NUMBER LOCATION



CURB SECTION

NOTE:
RAKE STANDARDS SO THAT BACK TAPERED FACE IS VERTICAL.



SHOULDER SECTION

TYPICAL PLACEMENT

LIGHTING UNIT DETAILS

STATE PROJECT NUMBER	SHEET NO.
1226-1-61	5

LIGHTING LAYOUT
SOUTHBOUND REST AREA 51
I.H. 43 MANITOWOC CO.

STA. 886+00, 18' LT.
III-150-10'-3A8

STA. 887+50, 28' LT.
III-150-10'-3A9

STA. 889+00, 16' LT.
III-150-10'-3A10

STA. 891+20, 10' LT.
III-150-8'-2A10

STA. 893+00 10' LT.
III-150-8'-2A9

STA. 894+85, 10' LT.
III-150-8'-2A8

STA. 896+75, 10' LT.
III-150-8'-2A7

STA. 894+00, 10' LT.
III-150-8'-2A6

STA. 892+50, 10' LT.
III-150-8'-2A5

STA. 890+70, 32' LT.
III-150-10'-2A4

STA. 889+20, 32' LT.
III-150-10'-2A3

STA. 888+35, 75' LT.
III-100-2A2

STA. 888+00, 38' LT.
III-150-10'-2A1

STA. 887+00, 10' LT.
III-150-10'-3A7

STA. 886+65, 136' RT.
III-150-10'-3A2.

STA. 887+15, 170' RT.
III-100-3A3

STA. 890+00, 34' RT.
III-150-10'-3A5

STA. 888+60, 130' RT.
III-150-10'-3A4.

STA. 886+25, 180' RT.
III-100-3A1

STA. 887+53, 65' LT.
III-100-1A1

STA. 886+70, 85' RT
III-150-10'-3A6

STA. 885+10, 10' LT.
III-150-8'-1A5

STA. 885+50, 32' LT.
III-150-10'-1A3

STA. 886+80, 32' LT.
III-150-10'-1A2

STA. 883+30, 10' LT.
III-150-8'-1A6

STA. 883+75, 10' LT.
III-150-8'-1A4

STA. 881+40, 10' LT.
III-150-8'-1A7

STA. 880+00, 10' LT.
III-150-8'-1A8

30'-3" P.V.C. CONDUIT (IN PLACE) STA. 885+80

30'-3" P.V.C. CONDUIT (IN PLACE) STA. 883+40

30'-3" P.V.C. CONDUIT (IN PLACE) @ STA. 894+75

24'-3" P.V.C. CONDUIT REQ'D.

28'-3" P.V.C. CONDUIT REQ'D.

30'-3" P.V.C. CONDUIT REQ'D.

TRUCK PARKING

CAR PARKING

REST BUILDING

TANK

50' X 150'

100' X 700'

GN

890

885

880

NOTE:

----- ALL ELECTRICAL CABLE FOR UNDERGROUND BURIAL IS NUMBER 6 WIRE. USE-RHH-RHW 120/240 VOLTS.

● WALKWAY LIGHT, 100 W, HPS, 14' MTG. HEIGHT 12' POST.

○—● 30' LIGHTING UNIT WITH MAST ARM, 150 W, HPS

LUMINAIRE CODE

STA. 893+35, 19' RT.
III-150-10'-1 A 13

- STATION AND SET BACK / DISTANCE FROM REFERENCE LINE
- LIGHTING UNIT NUMBER IN CIRCUIT
- DISTRIBUTION CENTER
- CIRCUIT NUMBER
- MAST ARM BRACKET LENGTH IN FEET
- LAMP WATTAGE
- DISTRIBUTION TYPE

Catalog No. 1220

STATE PROJECT NUMBER	SHEET NO.
1226-1-61	5.1

LIGHTING LAYOUT

NORTHBOUND REST AREA 52

I.H. 43 MANITOWOC CO.

15 X 1301
20 X 600
15 X 601
15 X 700
150 X 600

GN

885

890

895

900

STA. 884+15, 10' RT.
III-150-8'-1A6

STA. 885+65, 10' RT.
III-150-8'-1A7

STA. 887+30, 10' RT.
III-150-8'-1A8

30'-3" P.V.C. CONDUIT
(IN PLACE) @ STA. 887+20

STA. 888+95, 10' RT.
III-150-8'-1A5

STA. 889+10, 10' RT.
III-150-8'-1A9

STA. 890+90, 10' RT.
III-150-8'-1A10

STA. 891+00, 32' RT.
III-150-10'-1A4

STA. 892+40, 32' RT.
III-150-10'-1A3

STA. 892+00, 45' LT.
III-150-10'-3A5

STA. 893+20, 65' RT.
III-100-1A2

STA. 894+42, 155' LT.
III-100-3A3

STA. 893+30, 130' LT.
III-150-10'-3A4

26'-3" P.V.C. CONDUIT REQ'D.

28'-3" P.V.C. CONDUIT REQ'D.

STA. 893+65, 36' RT.
III-150-10'-1A1

26'-3" P.V.C. CONDUIT REQ'D.

STA. 894+00, 65' RT.
III-100-2A1

WELL

STA. 895+25, 180' LT.
III-100-3A1

REST BUILDING

TANK

22'-3" P.V.C. CONDUIT REQ'D.

