

GENERAL NOTES:

- DIMENSIONS, COLORS AND DETAILS OF VARIOUS SIZE SIGNS, AND ACCESSORY PANELS TO FOLLOW STANDARDS IN THE CURRENT "STANDARD HIGHWAY SIGN PUBLICATION" AND THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- (S) REPRESENTS A SPECIAL SIZE SIGN.
- LETTERS AND NUMERALS SHALL CONFORM TO THE CURRENT MANUAL, "STANDARD ALPHABETS FOR HIGHWAY SIGNS" U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR THE DISTANCE TO BE USED ON THE ADVANCE WARNING SIGNS, AND FOR THE SPEED LIMIT TO BE USED ON THE R2-1 SIGN.
- DISTANCE LEGEND: SIGN NUMBER FOLLOWED BY LETTER & DISTANCE

LETTER	DISTANCE
A	1500'
B	1000'
C	500'
D	_____ MILE
E	_____ MILES AHEAD
F	_____ MILES AHEAD

BACKING MATERIAL

- ALUMINUM SHALL BE FLAT SHEET OF ALLOY AND TEMPER 5052-H38 OR 6061-T6 :
 - 0.10" THICK FOR ALL CONSTRUCTION SIGNS EXCEPT SIGNS SHOWN MOUNTED ON BREAKAWAY BARRICADES.
 - 0.024" THICK FOR ALL CONSTRUCTION SIGNS SHOWN MOUNTED ON BREAKAWAY BARRICADES.

TEMPORARY SIGN SUPPORTS

- SIGN SUPPORTS SHALL BE OF WELL SEASONED LUMBER, S4S, FREE OF SPLITS, KNOTS AND WARPS, OR OF STEEL COMPONENTS.
- WOOD POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL NOT EXCEED THE FOLLOWING DIMENSIONS FOR:
 - SINGLE POST = 4" x 6"
 - TWO POSTS = 3" x 6" OR 4" x 5"
 - THREE POSTS = 3" x 5" OR 4" x 4"

4" X 6" WOOD POSTS SHALL BE MODIFIED BY DRILLING 1/2 INCH DIAMETER HOLES 4 INCHES AND 18 INCHES ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.

- NO BRACING IS PERMITTED. VERTICAL CLEARANCES FOR SIGNS MOUNTED ON WOOD SUPPORTS SHALL BE 7 FOOT MINIMUM. EMBEDMENT DEPTH FOR THE WOOD POST SHALL NOT EXCEED 3.5 FEET.
- STEEL POSTS SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL FOR U-POST SIGN SUPPORT.
- TEMPORARY SIGN SUPPORTS NOT MEETING THIS CRITERIA SHALL BE SHIELDED BY A LONGITUDINAL BARRIER OR CRASH CUSHIONS.

SIGN FACES

- SIGN FACES SHALL BE ASTM D 4956 TYPE VII OR VIII FLUORESCENT ORANGE SHEETING.

FASTENING

- ALL SIGNS SHALL BE SECURELY FASTENED TO THEIR SUPPORTS WITH BOLTS, NUTS AND WASHERS IN ACCORDANCE WITH THE SPECIFICATIONS.

CONSTRUCTION SIGNS

N.T.S.

CD-159-6	DTL-1 DTL-12
NEW JERSEY DEPARTMENT OF TRANSPORTATION	
CONSTRUCTION DETAILS	
ROUTE U.S. 46 AT HOLLYWOOD AVENUE CONTRACT NO. 053950370	

CD-159-6.1



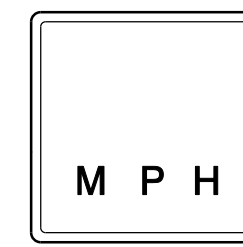
G20 - 1 [60" x 24"]
(10 S.F.)



M4 - 8a [24" x 18"]
(3 S.F.)
M4 - 11 (S) [48" x 36"]
(12 S.F.)



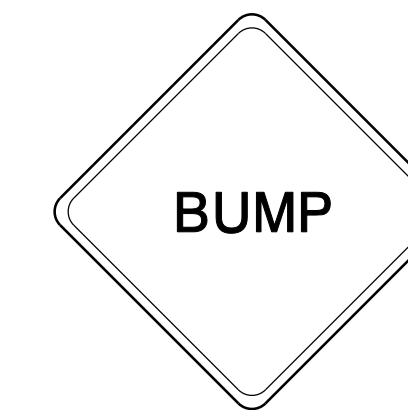
(L OR R)
W1 - 4a [48" x 48"]
(16 S.F.)



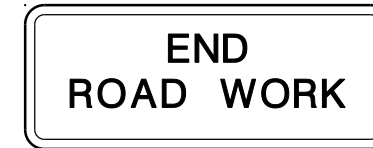
W13 - 1 [18" x 18"]
(2.3 S.F.)
W13 - 1 (S) [24" x 24"]
(4 S.F.)



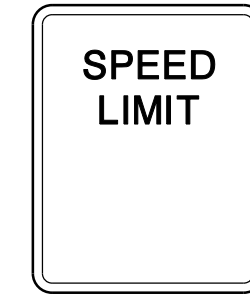
W20 - 7a [48" x 48"]
(16 S.F.)



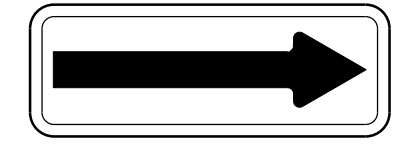
W8 - 1 (S) [48" x 48"]
(16 S.F.)



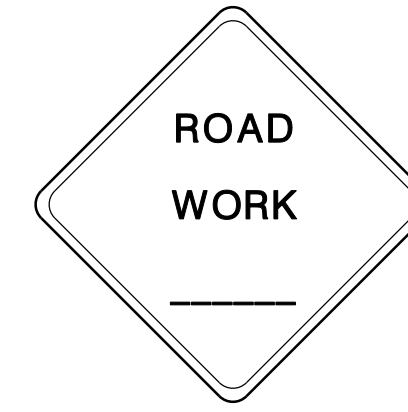
G20 - 2A [48" x 24"]
(8 S.F.)



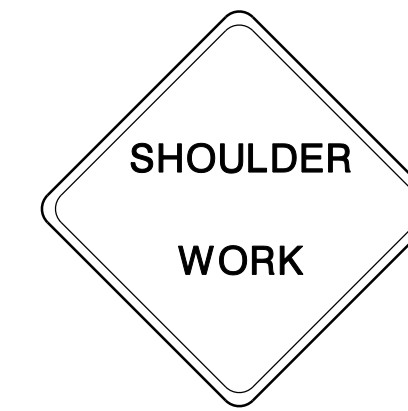
R2 - 1 [36" x 48"]
(12 S.F.)
R2 - 1 (S) [48" x 60"]
(20 S.F.)



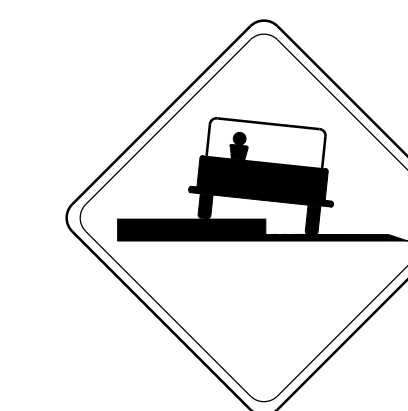
(L OR R)
W1 - 6 [48" x 24"]
(8 S.F.)
W1 - 6 (S) [60" x 30"]
(12.5 S.F.)



W20 - 1A [48" x 48"]
(16 S.F.)



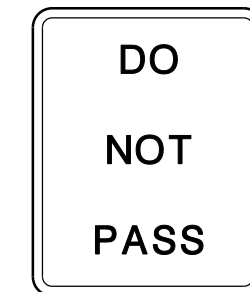
W21 - 5 (S) [48" x 48"]
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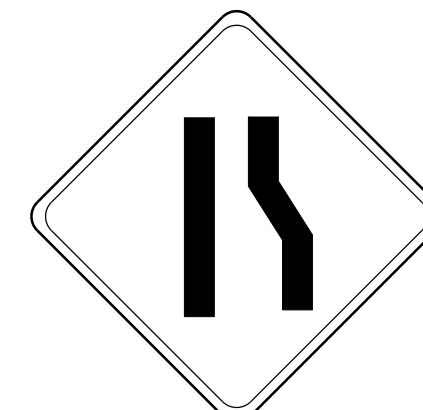
W8 - 9a [48" x 48"]
(16 S.F.)



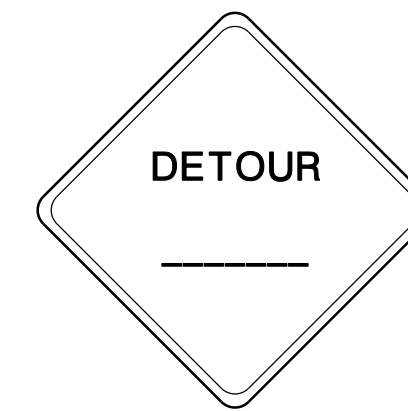
M4 - 9L (LEFT) [30" x 24"]
M4 - 9R (RIGHT) [30" x 24"]
(5 S.F.)
M4 - 9 (L or R) (S) [48" x 36"]
(12 S.F.)



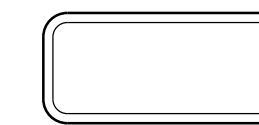
R4 - 1 [24" x 30"]
(5 S.F.)



(L OR R)
W4 - 2 (S) [48" x 48"]
(16 S.F.)



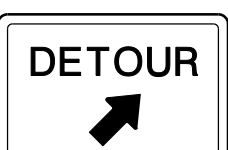
W20 - 2 [48" x 48"]
(16 S.F.)



M4 - 9N [30" x 12" MIN.]
(2.5 S.F.)
(SIZE WILL VARY WITH LENGTH OF STREET NAME)
STREET NAME SIGN TO BE USED IN CONJUNCTION WITH M4 - 9 SIGNS BLACK ON ORANGE



W8 - 14 [48" x 48"]
(16 S.F.)



M4 - 9LX (LEFT) [30" x 24"]
M4 - 9RX (RIGHT) [30" x 24"]
(5 S.F.)
M4 - 9 (L or R) XS [48" x 36"]
(12 S.F.)



R11 - 2 [48" x 30"]
(10 S.F.)



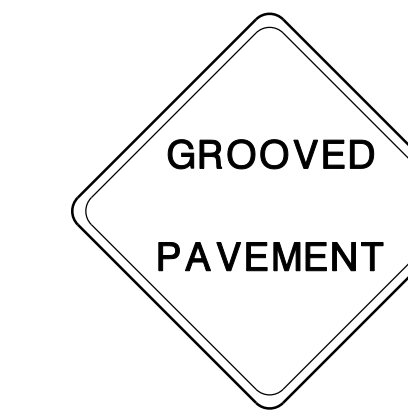
W5 - 1 (S) [48" x 48"]
(16 S.F.)



W20 - 3 [48" x 48"]
(16 S.F.)



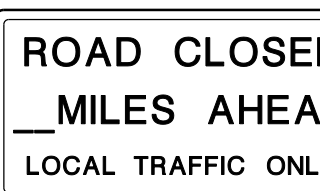
[24" x 24"]
(4 S.F.)
[30" x 30"] (S)
(6.3 S.F.)



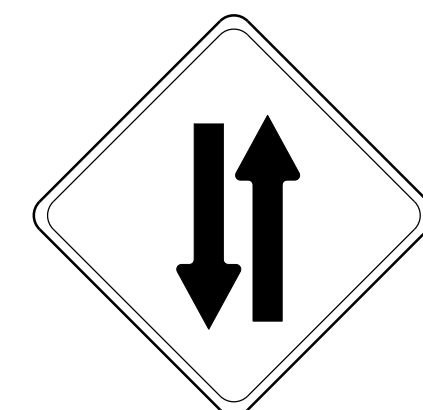
W8 - 14A [48" x 48"]
(16 S.F.)



M4 - 9X [30" x 24"]
(5 S.F.)
M4 - 9X (S) [48" x 36"]
(12 S.F.)



R11 - 3 [60" x 30"]
(12.5 S.F.)



W6 - 3 [48" x 48"]
(16 S.F.)



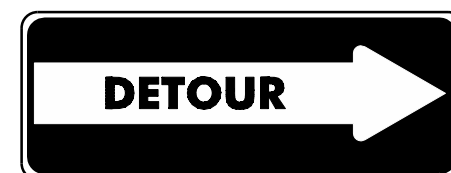
W20 - 4 [48" x 48"]
(16 S.F.)



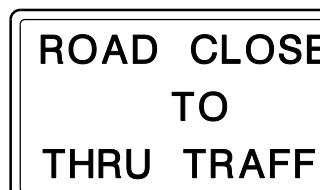
[24" x 24"]
(4 S.F.)
[30" x 30"] (S)
(6.3 S.F.)



W99 - 2 [48" x 48"]
(16 S.F.)



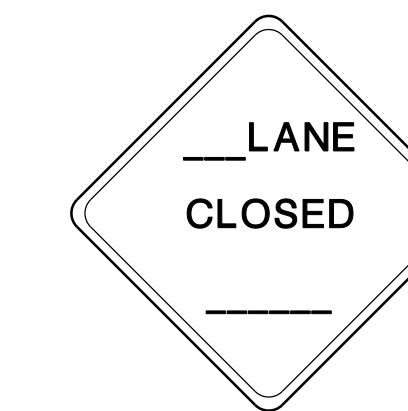
M4 - 10L (LEFT) [48" x 18"]
M4 - 10R (RIGHT) [48" x 18"]
(6 S.F.)



R11 - 4 [60" x 30"]
(12.5 S.F.)



W20 - 7b [48" x 48"]
(16 S.F.)

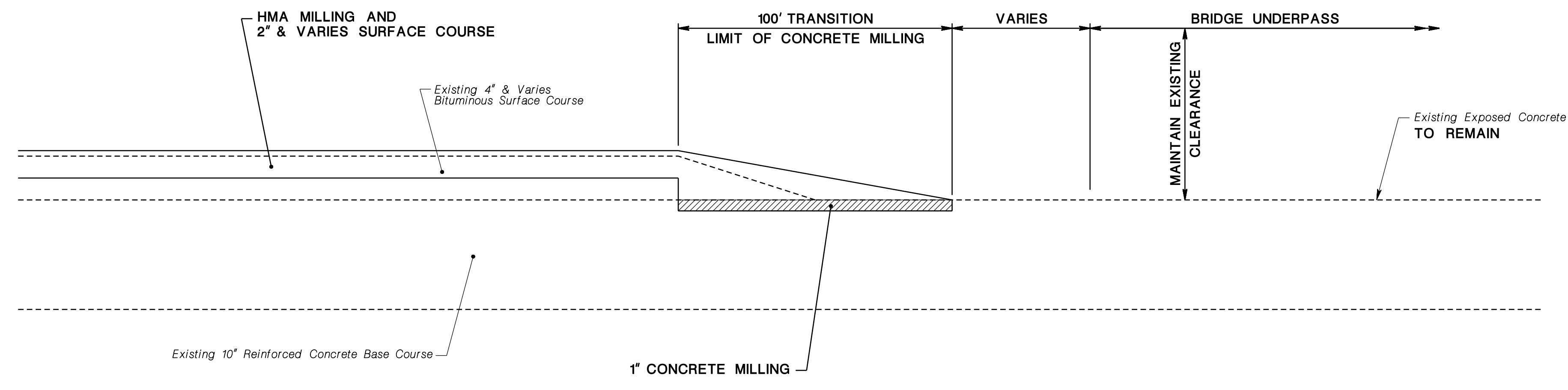


(L OR R) (CENTER)
W20 - 5 [48" x 48"]
(16 S.F.)