STA. 894+60, 136' LT.
III-150-10'-3A2

TRUCK PARKING

CAR PARKING

STA. 894+80, 32' RT.
III-150-10'-2A2

STA. 896+25, 32' RT.
III-150-10'-2A3

STA. 896+30, 130' LT.
III-150-10'-3A6

STA. 898+25, 10' RT.
III-150-8'-2A4

STA. 901+05, 10' RT.
III-150-8'-2A7

STA. 899+10, 10' RT.
III-150-8'-2A6

30'-3" P.V.C. CONDUIT
(IN PLACE) @ STA. 899+00

STA. 903+00, 10' RT.
III-150-8'-2A8

STA. 897+20, 10' RT.
III-150-8'-2A5

30'-3" P.V.C. CONDUIT
(IN PLACE) @ STA. 895+60

STA. 895+35, 10' RT.
III-150-10'-3A7

STA. 893+90, 10' RT.
III-150-10'-3A8

160'-3" P.V.C. CONDUIT,
(IN PLACE) @ STA. 895+65

STA. 895+00, 28' RT.
III-150-10'-3A9

STA. 893+35, 19' RT.
III-150-10'-3A10

NOTE:

——— ALL ELECTRICAL CABLE FOR UNDERGROUND BURIAL IS NUMBER 6 WIRE, USE-RHH-RHW, 120/240 VOLTS

● WALKWAY LIGHT, 100 W, HPS, 14' MTG. HEIGHT, 12' POST

○—● 30' LIGHTING UNIT WITH MAST ARM, 150 W, HPS.

LUMINAIRE CODE

STA. 893+35, 19' RT.
III-150-10'-1A13

- STATION AND SET BACK DISTANCE FROM REFERENCE LINE
- LIGHT UNIT NUMBER IN CIRCUIT
- DISTRIBUTION CENTER
- CIRCUIT NUMBER
- MAST ARM BRACKET LENGTH IN FEET
- LAMP WATTAGE
- DISTRIBUTION TYPE

Catalog No. 2130-D142

400 X 15'
300 X 60'

STATE PROJECT NUMBER	SHEET NO.
1226-1-61	52
SOUTHBOUND REST AREA NUMBER 51	

SEWER R
20 TRUCKS
HANDICAP RAMP
CONCRETE CURB & GUTTER 30-INCH, TYPE "A" (IN PLACE)
CONCRETE SIDEWALK 6-INCH (IN PLACE)
FUEL TANK (REQ'D)
REST BLDG.
GRID CO-ORDINATES Ç OF BUILDING N = 852,412.304 E = 2,571,852.946
GRADING CONTRACT SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH TO THIS LINE
TOPSOIL FOR THE BUILDING AREA HAS BEEN STOCKPILED BY THE GRADING CONTRACTOR FOR USE IN THIS BUILDING CONTRACT TO FINISH THE SHADED AREA. (TOPSOIL, FERTILIZE & SOD REQ'D)
30" CONCRETE CURB & GUTTER, TYPE "A" (IN PLACE)
TRUCK RAMP CONSTRUCTION R
CAR RAMP CONSTRUCTION R
3" X 30' PVC. CONDUIT (IN PLACE)
BITUMINOUS SURFACE
LIMITS OF BITUMINOUS SURFACE
HANDICAP PARKING STALLS
50 CARS
GRADING CONTRACT SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH TO THIS LINE
PULL BOX (IN PLACE)
6'X9' TRAFFIC DETECTOR LOOP & JUNCTION BOX (IN PLACE) WIRING REQ'D
BURIED ELECTRIC ENTRANCE LINE (BY OTHERS)
P.C. = STA. 887+47.92
P.T. = STA. 886+37.14
P.C. = STA. 884+85.59
EQUATION: STA. 887+98.90 BK. = STA. 885+24.11 AH.
P.T. = STA. 892+03.20
P.C. = STA. 892+61.6
P.T. = STA. 885+09.52
P.C. = STA. 881+01.25
2-4" X 58' P.V.C. CONDUIT REQ'D
M.H. NO. 3
DRAINAGE BEDS
DITCH PERIMETER OF DRAINAGE BEDS
DRAIN FIELD "C" (IN PLACE)
DRAIN FIELD "D" (IN PLACE)
VENT EVERY 4TH LATERAL
SNOW FENCE IN PLACE (TO BE REMOVED)
DISTRIBUTION BOX
OBSERVATION PIPES
ALTERNATE LOCATION
ELECTRIC LINE TO N.B. REST AREA (BY OTHERS)
2-4" X 42' P.V.C. CONDUIT (IN PLACE)
SOUTHBOUND ROADWAY
SOUTHBOUND ROADWAY R
P.C. = STA. 885+38.88

NOTE:
1. SCALE 1" = 50'
2. ALL GRADES ARE PAVEMENT GRADES.

NOTE

LOCATION OF INITIAL SEEPAGE BEDS PROVIDE FOR DUAL OPERATION. ONE FIELD WORKING WHILE THE OTHER FIELD RESTS. GRADING CONTRACTOR HAS FENCED OFF SEEPAGE BED AREAS PRIOR TO CONSTRUCTION. NO EQUIPMENT OR ANY STORAGE OF MATERIALS ALLOWED IN THE AREA BOUNDED BY THE SNOW FENCE.

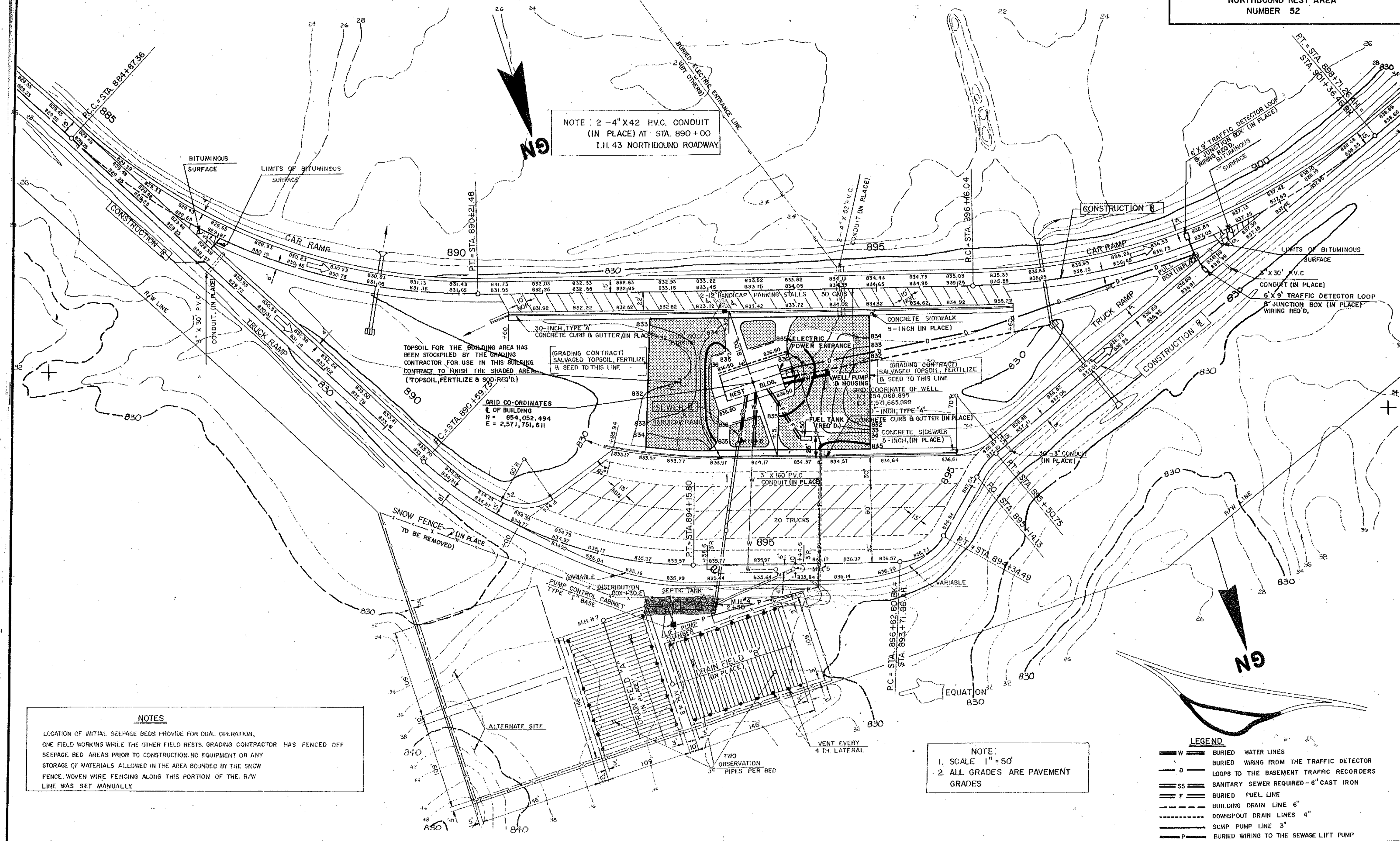
LEGEND

- W — BURIED WATER LINES
- D — BURIED WIRING FROM THE TRAFFIC DETECTOR LOOPS TO THE BASEMENT TRAFFIC RECORDERS.
- SS — SANITARY SEWER REQ'D 6" CAST IRON
- F — BURIED FUEL LINE
- BUILDING DRAIN LINE 6"
- DOWNSPOUT DRAIN LINES 4"
- SUMP PUMP LINE 3"

Catalog No 2130-D142

STATE PROJECT NUMBER	SHEET NO.
1226 – I – 61	5.3

NORTHBOUND REST AREA NUMBER 52



NOTE: 2 – 4" X 42 P.V.C. CONDUIT (IN PLACE) AT STA. 890 + 00 I.H. 43 NORTHBOUND ROADWAY
GN
BURIED ELECTRIC ENTRANCE LINE
CAR RAMP
TRUCK RAMP
CONSTRUCTION ℄
P.C. = STA. 884+87.36
P.T. = STA. 890+21.48
P.C. = STA. 896+16.04
LIMITS OF BITUMINOUS SURFACE
BITUMINOUS SURFACE
HANDICAP PARKING STALLS
50 CARS
20 TRUCKS
CONCRETE SIDEWALK 5–INCH (IN PLACE)
30–INCH, TYPE "A" CONCRETE CURB & GUTTER (IN PLACE)
TOPSOIL FOR THE BUILDING AREA HAS BEEN STOCKPILED BY THE GRADING CONTRACTOR FOR USE IN THIS BUILDING CONTRACT TO FINISH THE SHADED AREA. ('TOPSOIL, FERTILIZE & SOD REQ'D.)
(GRADING CONTRACT) SALVAGED TOPSOIL, FERTILIZE & SEED TO THIS LINE
GRID CO-ORDINATES ℄ OF BUILDING N = 654,052.494 E = 2,571,751.611
REST BLDG.
ELECTRIC POWER ENTRANCE
WELL PUMP & HOUSING
GRID COORDINATE OF WELL N = 654,068.895 E = 2,571,665.999
FUEL TANK (REQ'D.)
SEWER ℄
3" X 160' P.V.C. CONDUIT (IN PLACE)
SNOW FENCE (IN PLACE TO BE REMOVED)
R/W LINE
SEPTIC TANK
PUMP CONTROL CABINET TYPE "I" BASE
DISTRIBUTION BOX
LIFT PUMP CHAMBER
DRAIN FIELD "A" (IN PLACE)
DRAIN FIELD "B" (IN PLACE)
ALTERNATE SITE
TWO OBSERVATION PIPES PER BED
VENT EVERY 4 TH. LATERAL
EQUATION
VARIABLE
6' X 9' TRAFFIC DETECTOR LOOP & JUNCTION BOX (IN PLACE) WIRING REQ'D.
3" X 30' P.V.C CONDUIT (IN PLACE)
PULL BOX (IN PLACE)