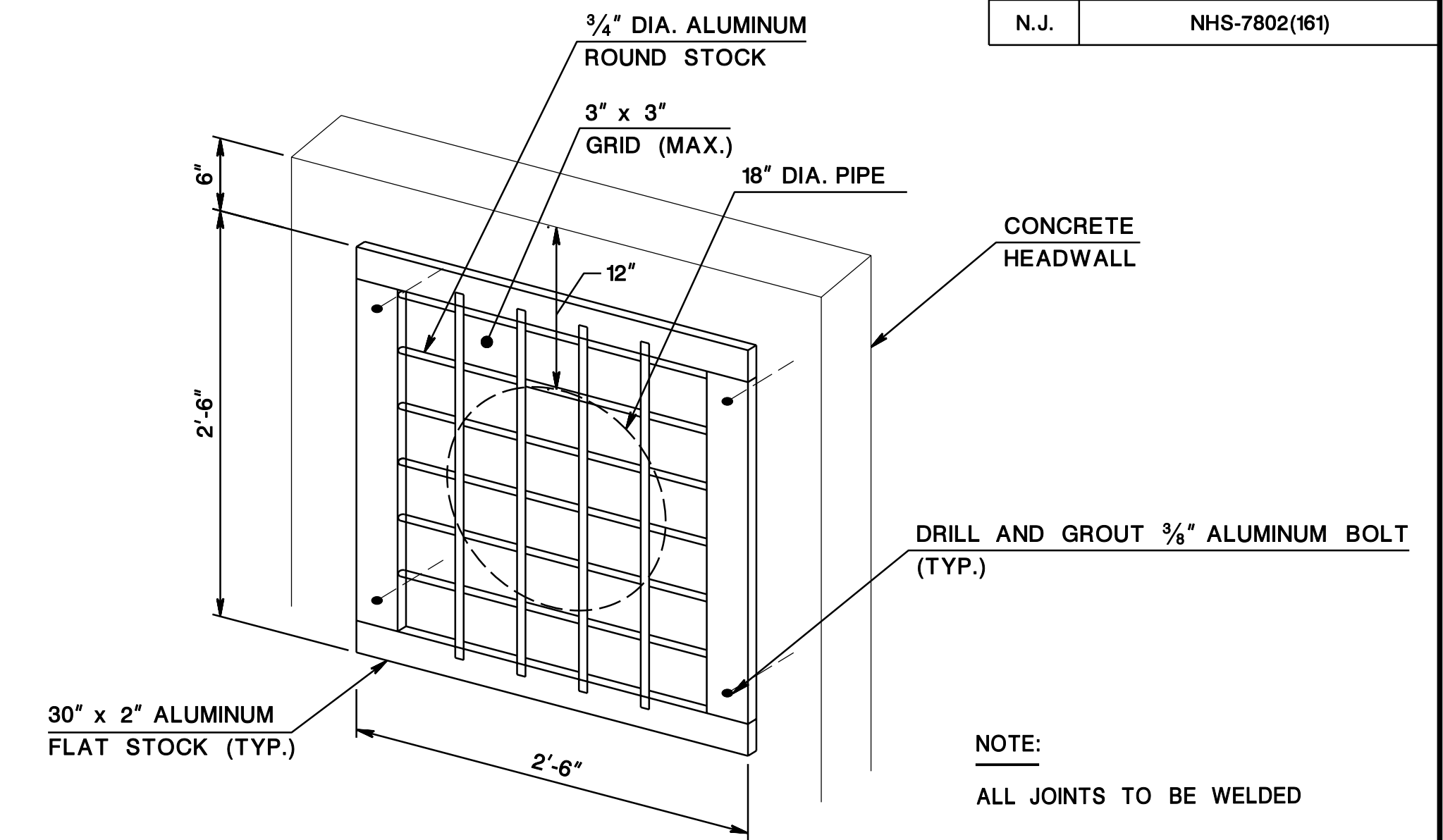
NOTE:

THE BORDER, THE WORDS "GIVE US A", "SLOW DOWN!", AND THE BRAKE PEDAL ARE BLACK; LEAVING THE WORD "BRAKE" ORANGE.

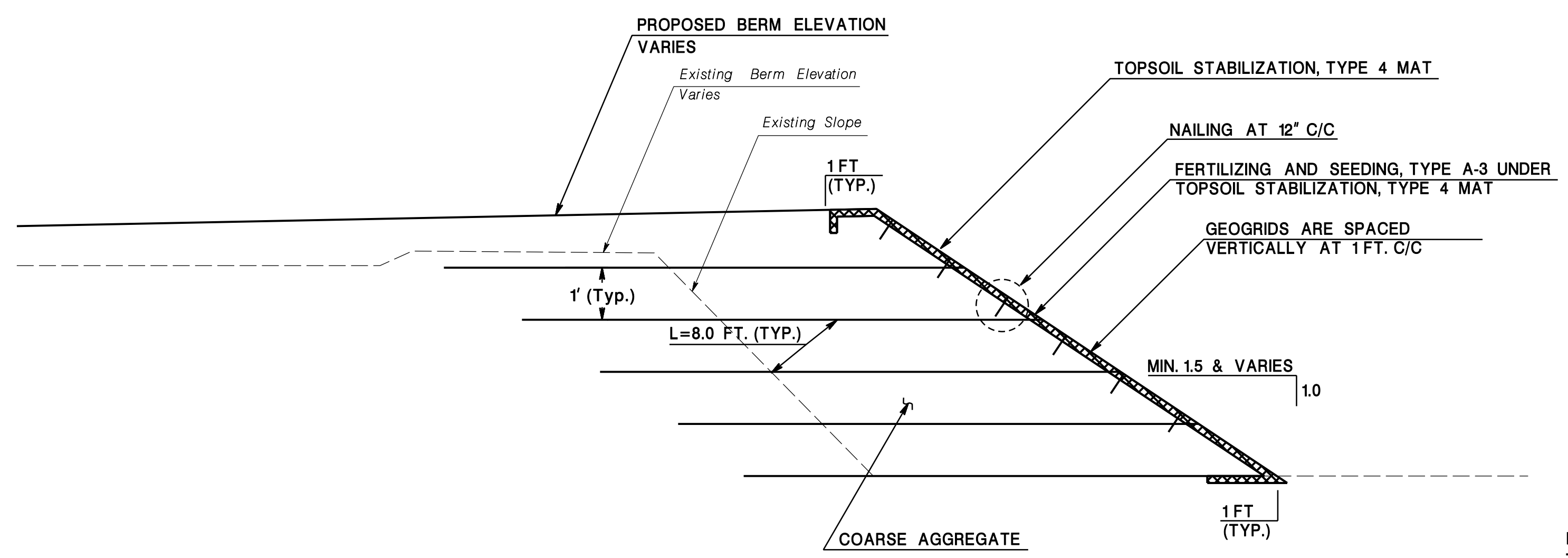
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Pen Table: \$PENTABLE\$
Design File: \$FILES\$
BDC08D-01-BACKING MATERIAL



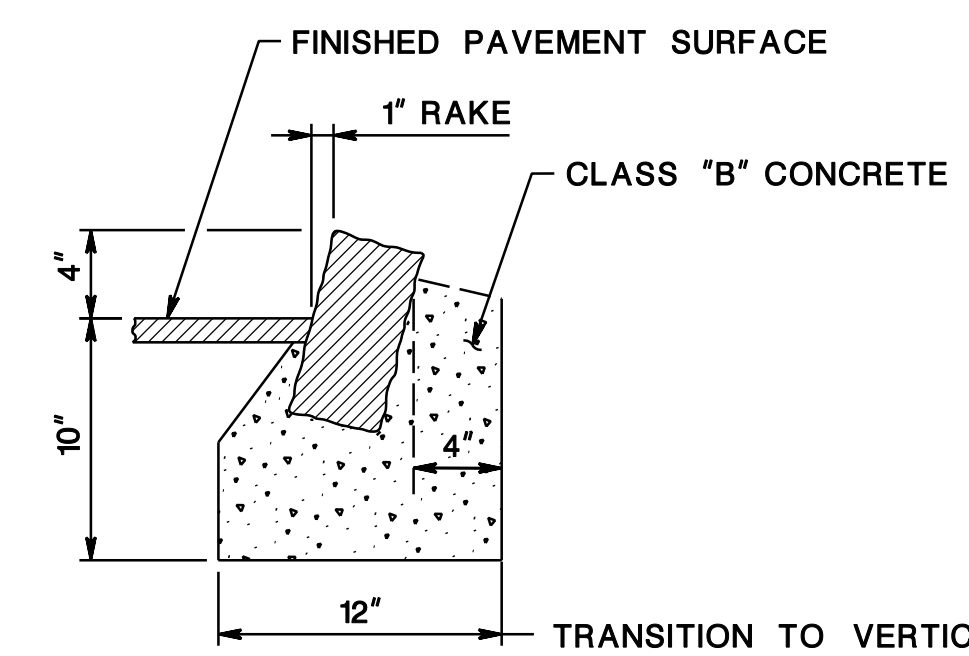
ROUTE U.S.46 PAVEMENT TRANSITION DETAIL



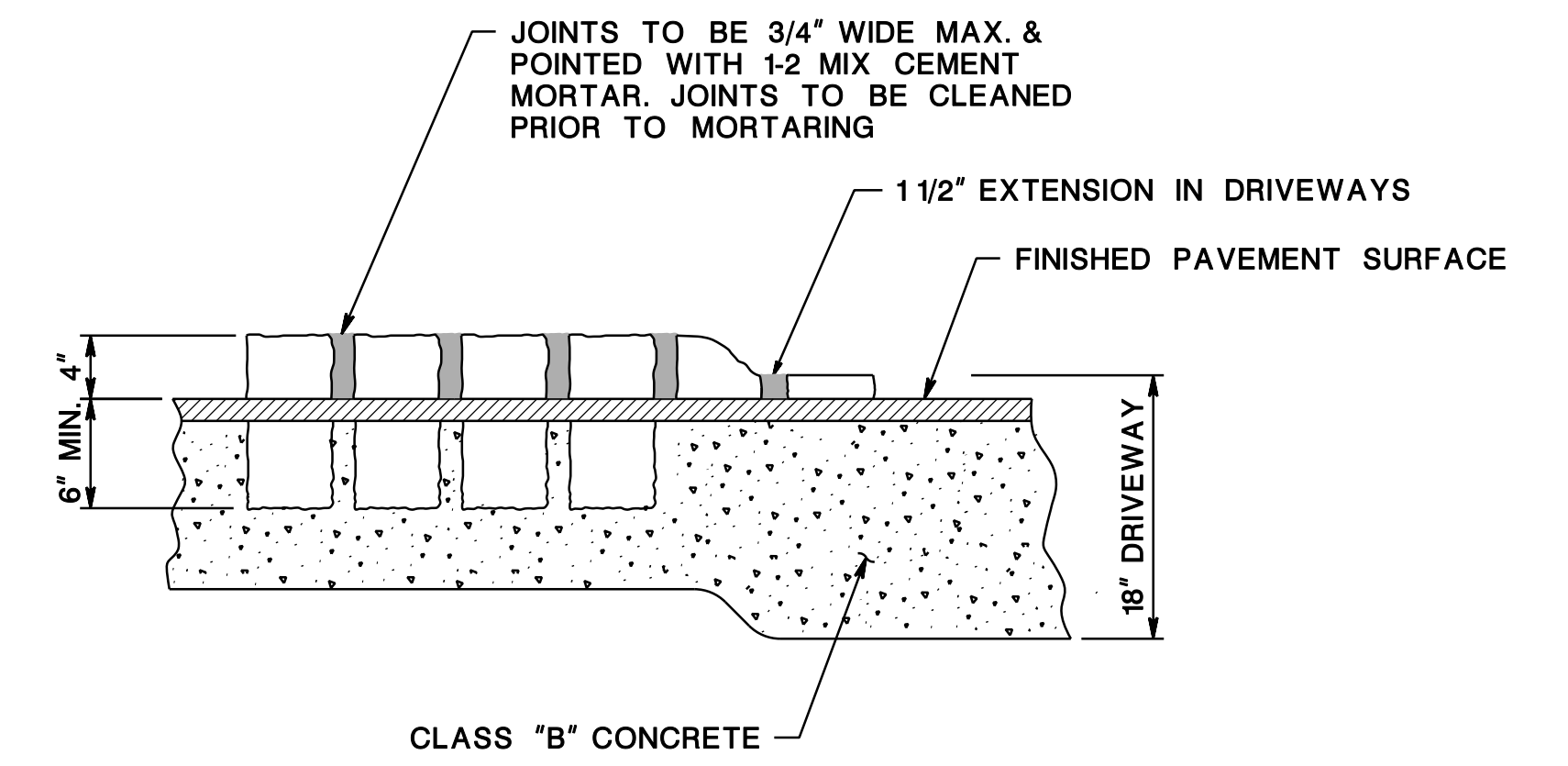
CONCRETE HEADWALL TRASH RACK DETAIL



EMBANKMENT WIDENING WITH GEOGRID REINFORCEMENT AND TOPSOIL STABILIZATION, TYPE 4 MAT



BELGIAN BLOCK CURB



- NOTES:**
1. TOPSOIL STABILIZATION, TYPE 4 MAT WILL BE PLACED ON THE SLOPE EAST OF C.R. 625 FROM C.R. 625 STA. 11+80 TO ACCESS A STA. 10+45.
 2. GEOGRID REINFORCEMENT WILL BE INSTALLED ON THE SLOPE EAST OF C.R. 625 FROM C.R. 625 STA. 12+85 TO 13+10
 3. REFER TO SECTION 203 AND SUBSECTION 910.01.01 OF THE JOB SPECIFIC SPECIFICATIONS.