NOTES

LOCATION OF INITIAL SEEPAGE BEDS PROVIDE FOR DUAL OPERATION, ONE FIELD WORKING WHILE THE OTHER FIELD RESTS. GRADING CONTRACTOR HAS FENCED OFF SEEPAGE BED AREAS PRIOR TO CONSTRUCTION. NO EQUIPMENT OR ANY STORAGE OF MATERIALS ALLOWED IN THE AREA BOUNDED BY THE SNOW FENCE. WOVEN WIRE FENCING ALONG THIS PORTION OF THE R/W LINE WAS SET MANUALLY.

NOTE:
1. SCALE 1" = 50'
2. ALL GRADES ARE PAVEMENT GRADES

LEGEND

— W —	BURIED WATER LINES
— D —	BURIED WIRING FROM THE TRAFFIC DETECTOR LOOPS TO THE BASEMENT TRAFFIC RECORDERS
— SS —	SANITARY SEWER REQUIRED – 6" CAST IRON
— F —	BURIED FUEL LINE
— — —	BUILDING DRAIN LINE 6"
-------	DOWNSPOUT DRAIN LINES 4"
———	SUMP PUMP LINE 3"
— P —	BURIED WIRING TO THE SEWAGE LIFT PUMP

Catalog No. 2130-D142

STATE PROJECT NUMBER
1226-I-61
SHEET NO.
5.4
SOUTHBOUND REST AREA NUMBER 51
CROSS HATCH AREA INDICATES FUTURE EXPANSION OF BUILDING FACILITIES
P.C. = STA 887+47.92
P.T. = STA. 886+37.14
P.C. = STA. 884+86.59
EQUATION STA.887+98.90 BK. STA.886+24.11 AH.
SEWER ℞
20 TRUCKS
HANDICAP RAMP
CONCRETE CURB & GUTTER 30-INCH, TYPE "A" REQ'D.
CONCRETE SIDEWALK 5-INCH, REQ'D
SEPTIC TANK
TRANSFORMER PAD
WELL
REST BLDG
GRID CO-ORDINATES ℄ OF BUILDING N = 852,412.304 E = 2,571,852.946
GRADING CONTRACT SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH TO THIS LINE
TOPSOIL FOR THE BUILDING AREA HAS BEEN STOCKPILED BY THE GRADING CONTRACTOR FOR USE BY THE BUILDING CONTRACTOR.
ELEC. POWER ENTERS BLDG.
SANITARY SEWER
GRID COORDINATE OF WELL N = 852,374.177 E = 2,571,913.695
1-12' NO PARKING
HANDICAP RAMP
CONCRETE SIDEWALK 5-INCH, REQ'D
HANDICAP PARKING STALLS
50 CARS
30" CONCRETE CURB & GUTTER, TYPE "A" REQ'D.
CAR RAMP CONSTRUCTION ℞
TRUCK RAMP CONSTRUCTION ℞
P.T. = STA.892+05.20
P.C. = STA.892+16.16
3"x30' P.V.C. CONDUIT REQ'D.
2-4"x30' P.V.C. CONDUIT REQ'D.
6'x9' TRAFFIC DETECTOR LOOP & JUNCTION BOX, REQ'D.
PULL BOX REQ'D
BITUMINOUS SURFACE
LIMITS OF BITUMINOUS SURFACE
2-4"x56' P.V.C. CONDUIT REQ'D.
M.H. NO.3
SNOW FENCE IN PLACE (TO BE REMOVED)
DRAINAGE BEDS
DITCH PERIMETER OF
DRAIN FIELD
VENT EVERY 4TH LATERAL
DISTRIBUTION BOX
DITCH PERIMETER OF DRAINAGE BEDS
OBSERVATION PIPES
ALTERNATE LOCATION
P.T. = STA. 885+09.52
P.C. = STA. 881+04.25
2-4"x42' P.V.C. CONDUIT REQ'D.
SOUTHBOUND ROADWAY
SOUTHBOUND ROADWAY ℞
P.C. = STA.885+30.88
NOTE:
1 SCALE 1" = 50'
2 ALL GRADES ARE PAVEMENT GRADES.
LEGEND
1 *PICNIC TABLE PAD - 1 TABLE (10'x12')
2 *PICNIC TABLE PAD - 2 TABLE (10'x20')
HCP *PICNIC TABLE PAD - 1 TABLE FOR HANDICAPPED (10'x20')
*BY OTHERS
NOTE
LOCATION OF INITIAL SEEPAGE BEDS PROVIDE FOR DUAL OPERATION, ONE FIELD WORKING WHILE THE OTHER FIELD RESTS. GRADING CONTRACTOR HAS FENCED OFF SEEPAGE BED AREAS PRIOR TO CONSTRUCTION. NO EQUIPMENT OR ANY STORAGE OF MATERIALS ALLOWED IN THE AREA BOUNDED BY THE SNOW FENCE.
Catalog No 2130-D142

STATE PROJECT NUMBER	SHEET NO.
1226-1-61	5.5

NORTHBOUND REST AREA
NUMBER 52

NOTE : 2 - 4" X 42 P.V.C. CONDUIT REQUIRED AT STA. 890+00 I.H. 43 NORTHBOUND ROADWAY.