N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

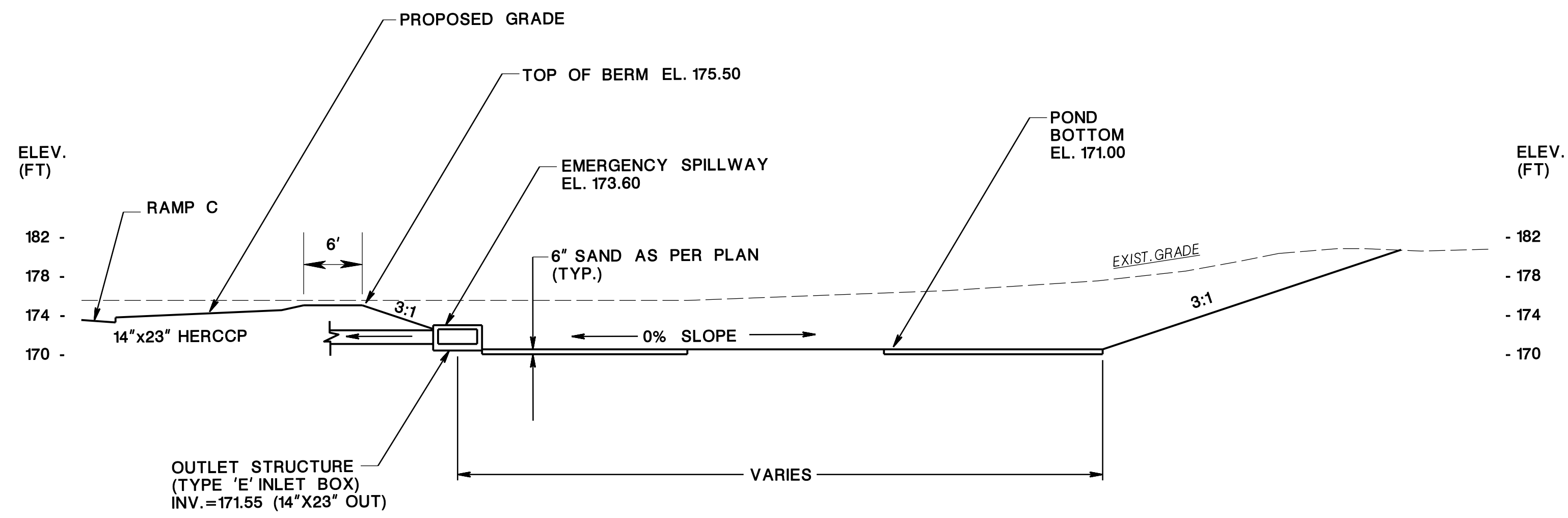
CONSTRUCTION DETAILS

ROUTE U.S. 46 AT HOLLYWOOD AVENUE CONTRACT NO. 053950370

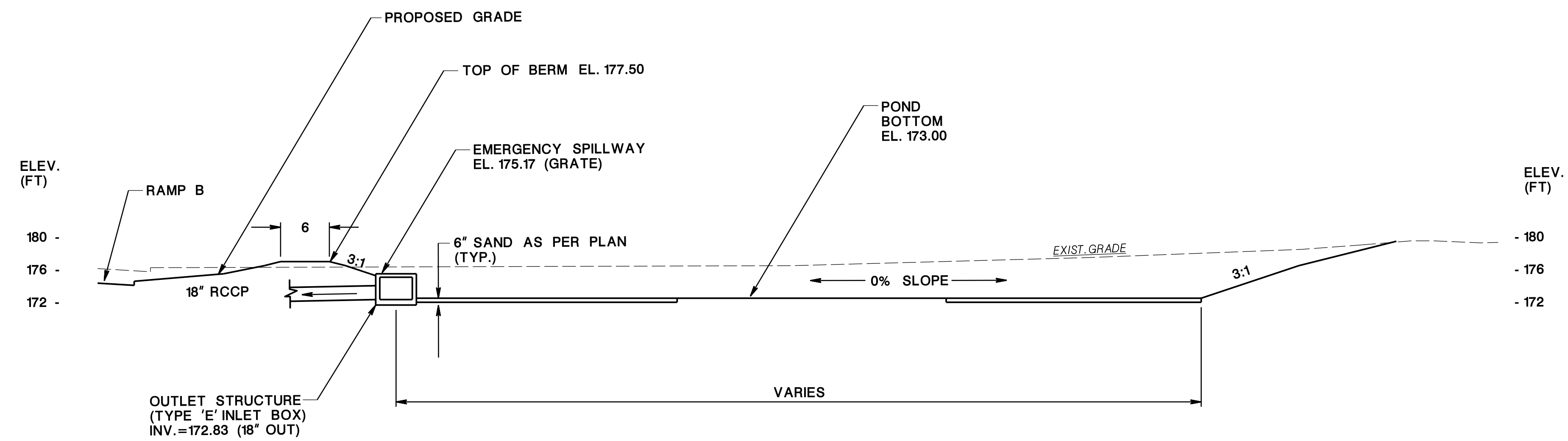
ARORA and ASSOCIATES, P.C.
 PROFESSIONAL ASSOCIATION
 MICHAEL G. WRIGHT, P.E.
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE02963100

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 Design File: \$FILES\$

DTL-2
 DTL-12



NORTH INFILTRATION POND



SOUTH INFILTRATION POND

N.T.S.

DTL-3
DTL-12

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

**ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370**

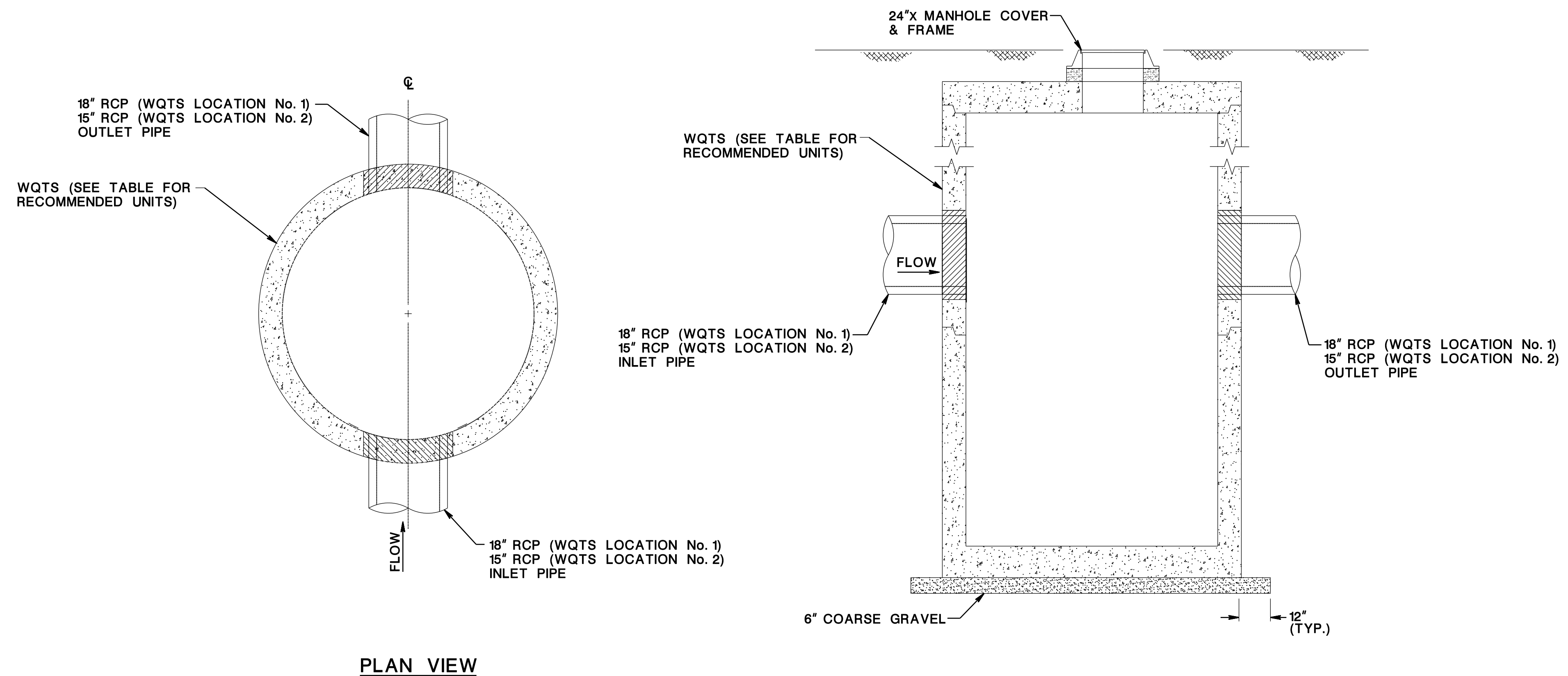
DRAINAGE DESIGN BY:
MALICK & SCHERER, P.C.
PROFESSIONAL ASSOCIATION

ARIF R. MALICK, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03945200

ARORA and ASSOCIATES, P.C.
PROFESSIONAL ASSOCIATION

MICHAEL G. WRIGHT, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE02963100

User Name: \$USERNAM\$
Plot Date: \$DATE\$ \$TIME\$
Pen Table: \$PENTABLE\$
Design File: \$FILE\$



- NOTES:**
1. WATER QUALITY TREATMENT SYSTEM (WQTS) SHALL CONFORM TO HS-25 LOADING CRITERIA.
 2. CONTRACTOR MAY USE ANY OF THE THREE UNITS LISTED OR AN EQUIVALENT, PROVIDED THAT A SHOP DRAWING IS APPROVED BY NJDOT.

WATER QUALITY TREATMENT SYSTEMS

MANUFACTURER	MODEL	WQTS #1 (SIZE)	WQTS #2 (SIZE)
CONTECH STORMWATER SOLUTIONS, INC.	HIGH EFFICIENCY CONTINUOUS DEFLECTIVE SEPARATOR UNIT	PMSU20_20	PSWC40_40
IMBRIUM SYSTEMS CORP.	STORMCEPTOR OSR	140	780
AQUASHIELD	AQUASWIRL	AS-4	AS-10

WATER QUALITY TREATMENT SYSTEM

N.T.S.

DTL-4
DTL-12

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

**ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370**

DRAINAGE DESIGN BY:
MALICK & SCHERER, P.C.
PROFESSIONAL ASSOCIATION

ARIF R. MALICK, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24E03945200

ARORA and ASSOCIATES, P.C.
PROFESSIONAL ASSOCIATION

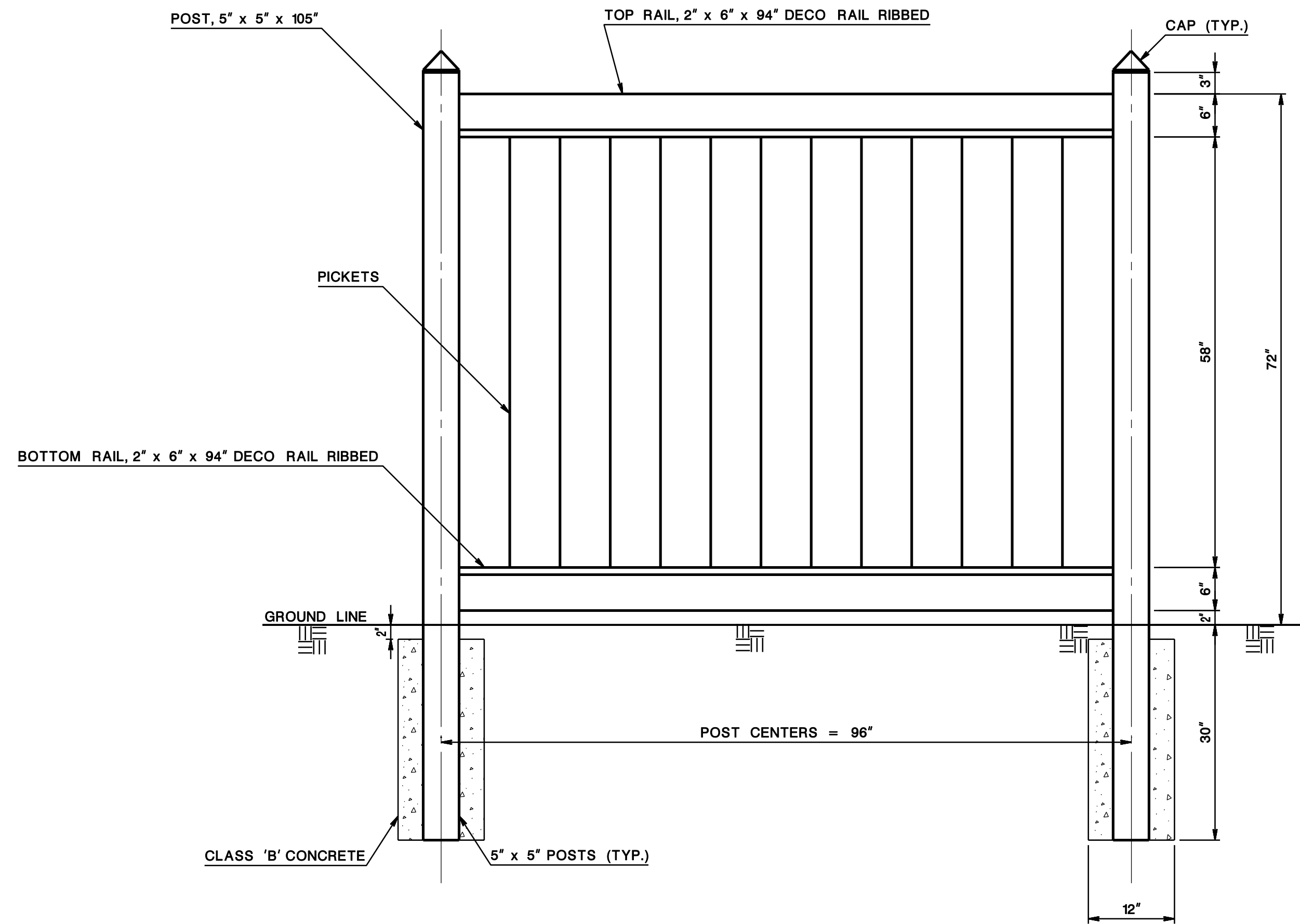
MICHAEL G. WRIGHT, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24E02963100

User Name: \$USERNAM\$
Plot Date: \$DATE\$ \$TIME\$
Pen Table: \$PENTABLE\$
Design File: \$FILE\$

STEEL U-POST SIGN SUPPORT DATA TABLE										
NO.	STATION	OFFSET	PANEL SIZE		NO. OF POSTS	POST HEIGHT			POST SIZE	POST TYPE
			X ₁	W		B ₁	P ₁	P ₂		
GA-1	RT. 46 @ STA. 108+65 R	2.0 FT.	8.0 FT.	5.0 FT.	3	12.0 FT.	12.0 FT.	12.0 FT.	4.0 #/FT.	STEEL
GA-2	RT. 46 @ STA. 115+85 R	2.0 FT.	6.0 FT.	6.5 FT.	3	13.0 FT.	13.0 FT.	13.0 FT.	4.0 #/FT.	STEEL
GA-3	CR 625 @ STA. 7+11 R	10.0 FT.	6.0 FT.	4.5 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL
GA-4	CR 625 @ STA. 6+91 R	10.0 FT.	5.0 FT.	4.0 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL
GA-5	CR 625 @ STA. 7+85 L	10.0 FT.	4.0 FT.	3.5 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL
GA-6	RT. 46 @ STA. 129+65 L	2.0 FT.	8.0 FT.	5.0 FT.	3	12.0 FT.	12.0 FT.	12.0 FT.	4.0 #/FT.	STEEL
GA-7	RT. 46 @ STA. 122+52 L	2.0 FT.	6.0 FT.	6.5 FT.	3	13.0 FT.	13.0 FT.	13.0 FT.	4.0 #/FT.	STEEL
GA-8	RAMP "C" @ STA. 34+00 R	6.0 FT.	6.0 FT.	4.5 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL
GA-9	CR 625 @ STA. 12+92 R	10.0 FT.	4.0 FT.	3.5 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL
GA-10	CR 625 @ STA. 14+62 L	10.0 FT.	5.0 FT.	4.0 FT.	2	11.0 FT.		11.0 FT.	4.0 #/FT.	STEEL