GN

CROSS HATCHED AREA INDICATES FUTURE EXPANSION OF BUILDING FACILITIES

P.C.C. = STA. 884+87.36

BITUMINOUS SURFACE

LIMITS OF BITUMINOUS SURFACE

CONSTRUCTION R

CAR RAMP

TRUCK RAMP

R/W LINE

3" X 30" P.V.C. CONDUIT REQ'D.

PT = STA. 890+21.48

PC = STA. 890+59.73

GRID CO-ORDINATES
℄ OF BUILDING
N = 854,052.494
E = 2,571,751.611

TOPSOIL FOR THE BUILDING AREA HAS BEEN STOCK-PILED BY THE GRADING CONTRACTOR FOR USE IN THE BUILDING CONTRACT TO FINISH THIS AREA.

30-INCH, TYPE "A" CONCRETE CURB & GUTTER, REQ'D.

(GRADING CONTRACT) SALVAGED TOPSOIL, FERTILIZE & SEED TO THIS LINE

12 HANDICAP PARKING STALLS 60 CARS

HCP PARKING

SEWER R

HANDICAP RAMP HCP

ELECTRIC POWER ENTRANCE

CONCRETE SIDEWALK 5-INCH, REQ'D

WELL

GRID COORDINATE OF WELL
N = 854,068.695
E = 2,571,666.999

30-INCH, TYPE "A" CONCRETE CURB & GUTTER REQ'D.

FUEL TANK

CONCRETE SIDEWALK 5-INCH, REQ'D.

3" X 160' P.V.C. CONDUIT REQ'D

20 TRUCKS

PT = STA. 894+15.80

SNOW FENCE (TO BE REMOVED) IN PLACE

VARIABLE

PUMP CONTROL CABINET TYPE "I" BASE

DISTRIBUTION BOX + 30.2

SEPTIC TANK

LIFT PUMP CHAMBER

DRAIN FIELD "A"

DRAIN FIELD "B"

ALTERNATE SITE

TWO OBSERVATION PIPES PER BED

VENT EVERY 4 TH. LATERAL

PC = STA. 896+62.60 BK
STA. 893+71.66 AH

PT = STA. 894+34.49

EQUATION 830

PC = STA. 896+16.04

PT = STA. 898+71.36 BK
STA. 901+36.48 AH

6' X 9' TRAFFIC DETECTOR LOOP & JUNCTION BOX REQ'D.

BITUMINOUS SURFACE

PULL BOX REQ'D.

5" X 30' P.V.C. CONDUIT REQ'D.

6' X 9' TRAFFIC DETECTOR LOOP & JUNCTION BOX REQ'D.

LIMITS OF BITUMINOUS SURFACE

3" CONDUIT

PT = STA. 895+50.75

PC = STA. 895+14.13

R/W LINE

GN

NOTES

LOCATION OF INITIAL SEEPAGE BEDS PROVIDE FOR DUAL OPERATION, ONE FIELD WORKING WHILE THE OTHER FIELD RESTS. GRADING CONTRACTOR HAS FENCED OFF SEEPAGE BED AREAS PRIOR TO CONSTRUCTION. NO EQUIPMENT OR ANY STORAGE OF MATERIALS ALLOWED IN THE AREA BOUNDED BY THE SNOW FENCE. WOVEN WIRE FENCING ALONG THIS PORTION OF THE R/W LINE WAS SET MANUALLY.

NOTE
1. SCALE 1" = 50'
2. ALL GRADES ARE PAVEMENT GRADES

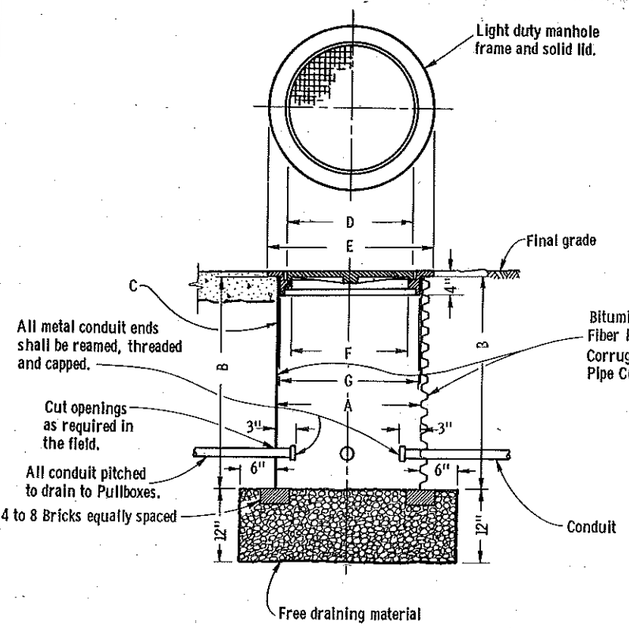
LEGEND

1 *PICNIC TABLE PAD (10' X 12') - 1 TABLE

2 *PICNIC TABLE PAD (10' X 20') - 2 TABLES

HCP *PICNIC TABLE PAD (10' X 20') - 1 TABLE FOR HANDICAPPED

*BY OTHERS

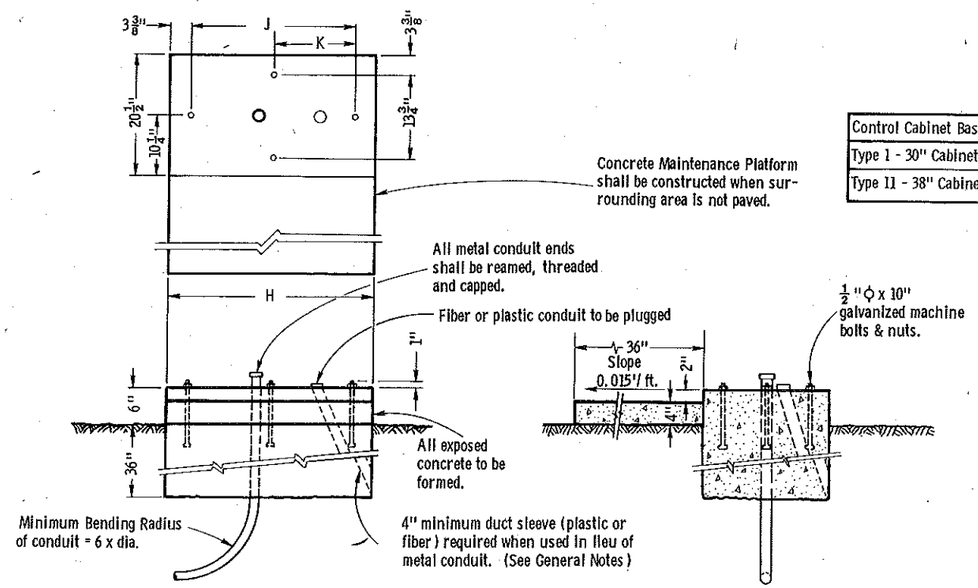


SHOWING INSTALLATION IN PAVED LOCATION

SHOWING INSTALLATION IN UNPAVED LOCATION

PIPE TYPE		BITUMINOUS FIBER				CORR. METAL
Pipe Dia. (Inside)	A	12"	18"	24"	24"	24"
Pipe Length	B	24"	24"	24"	36"	36"
Wall Thickness	C	0.4"	0.4"	0.4"	0.4"	.064"
Manhole Lid	D	10¼"	16¼"	22¼"	22¼"	22¼"
Manhole Frame	E	14½"	20½"	26½"	26½"	26½"
Manhole Frame	F	8½"	14½"	20½"	20½"	20½"
Manhole Frame	G	11½"	17½"	23½"	23½"	23½"
Lid & Frame	--	55#	100#	160#	160#	160#

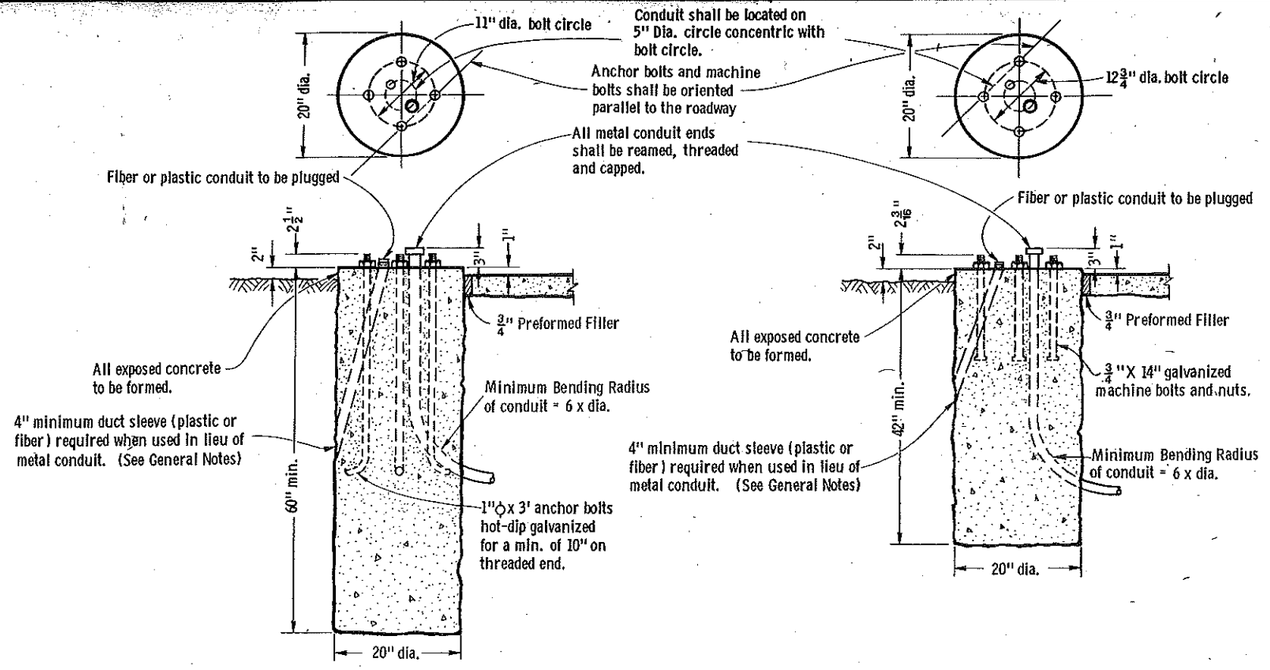
PULL BOX AND DETECTOR BOX DETAIL



Control Cabinet Base	H	J	K
Type 1 - 30" Cabinet	34"	27¼"	13⅝"
Type 11 - 38" Cabinet	42"	35¼"	17⅝"