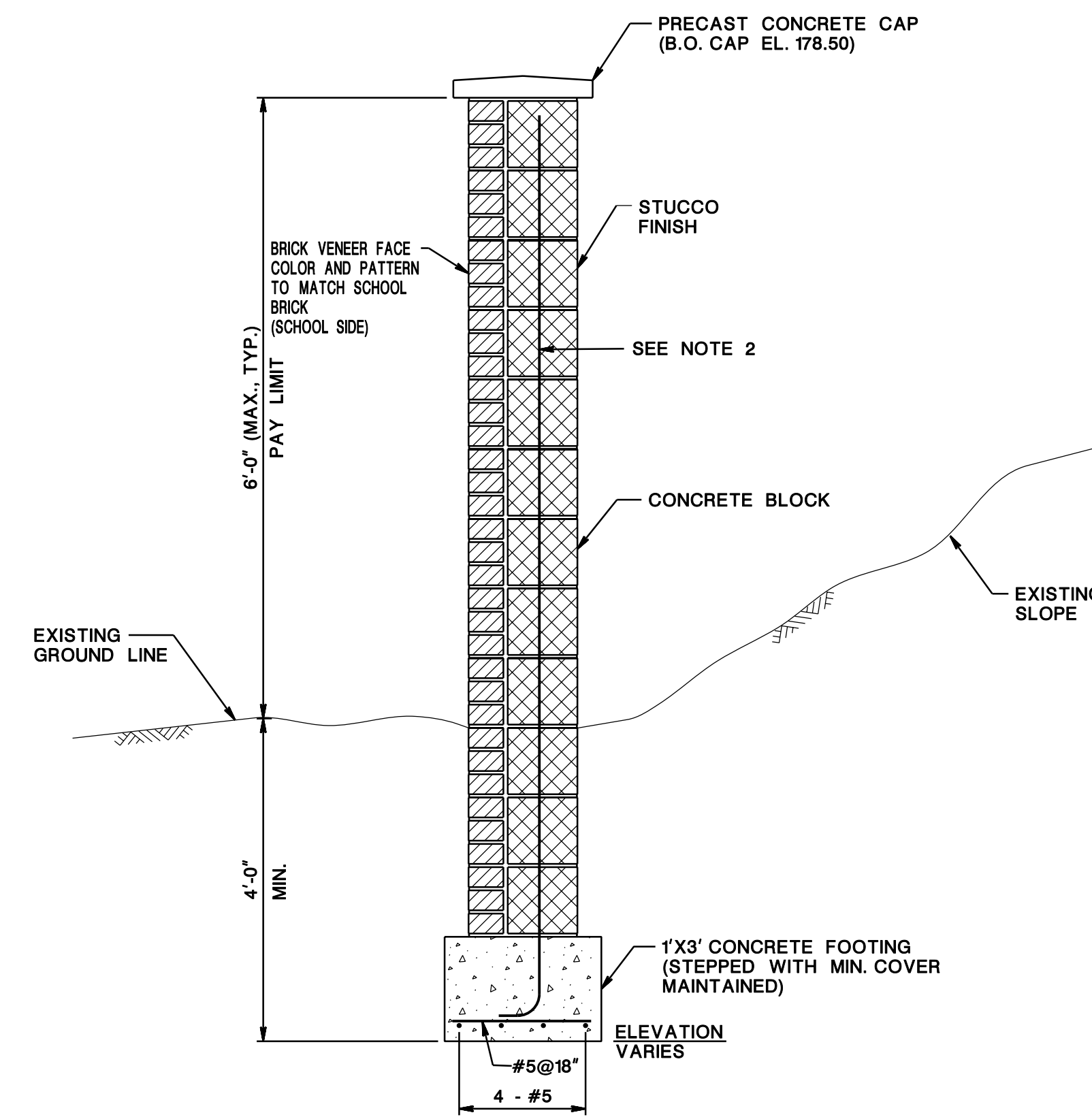
STEEL U-POST SIGN SUPPORTS

STEEL POSTS, POST CLIPS, SPACING, ETC. AND TWO PIECE STEEL U-POSTS.



VINYL FENCE (PRIVACY, 6' HIGH)

- NOTES:**
- FENCE INCLUDING PICKETS, RAILS, POSTS AND CAPS SHALL BE CONSTRUCTED WITH MATERIALS MADE OF RIGID POLY VINYL CHLORIDE (PVC) THAT MEETS OR EXCEEDS ASTM D1784 AND IS TAN IN COLOR.
 - DIMENSIONS ARE APPROXIMATE AND SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS



LANDSCAPE ACCENT WALL

- NOTES:**
- PROVIDE WALL TIES CONNECTING BRICK VENEER TO CMU AT 16 INCH O.C. VERTICALLY 24 O.C. INCH HORIZONTALLY.
 - PROVIDE #5 VERTICAL REBAR WITHIN THE GROUTED CMU CORE SPACED AT 3 FOOT FOR FULL WALL HEIGHT.

N.T.S.

DTL-5
DTL-12

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

**ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370**

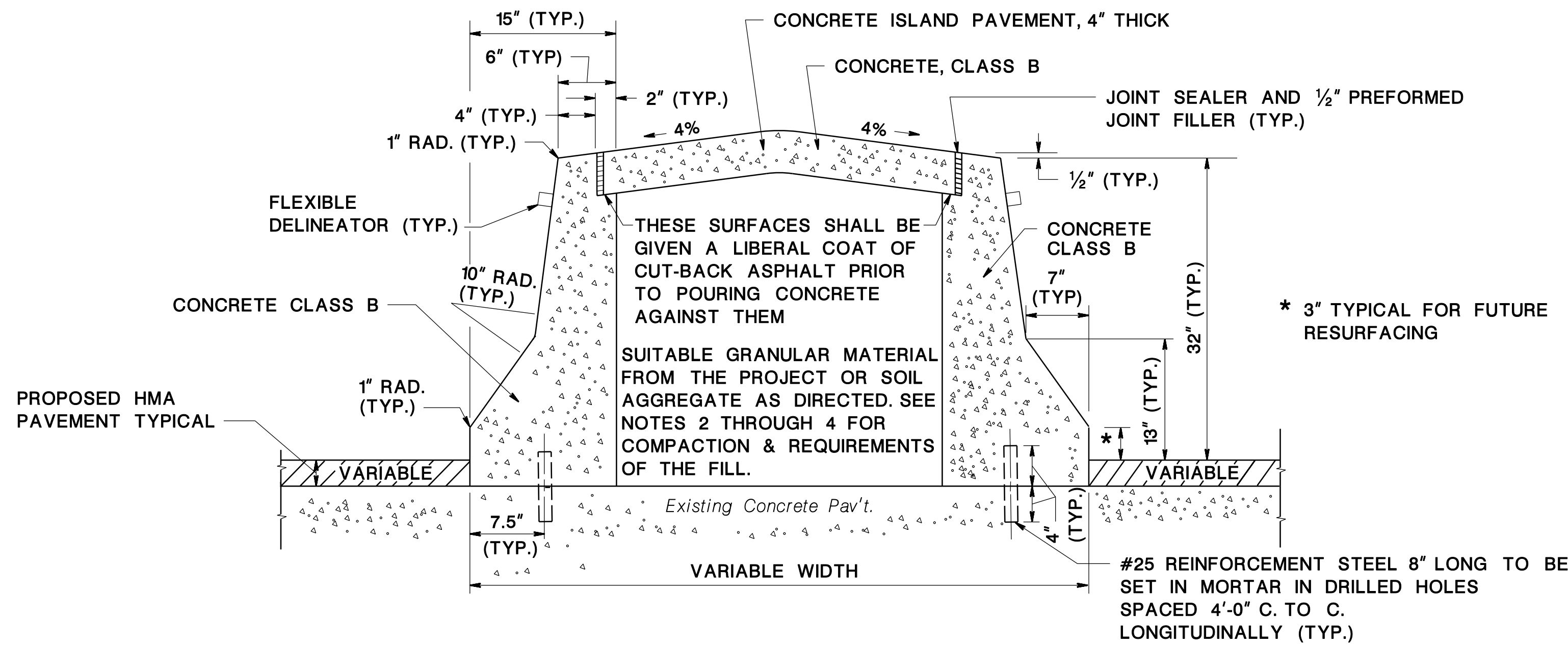
ARORA and ASSOCIATES, P.C.

PROFESSIONAL ASSOCIATION

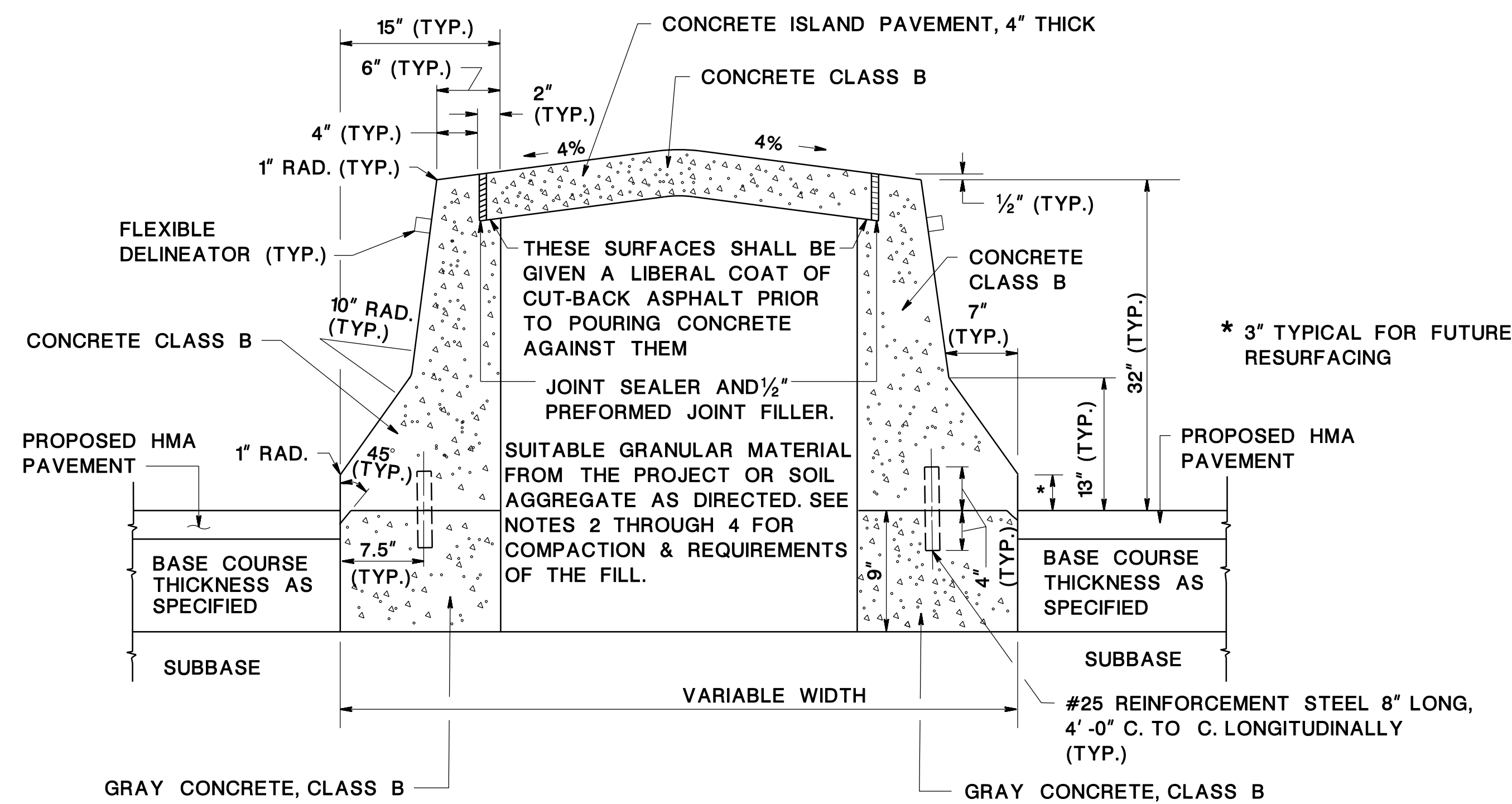
MICHAEL G. WRIGHT, P.E.

NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24E02963100

User Name: \$USERNAM\$
Plot Date: \$DATE\$ \$TIME\$
Pen Table: \$PENTABLE\$
Design File: \$FILE\$



15" x VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED

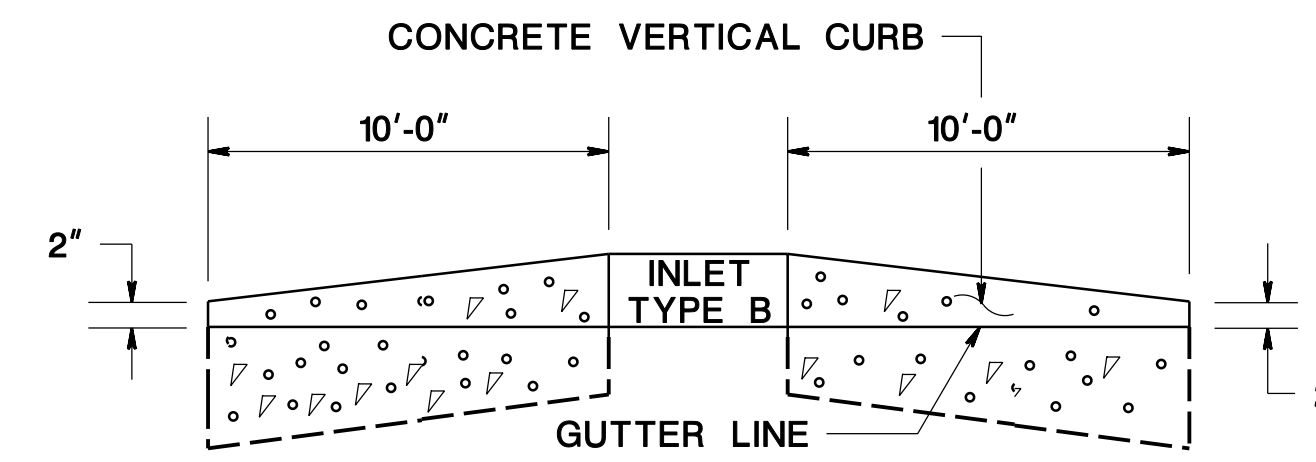


15" x 41" CONCRETE BARRIER CURB

NOTES:

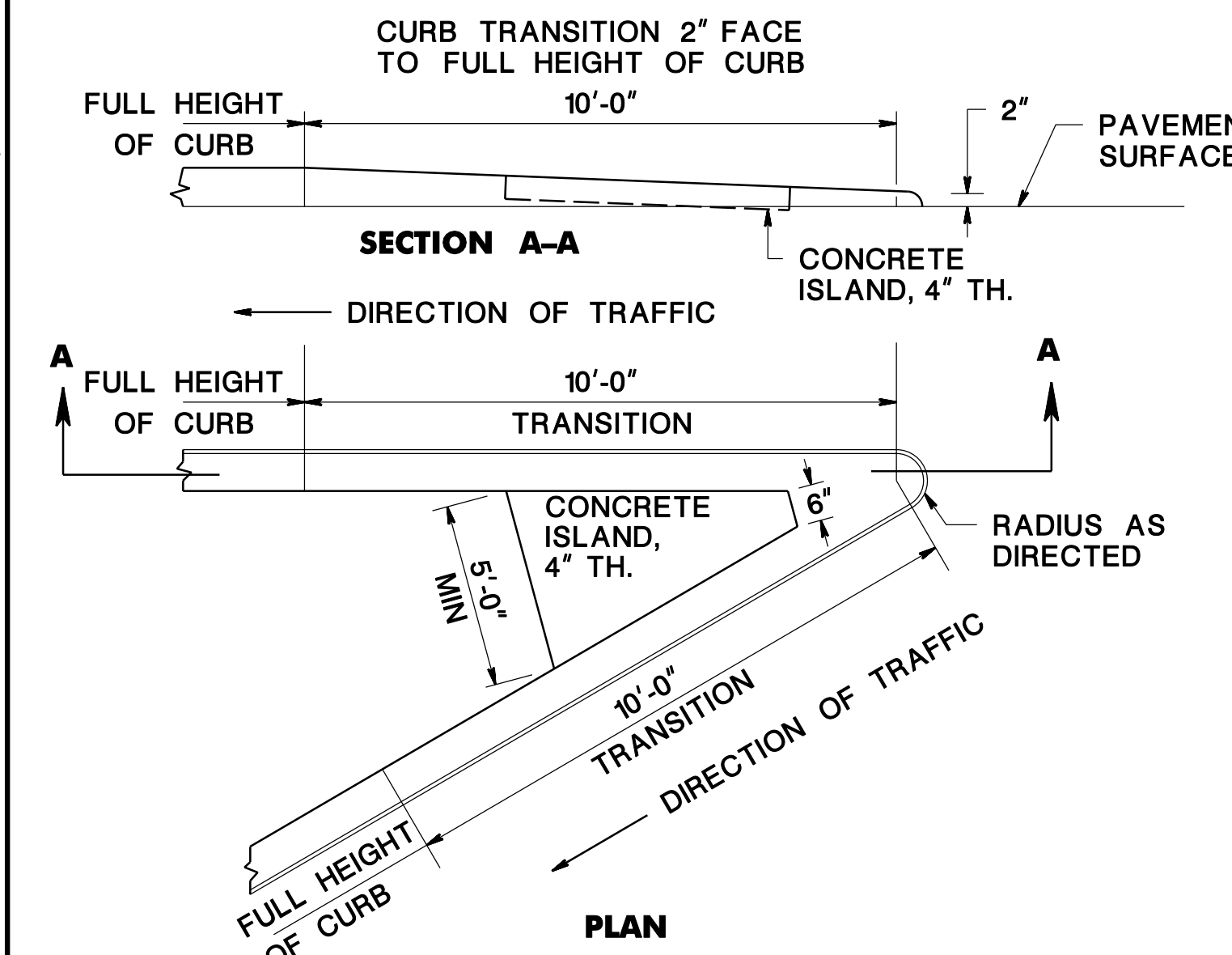
1. SEE GENERAL NOTES APPLYING TO ALL BARRIER CURB CD-607-3.2.
2. COMPACTION SHALL BE IN ACCORDANCE WITH THE DIRECTED METHOD OF THE NJDOT STANDARD SPECIFICATIONS AND ITS SUPPLEMENTS.
3. THE FILL BETWEEN THE CURBS SHALL BE SHAPED AND COMPACTED TO A FIRM EVEN SURFACE. UNSTABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL WHICH SHALL BE COMPACTED.
4. SOIL LIFTS SHALL BE LIMITED TO 12 INCHES AND EACH LIFT SHALL BE COMPACTED.

CD-607-2.1

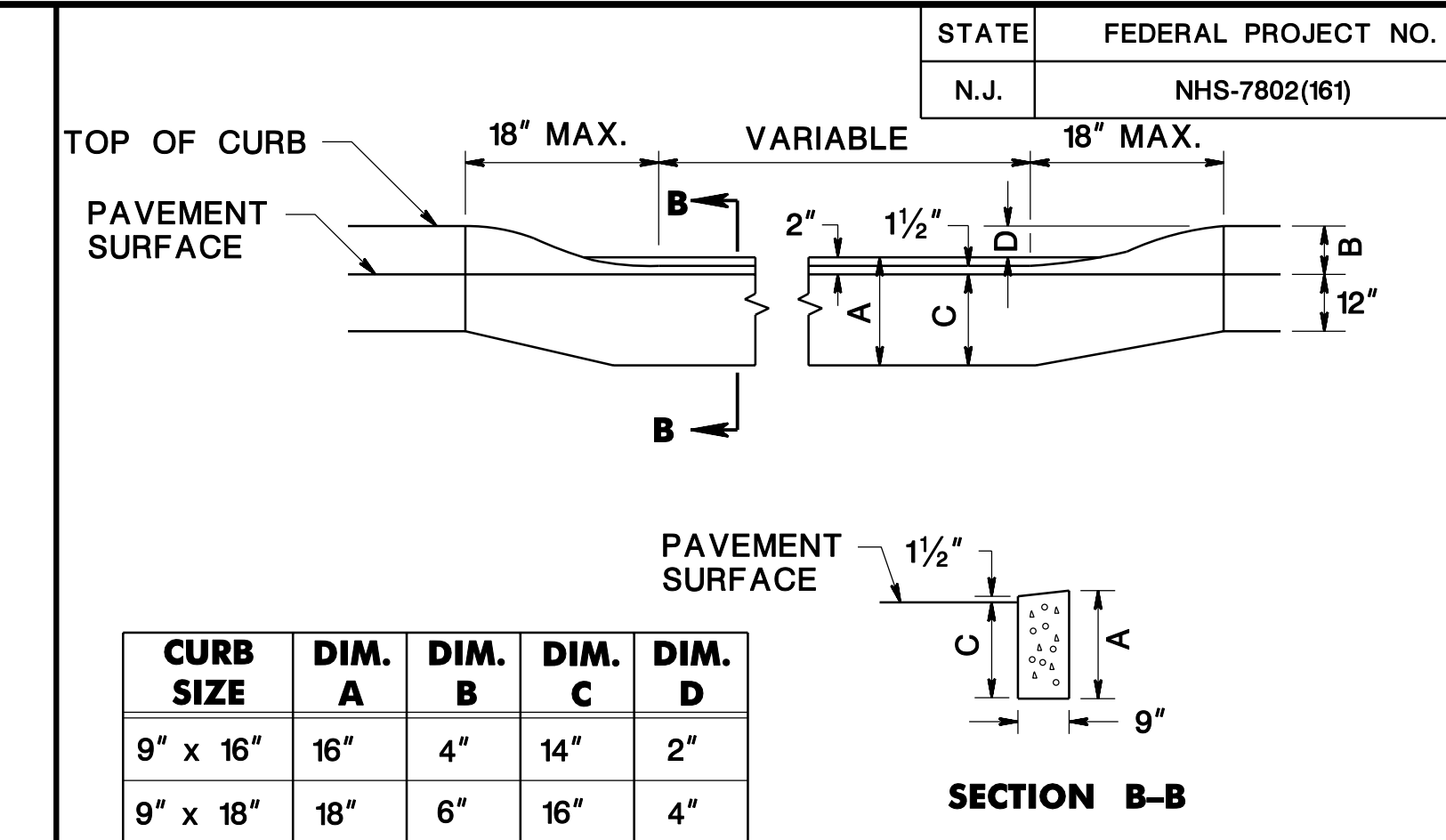


CURB TREATMENT AT BERM SECTION AND ALL CURB ENDS

CD-607-2.2

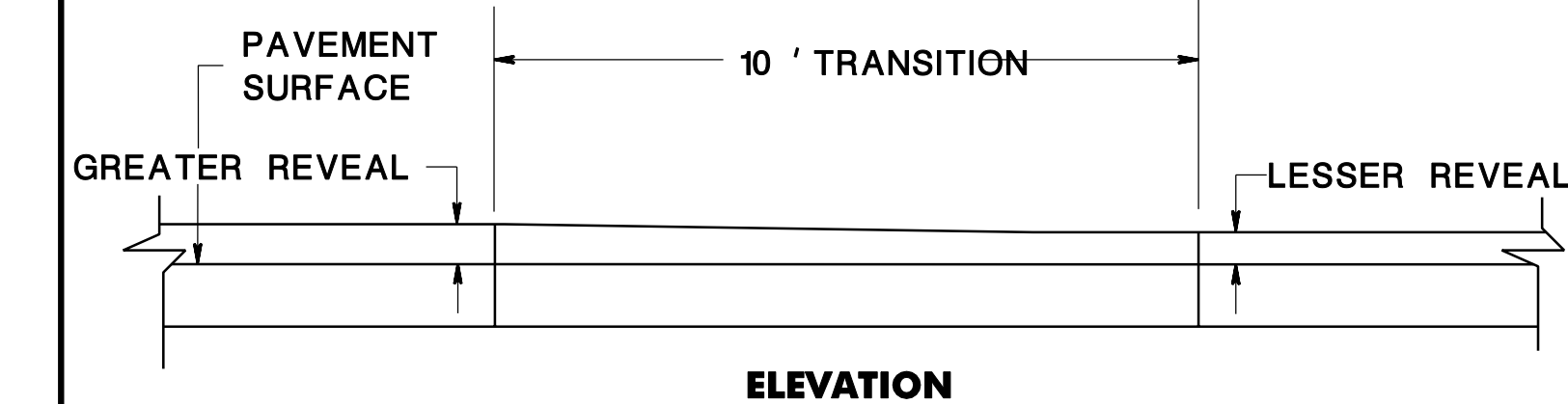


CD-607-2.3



METHOD OF DEPRESSING CURB AT DRIVEWAYS

CD-607-2.4



LINEAR CURB TRANSITION

CD-607-2.5

REINFORCEMENT STEEL IS IN METRIC UNITS
HMA = HOT MIX ASPHALT

BARRIER CURB AND VERTICAL CURB

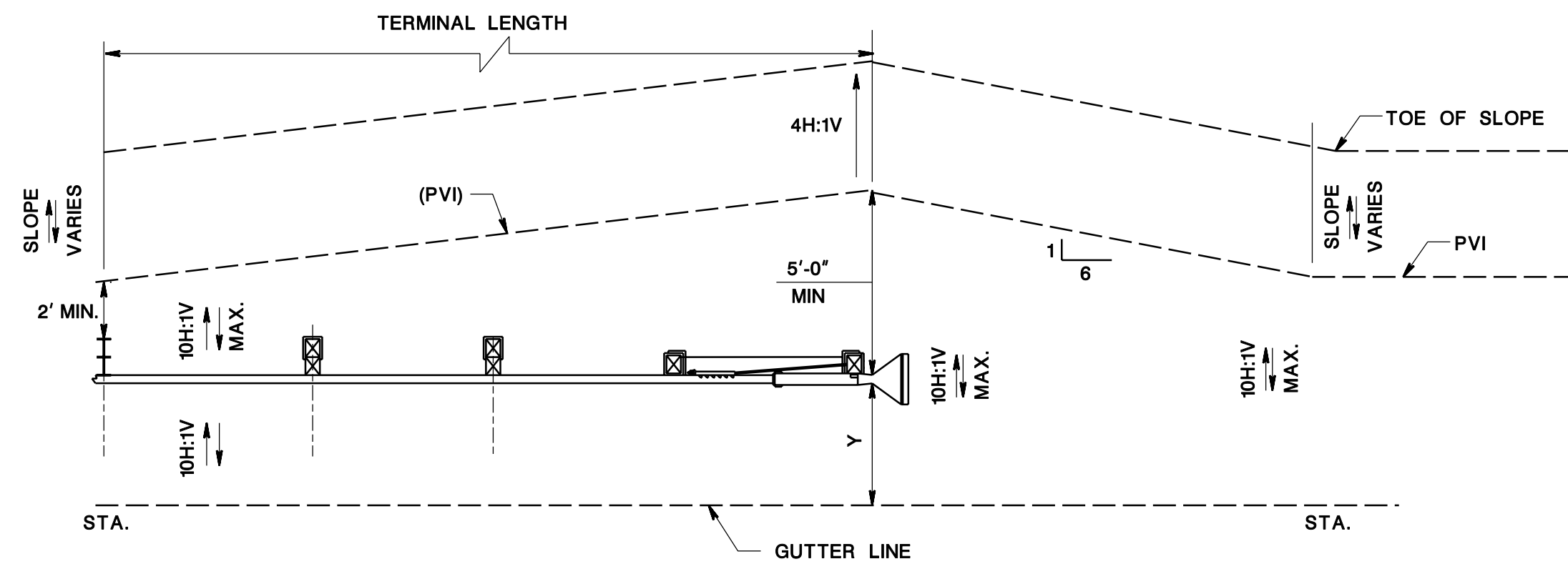
N.T.S.

CD-607-2 NEW JERSEY DEPARTMENT OF TRANSPORTATION

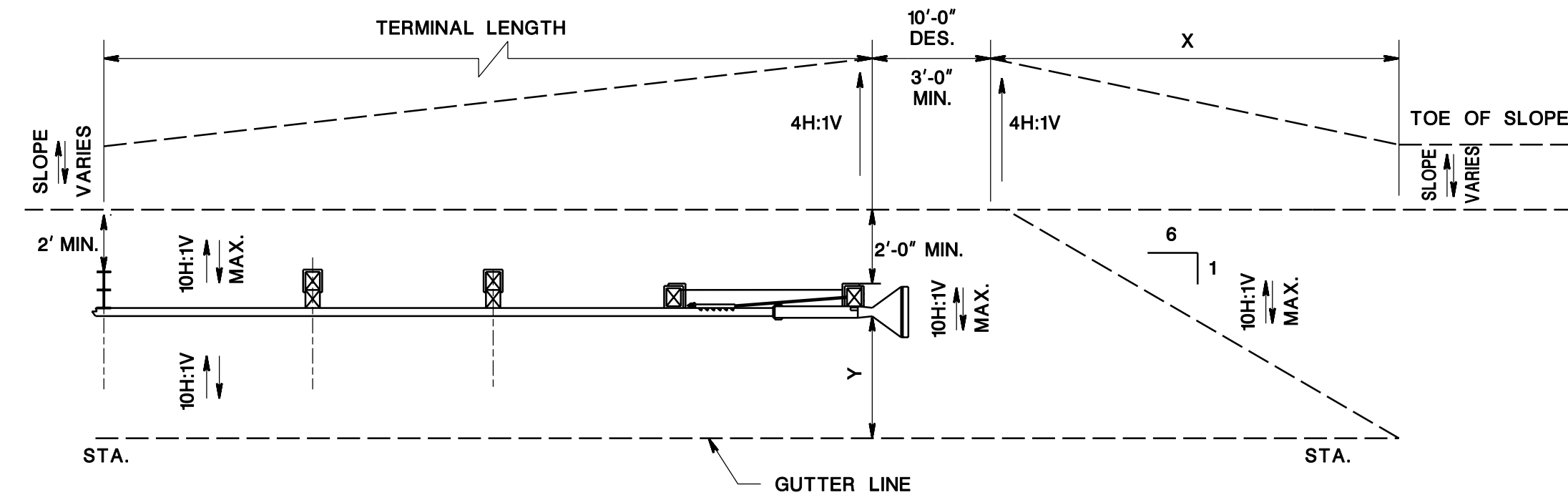
CONSTRUCTION DETAILS

ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370

User Name: \$USER\$
Plot Date: \$DATE\$
Pen Table: \$PEN\$
Design File: \$FILE\$
BDC08D-01-LINEAR CURB TRANSITION



STANDARD GRADING



ALTERNATE GRADING

GRADING	STANDARD/ALTERNATE
STATION TO STATION	
ROUTE 46 @ 115+68 TO 116+45 RIGHT	STANDARD
ROUTE 46 @ 122+79 TO 123+20 LEFT	STANDARD
CR 625 @ 3+89 TO 4+49 LEFT	ALTERNATE
CR 625 @ 4+84 TO 5+39 RIGHT	ALTERNATE
CR 625 @ 14+14 TO 14+74 LEFT	ALTERNATE
RAMP B @ 23+65 TO 24+25 RIGHT	STANDARD
RAMP C @ 32+03 TO 32+81 RIGHT	STANDARD