TRAFFIC SIGNAL AND TRAFFIC COUNTER CONTROL CABINET BASE

TYPE 1 and 2



SHOWING INSTALLATION IN UNPAVED LOCATION

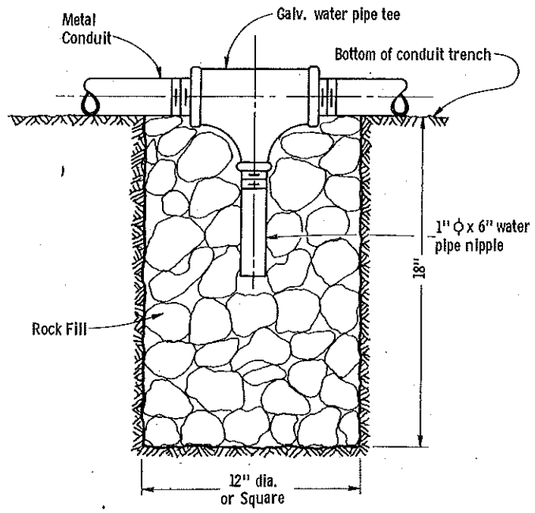
SHOWING INSTALLATION IN PAVED LOCATION

SHOWING INSTALLATION IN UNPAVED LOCATION

SHOWING INSTALLATION IN PAVED LOCATION

TRAFFIC SIGNAL BASE

TYPE 2



Note: Install as required at points in conduit for drainage.

DRAIN SUMP FOR METAL CONDUIT

TRAFFIC SIGNAL BASE

TYPE 1

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Conduit may be metal, fiber or plastic. Locate as required. 12-inch min. bending radius applies to metal conduit only.

Concrete masonry shall be grade "AA".

Conduit installed as a continuous system between Pullboxes shall have a min. depth of 12 inches and shall always be below the pavement.

Detailed drawings for proposed alternate designs for "Traffic Signal and Traffic Counter Details" shall be submitted to the Engineer for approval.

TRAFFIC SIGNAL AND TRAFFIC COUNTER DETAILS

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
4-13-72 DATE — L. C. Kessler CHIEF DESIGN ENGINEER

APPROVED
4-13-72 DATE — S. C. Hicks STATE HIGHWAY ENGINEER

S.D.D. 9B3-2

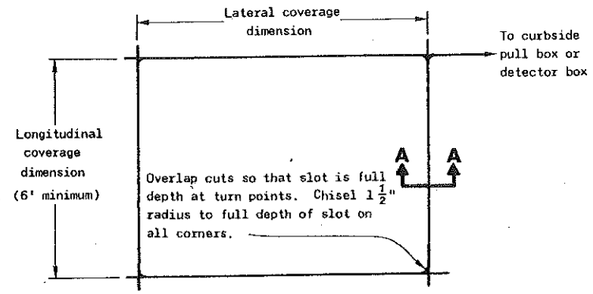
S.D.D. 9B3-2

1

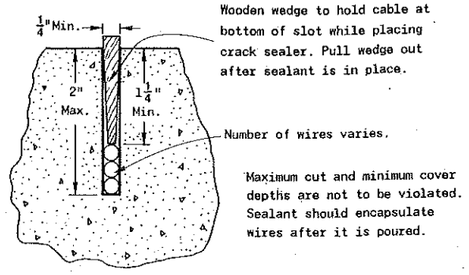
LOOP PERIMETER **	NO. OF TURNS ***
Up to 40 feet	3
40 to 160	2
160 and up	1

** Maintain 6 foot minimum dimension in direction of travel.

*** Or according to plans or special provisions.

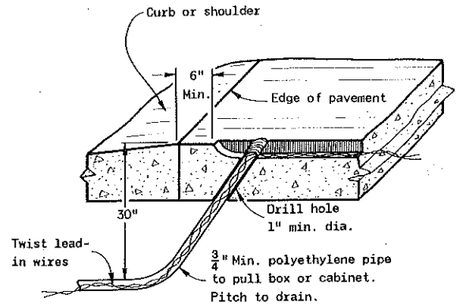


LOOP SLOT CONSTRUCTION



SECTION A-A

LOOP AND LEAD-IN WIRES IN PAVEMENT



LOOP LEAD-IN WIRES

NOTES

The slots in the pavement shall be cut to dimension with a saw and cleaned free of dirt, dust and debris prior to installation of the wire.

Loop wire shall be No. 12 AWG, Type USE, RHW, RHH or XLP stranded copper.

To prevent damage to wire insulation during installation, use a dull object (preferably wood) to push the wire down into the slot.

After placing the wire in the slot, fill the slot with an asphaltic material. Refer to Section 409.2.5 of the State of Wisconsin Standard Specifications for Road and Bridge Construction, Edition of 1975. An epoxy type sealant may be used if approved by the Engineer, only when asphaltic material is unavailable.

Each loop circuit shall be continuous, without splices, and free from grounds. The resistance to ground and between adjacent loops shall be infinity as determined with a megger.

If a pull box or detector box is not provided outside of the curb or edge of pavement at a point where wires from the loop extend through the pavement, the wires should then be brought through the bottom of the pavement and just under the lower edge of the curb back side. A small hole should be dug under the curb at this point so that a splice kit (epoxy type) may be used to waterproof the splice that connects wires from the loop to the lead wires which eventually terminate in the control cabinet. Splice kits must also be used when the splice is made in a pull box.

Two conductor, No. 14 AWG, shielded cable shall be used from the splice connection at the curb to the control cabinet except as noted in the next paragraph.