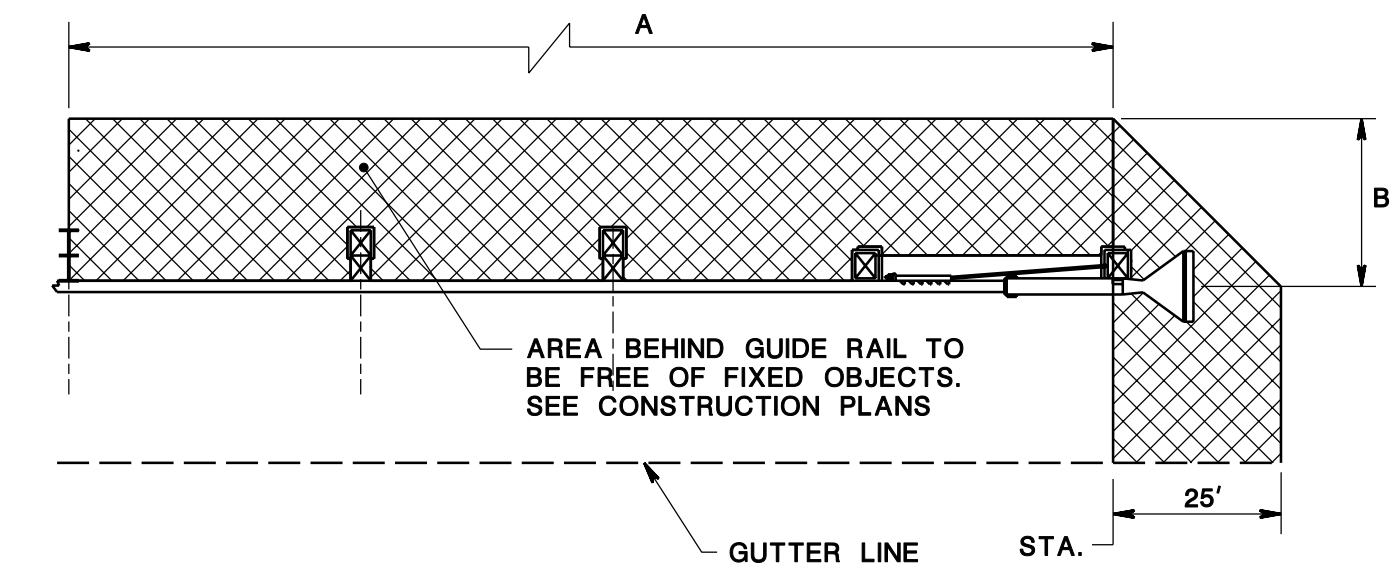
Y = OFFSET FROM GUTTER LINE	X	X + 10' (DES.)
* 1'-0"	24'-0"	34'-0"
4'-0"	42'-0"	52'-0"
7'-0"	60'-0"	70'-0"
10'-0"	78'-0"	88'-0"

GRADING TREATMENT AT FLARED AND TANGENT TERMINALS

*** NOTE:**
WHERE GUIDE RAIL IS INSTALLED FLUSH WITH THE GUTTER LINE, THE TANGENT TERMINAL SHALL BE CONSTRUCTED WITH A 50:1 STRAIGHT FLARE FOR ITS ENTIRE LENGTH SO THAT THE EXTRUDER HEAD DOES NOT PROTRUDE INTO THE ROADWAY.

CD-609-9.2

ROADSIDE RECOVERY AREA		
STATION	A	B
ROUTE 46 @ 116+07 RIGHT	37.5'	6'
ROUTE 46 @ 123+16 LEFT	37.5'	8'
CR 625 @ 3+99 LEFT	50'	6'
CR 625 @ 4+87 RIGHT	50'	6'
CR 625 @ 14+64 LEFT	50'	6'
RAMP B @ 23+86 RIGHT	37.5'	6'
RAMP C @ 32+43 RIGHT	37.5'	6'



NOTE:
THERE SHALL BE NO FIXED OBJECTS IN FRONT OF THE GUIDE RAIL FOR ITS ENTIRE LENGTH.

RECOVERY AREA AT FLARED AND TANGENT TERMINALS

CD-609-9.1

GRADING AND ROADSIDE RECOVERY AREA AT FLARED AND TANGENT TERMINALS

N.T.S.

CD-609-9

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370

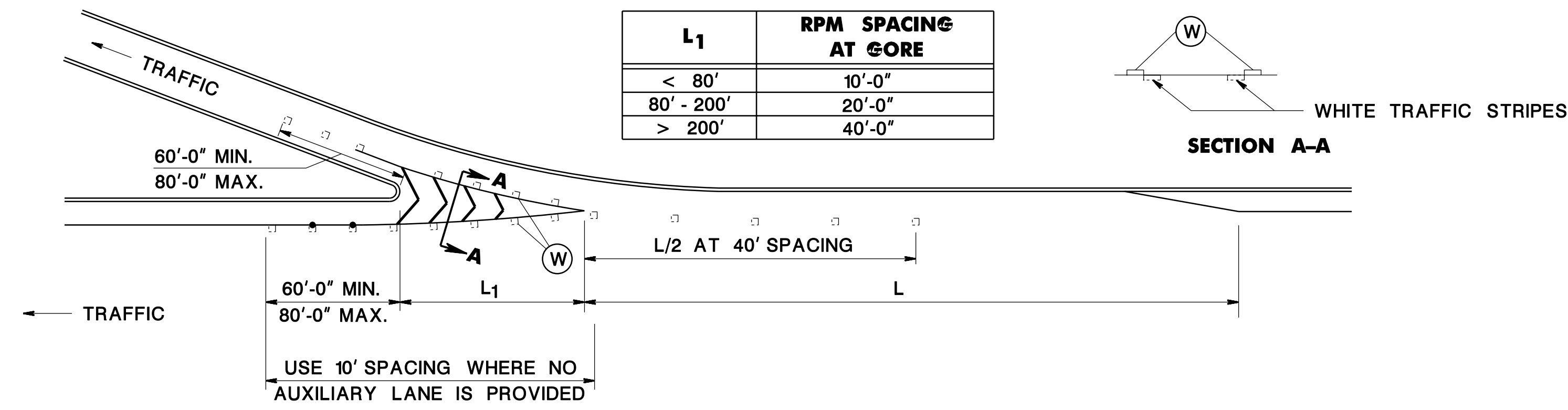
ARORA and ASSOCIATES, P.C.
PROFESSIONAL ASSOCIATION

MICHAEL G. WRIGHT, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24E02963100

DTL-7
DTL-12

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User Name: \$USERNAM\$
Plot Date: \$DATE\$ \$TIME\$
Pen Table: \$PENTABLE\$
Design File: \$FILES\$
BDC07D-01-ORIGINAL SHEET



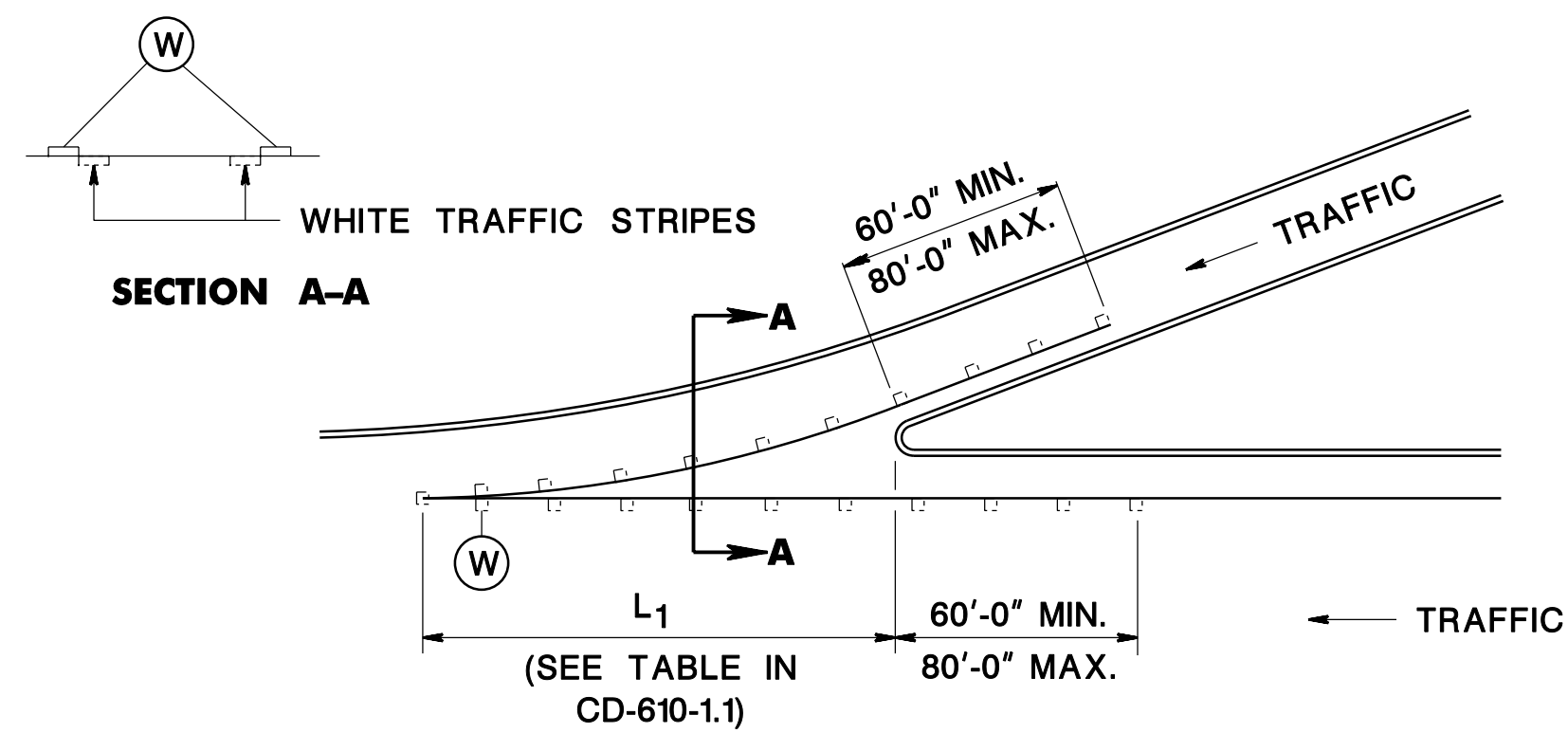
TYPICAL DECELERATION LANE TREATMENT

CD-610-1.1

LEGEND

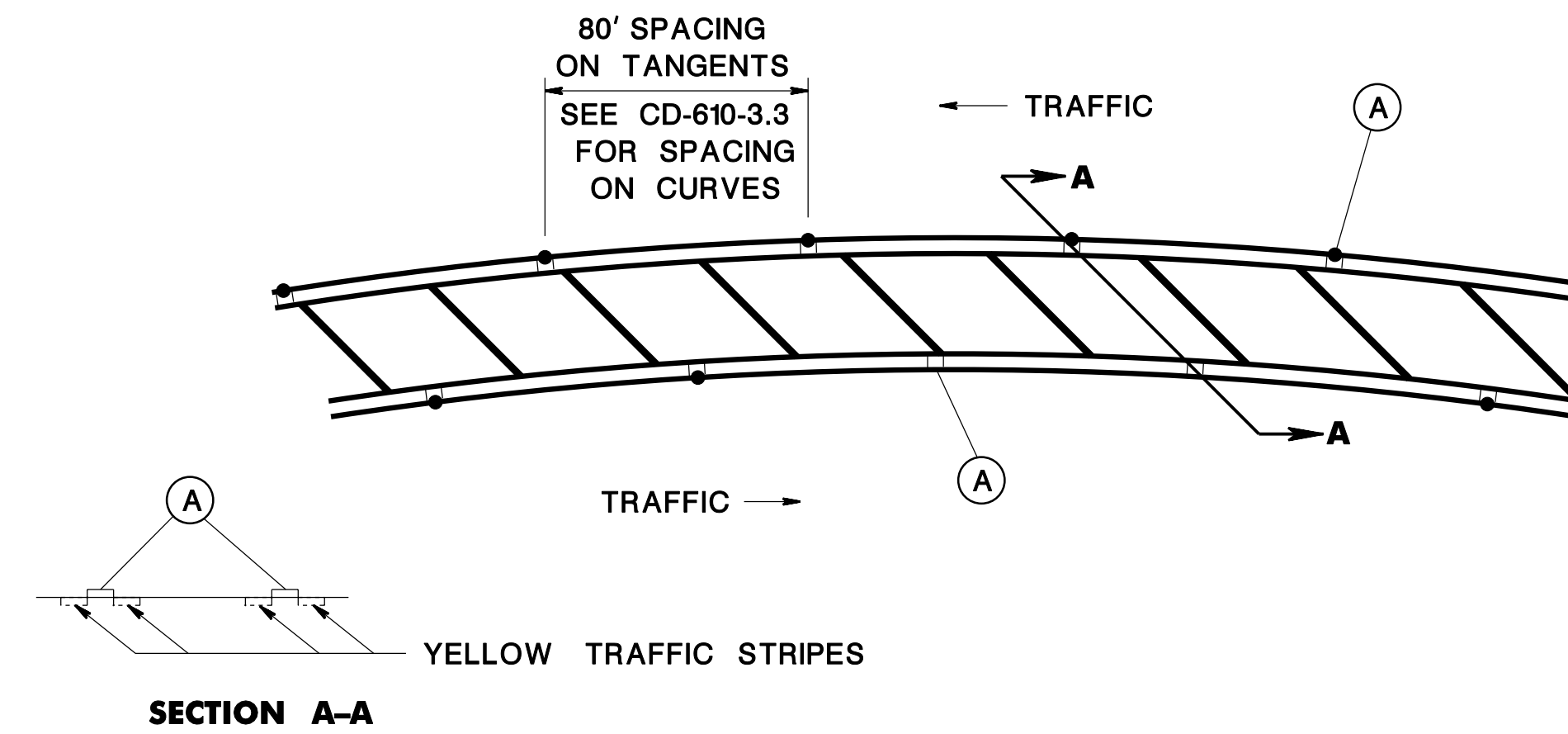
- (W) RPM, MONO-DIRECTIONAL WHITE LENS
- (A) RPM, MONO-DIRECTIONAL AMBER LENS

CD-610-1.2



TYPICAL ACCELERATION LANE TREATMENT

CD-610-1.3



TYPICAL PAVED MEDIAN TREATMENT

CD-610-1.4

RAISED PAVEMENT MARKER, (RPM) LOCATION

N.T.S.

CD-610-1

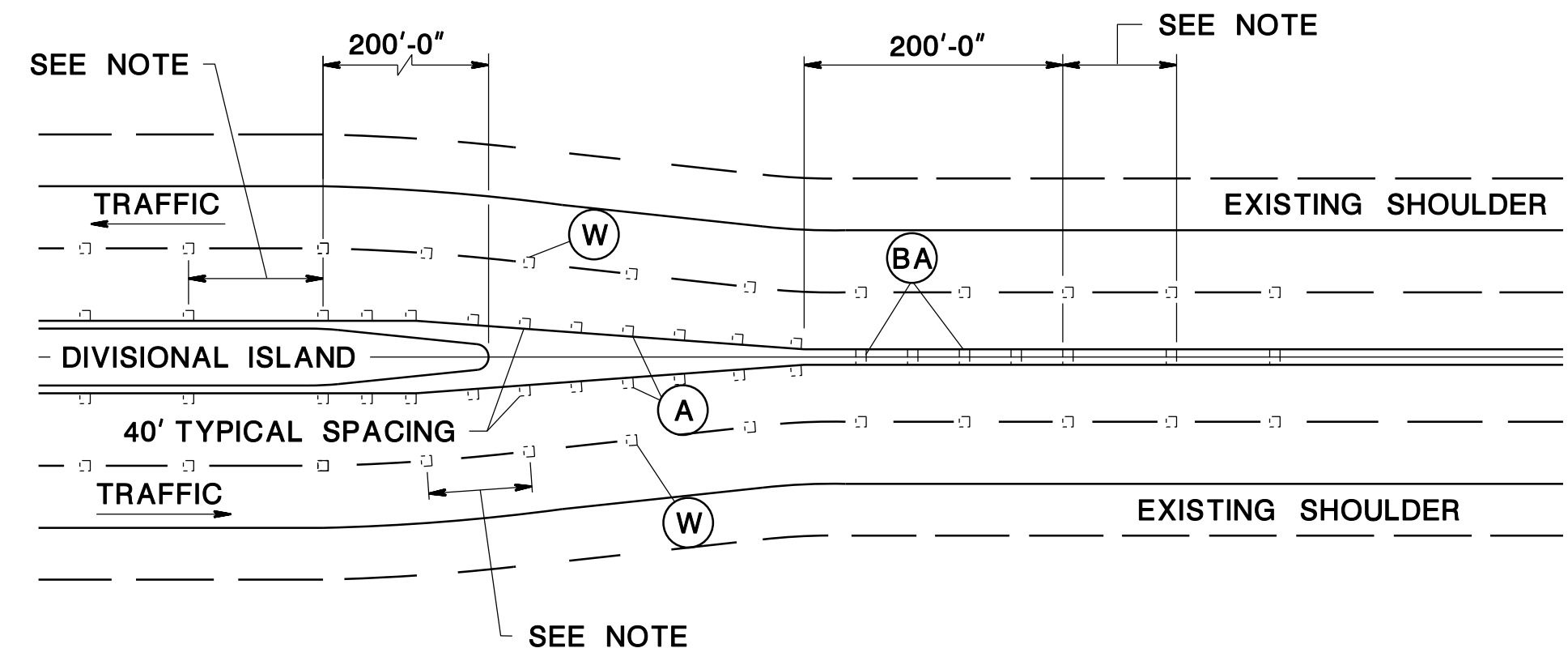
DTL-8
DTL-12

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

**ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370**

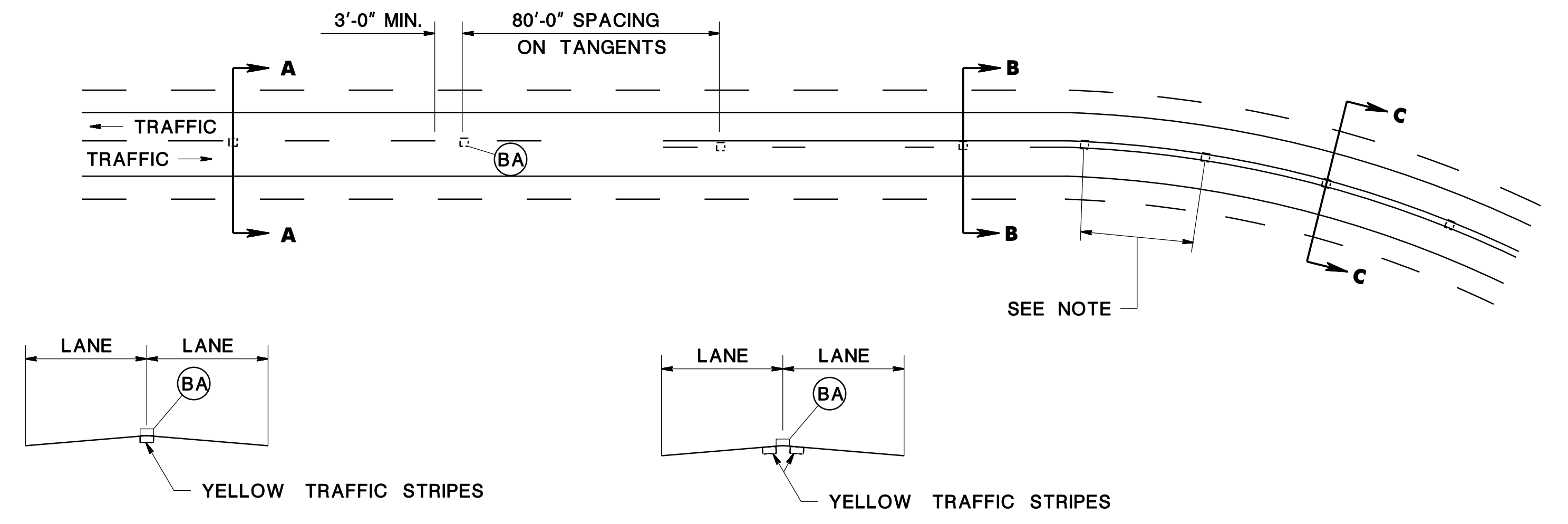
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NOTE:
80 FOOT SPACING ON TANGENT FOR SPACING ON CURVES SEE CD-610-3.3

TYPICAL DIVISIONAL ISLAND TREATMENT

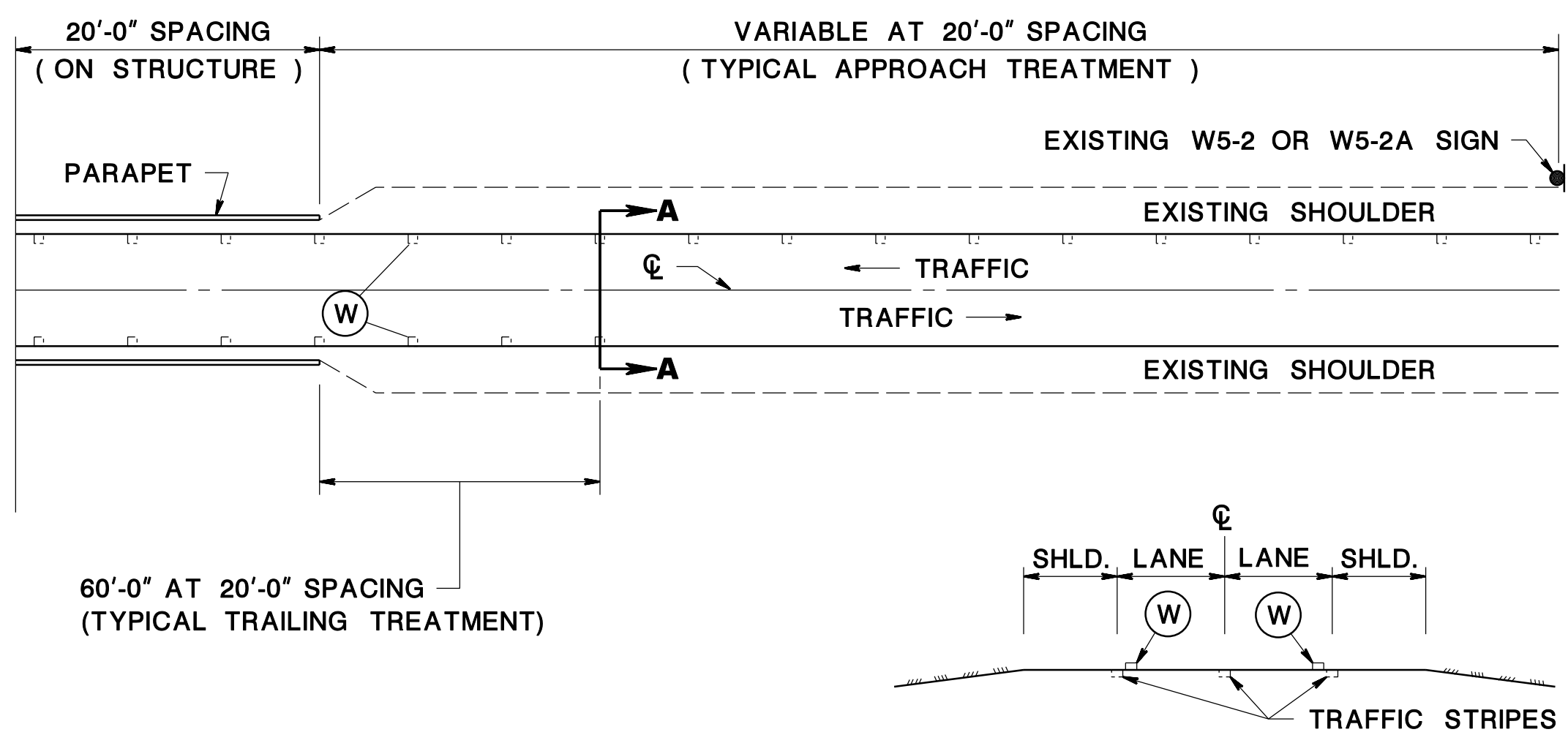
CD-610-2.1



NOTE:
FOR SPACING ON CURVES SEE CD-610-3.3

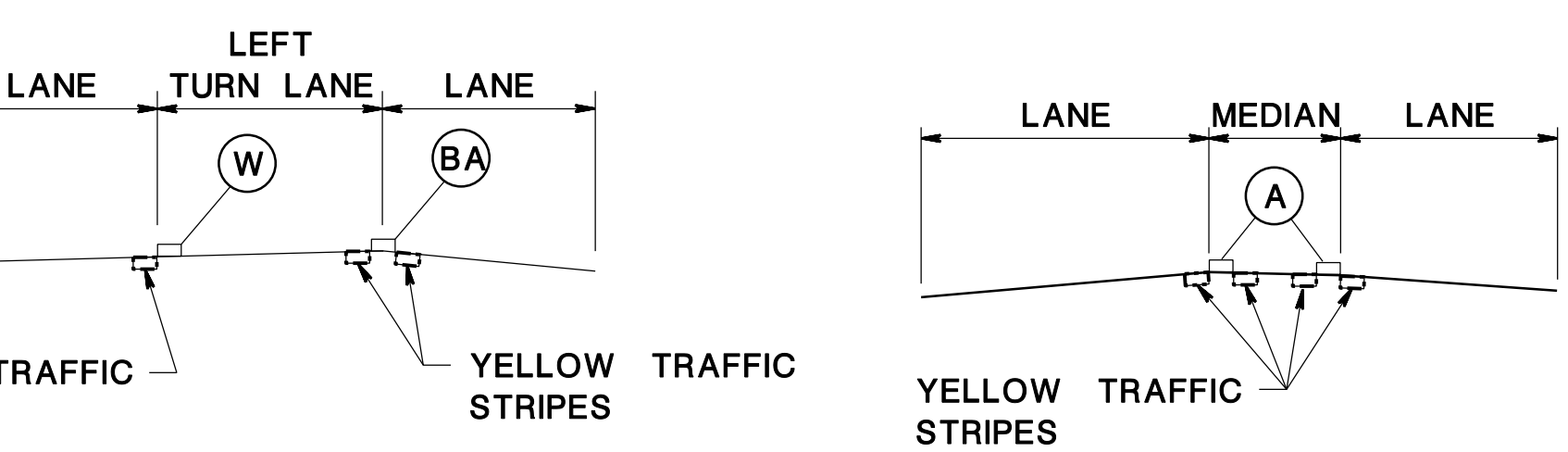
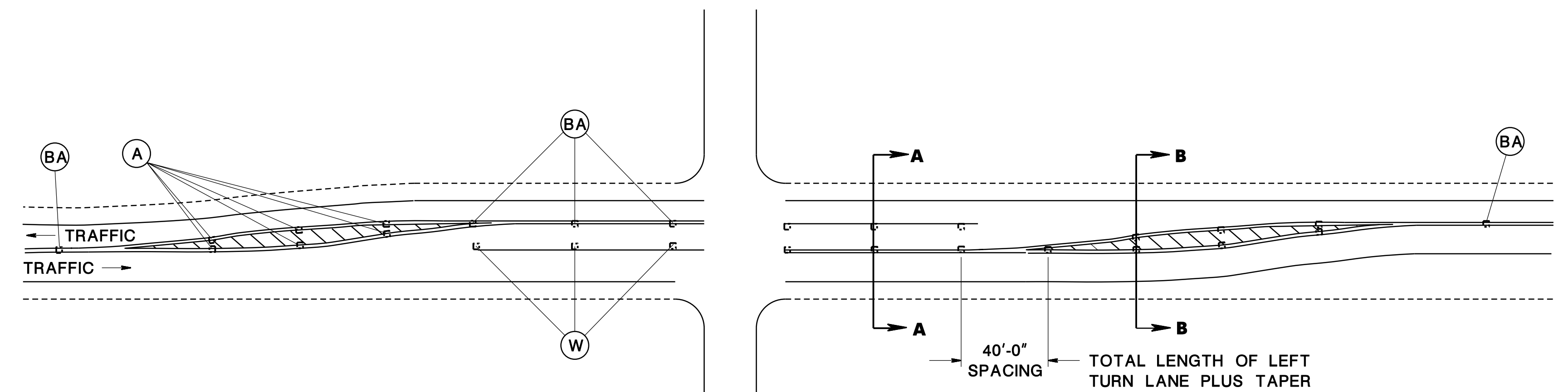
TYPICAL TWO LANE SECTION

CD-610-2.4



NARROW BRIDGE OR CULVERT TREATMENT

CD-610-2.2



TYPICAL LEFT TURN LANE SECTION

CD-610-2.5

LEGEND

- (W) RPM, MONO-DIRECTIONAL WHITE LENS
- (A) RPM, MONO-DIRECTIONAL AMBER LENS
- (BA) RPM, BI-DIRECTIONAL AMBER LENS

CD-610-2.3

RAISED PAVEMENT MARKER, (RPM) LOCATION

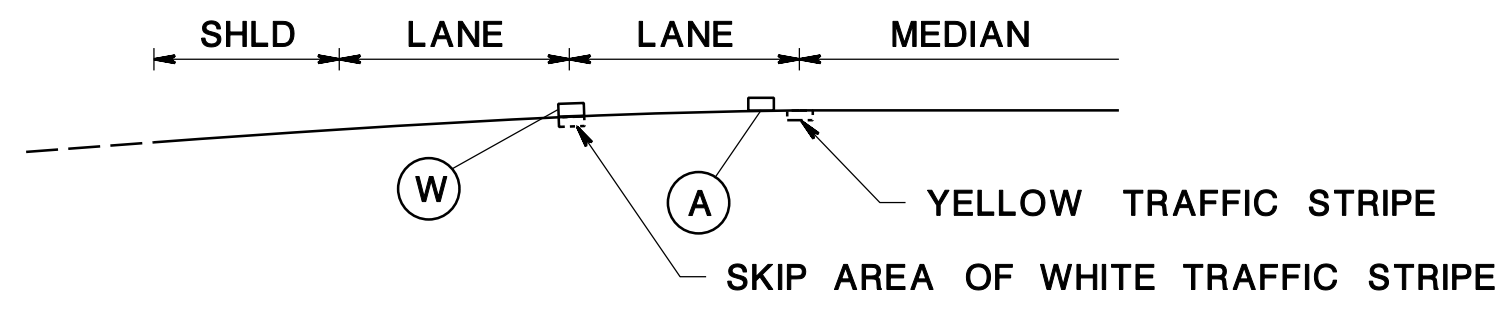
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CD-610-2
NEW JERSEY DEPARTMENT OF TRANSPORTATION