2/C - No. 14 (19x27), 0.032 polyethylene, black and clear color codes, cabled with 1x No. 16 AWG stranded tinned copper drain wire, aluminum polyester shield, 0.035 chrome vinyl jacket as manufactured by Belden (No. 8720), or 2/C - No. 14-7x bare copper, 0.047 XLP printed color code, cabled with 1x No. 16-7x tinned copper drain wire, aluminum mylar tape, 0.047 PVC jacket as manufactued by Okonite, shall be used. These cables are polyethylene insulated.

Belden 8720 is not direct burial cable. It must be placed in non-metalic duct or metal conduit. Okonite cable is direct burial and it is not necessary to place this direct burial cable in non-metalic duct or metal conduit.

The two single conductor loop wires must be twisted together at a rate of three twists per foot from the pavement edge to the splice or to its connection with loop lead-in cable. If the distance from the pavement edge to the control cabinet is less than 75 feet, the loop lead wires may be left long enough to reach the control cabinet. However, the single conductor wires must then be twisted at least three turns per foot all the way to the control cabinet. In this instance a splice is not used.

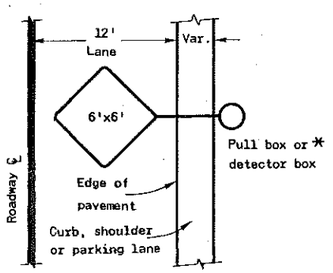
It is recommended that these twisted single conductor pairs shall be installed in non-metalic duct or metal conduit. Lead-in wires along curbs shall be buried 30 inches deep or tucked under the curb for protection from stakes, posts or any other objects that can be driven into the ground.

Lead-in wires at the point where a splice is made shall be cut to the shortest possible length. This will eliminate additional loops caused by folding of the excess wire, which can cause improper operation of detector amplifiers.

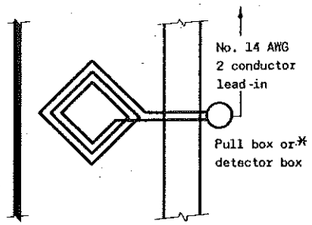
A splice for a two conductor cable consists of two soldered joints enclosed in a single splice kit. Each wire shall be soldered and insulated from one another.

* See Standard Detail Drawing entitled "Traffic Signal and Traffic Counter Details" for pull box or detector box details.

Center loop in lane.

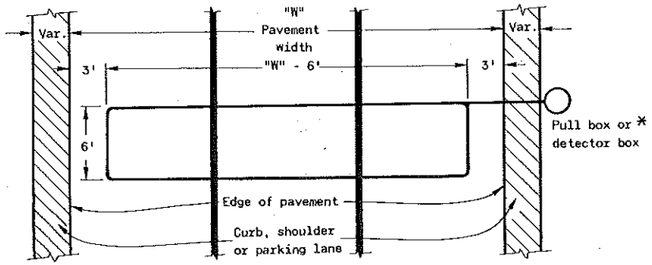


LOOP SLOT PLAN

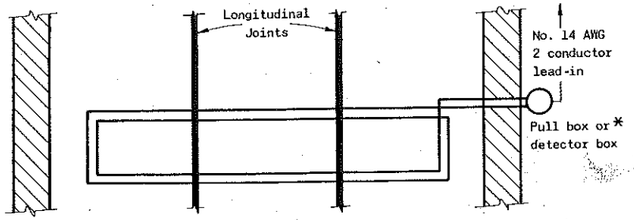


LOOP WIRE LAY CONSTRUCTION DETAILS

TRAFFIC SIGNAL SINGLE LANE DETECTION LOOP



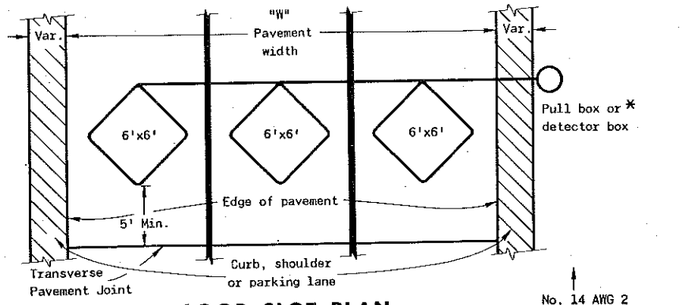
LOOP SLOT PLAN



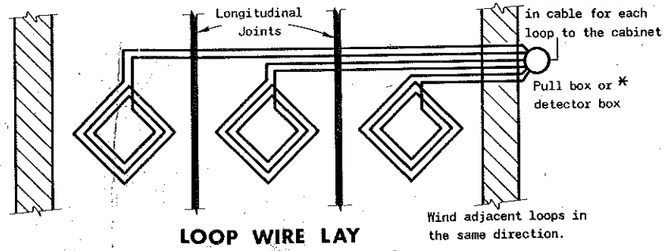
LOOP WIRE LAY CONSTRUCTION DETAILS

TRAFFIC SIGNAL MULTIPLE LANE MASS DETECTION LOOP

Place loops in center of lanes.



LOOP SLOT PLAN



LOOP WIRE LAY CONSTRUCTION DETAILS

TRAFFIC COUNTER STATION MULTIPLE LANE DETECTION LOOP

DETAILS FOR THE INSTALLATION OF TRAFFIC SIGNAL AND TRAFFIC COUNTER DETECTOR LOOP WIRES IN PAVEMENT IN PLACE

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
3-3-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
3-4-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 9B4-3