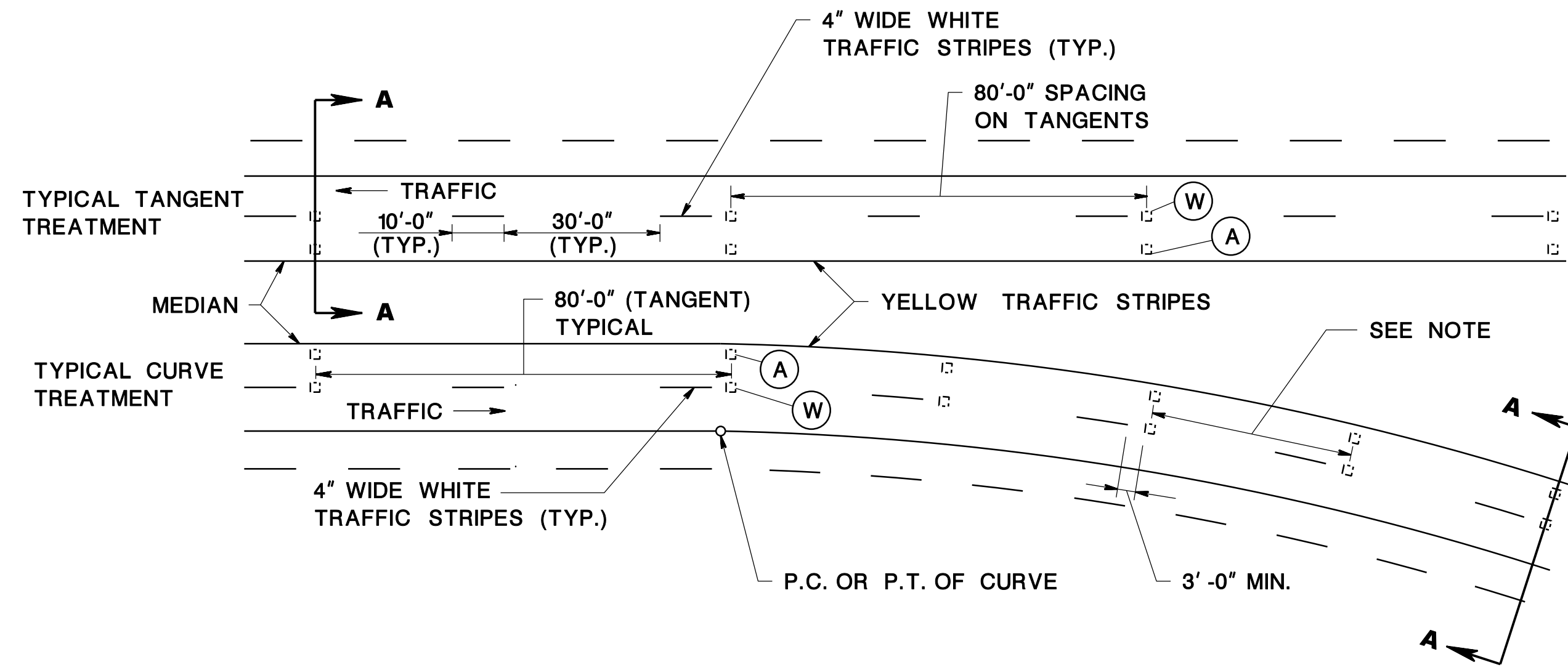
CONSTRUCTION DETAILS

ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370

User Name: \$USERNAM\$
Plot Date: \$DATE\$
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BDC08D-01-LEGEND



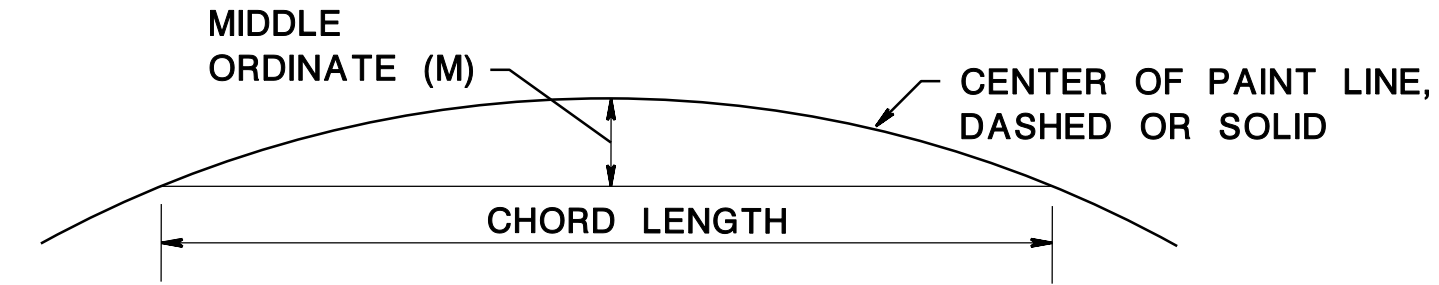
SECTION A-A (TYP.)



TYPICAL MULTI-LANE DIVIDED SECTION

NOTE:
FOR SPACING ON CURVES SEE CD-610-3.3

CD-610-3.1



1. USE 200 FOOT TAPE.
2. ESTABLISH 200 FOOT CHORD.
3. MEASURE MIDDLE ORDINATE PERPENDICULAR TO CHORD 100 FOOT FROM EITHER END.
4. DETERMINE SPACING FROM TABLE 1.
5. WHEN DIFFICULT TO DETERMINE MIDDLE ORDINATE, 80 FOOT OR 40 FOOT SPACING WILL BE AS DIRECTED BY THE DEPARTMENT.

TABLE 1

CHORD LENGTH	MIDDLE ORDINATE	RADIUS	REFLECTOR SPACING
200'-0"	$M \geq 2'-7"$	$R \leq 1910'$	40'-0"
200'-0"	$M < 2'-7"$	$R > 1910'$	80'-0"

< LESS THAN
 ≤ EQUAL TO OR LESS THAN
 > GREATER THAN
 ≥ EQUAL TO OR GREATER THAN

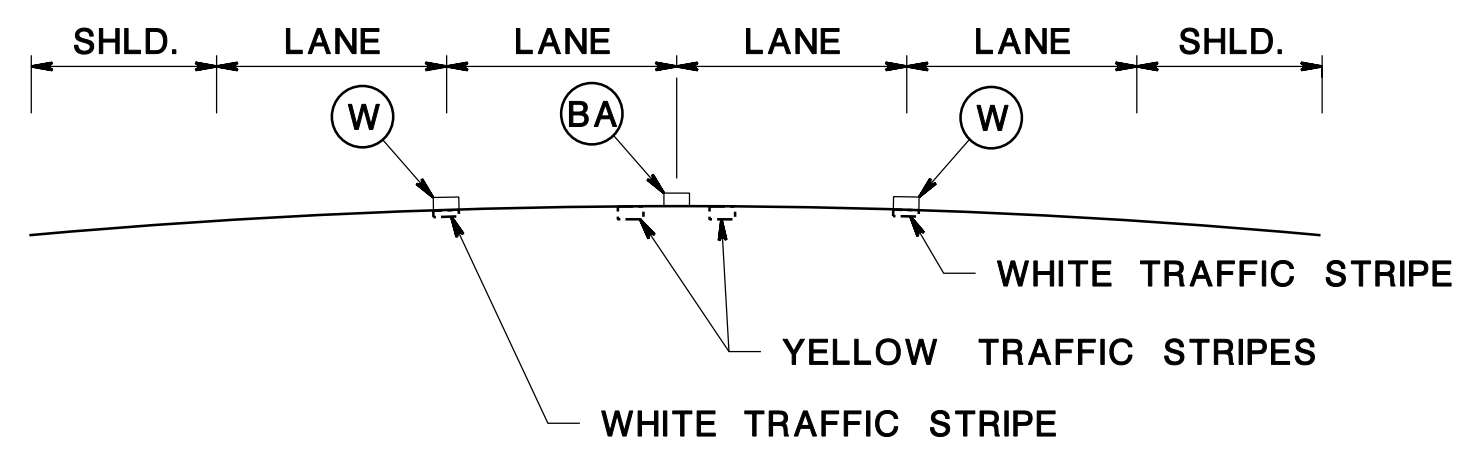
METHOD FOR DETERMINING RPM SPACING ON HORIZONTAL CURVES

CD-610-3.3

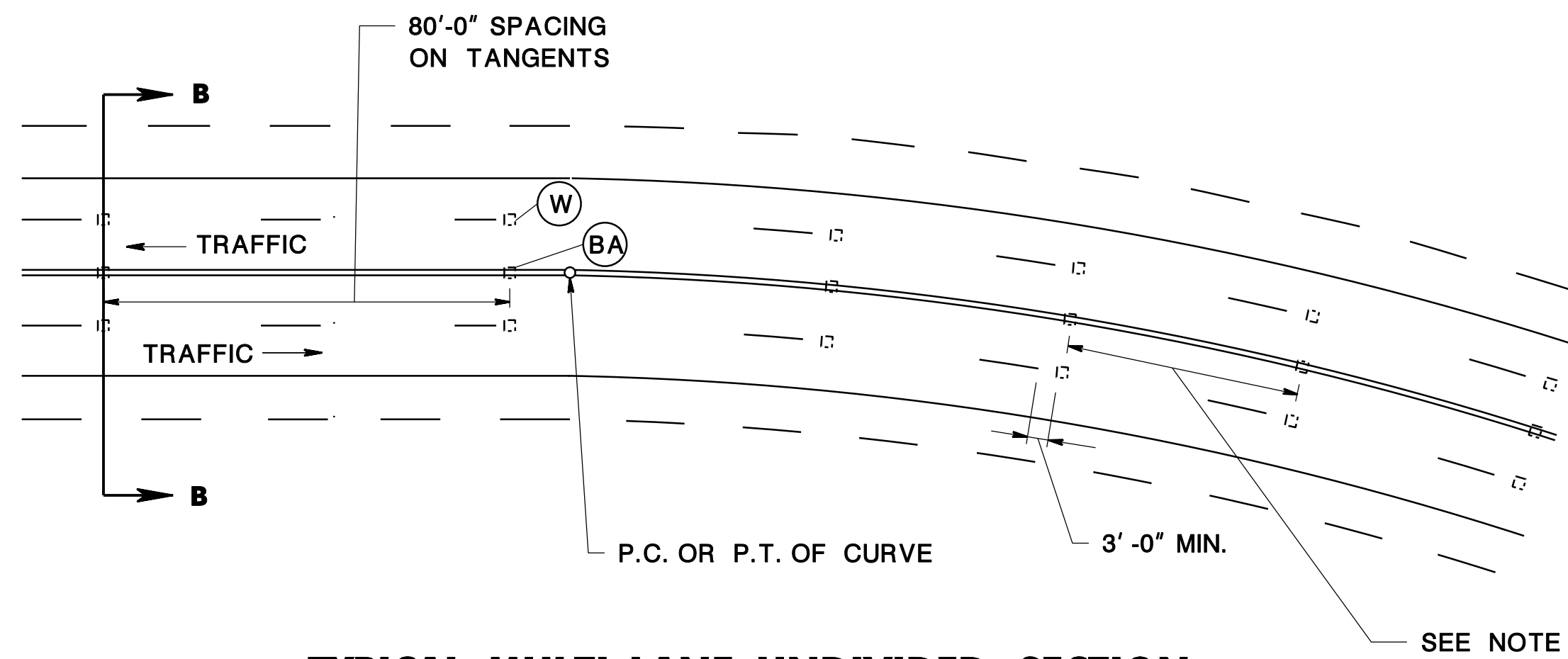
LEGEND

- (W) RPM, MONO-DIRECTIONAL WHITE LENS
- (A) RPM, MONO-DIRECTIONAL AMBER LENS
- (BA) RPM, BI-DIRECTIONAL AMBER LENS

CD-610-3.4



SECTION B-B



TYPICAL MULTI-LANE UNDIVIDED SECTION

NOTE:
FOR SPACING ON CURVES SEE CD-610-3.3

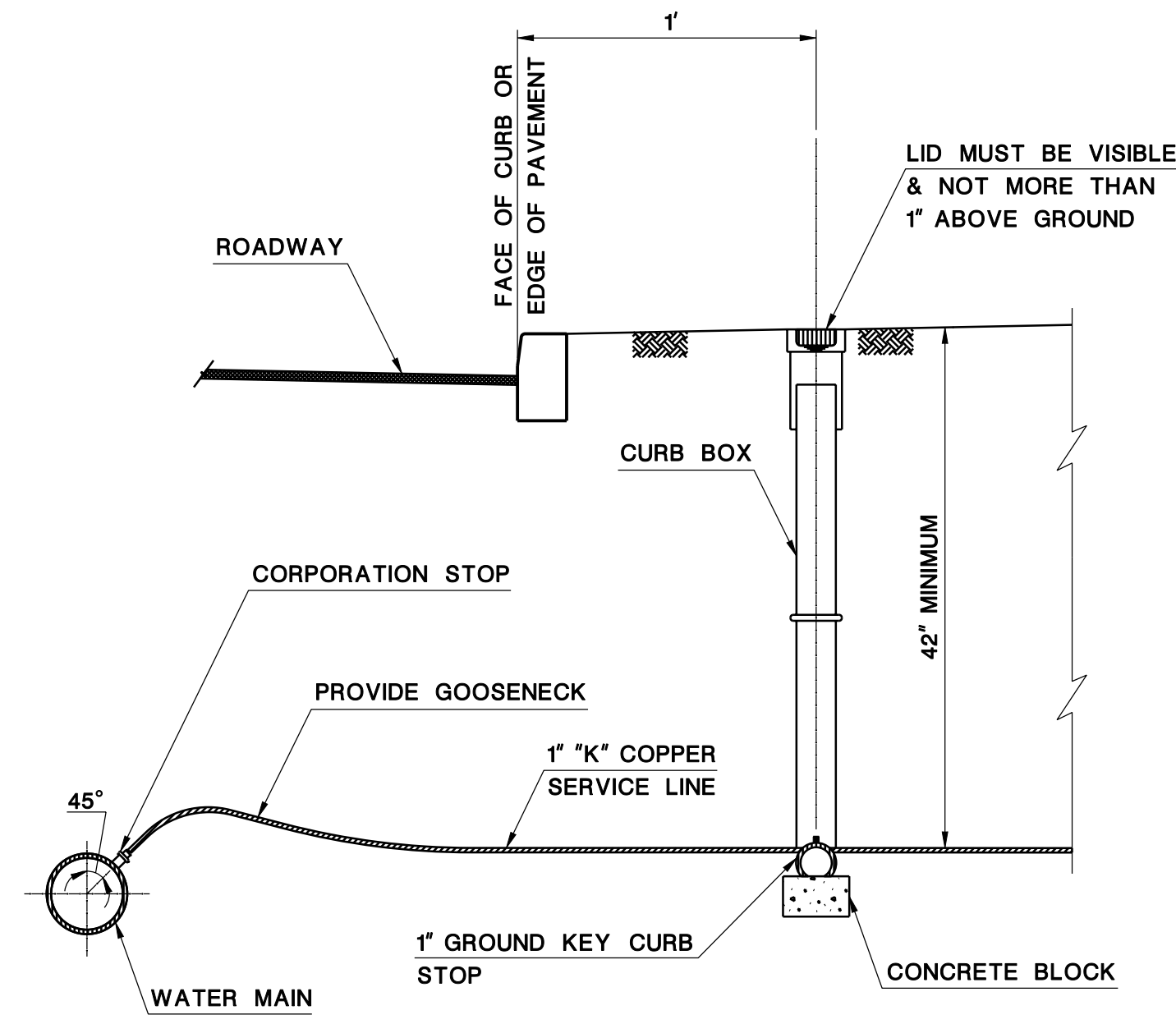
CD-610-3.2

RAISED PAVEMENT MARKER, (RPM) LOCATION

N.T.S.

CD-610-3	DTL-10 DTL-12
NEW JERSEY DEPARTMENT OF TRANSPORTATION	
CONSTRUCTION DETAILS	
ROUTE U.S. 46 AT HOLLYWOOD AVENUE CONTRACT NO. 053950370	

User Name: \$USERNAM\$
 Plot Date: \$DATE\$ \$TIME\$
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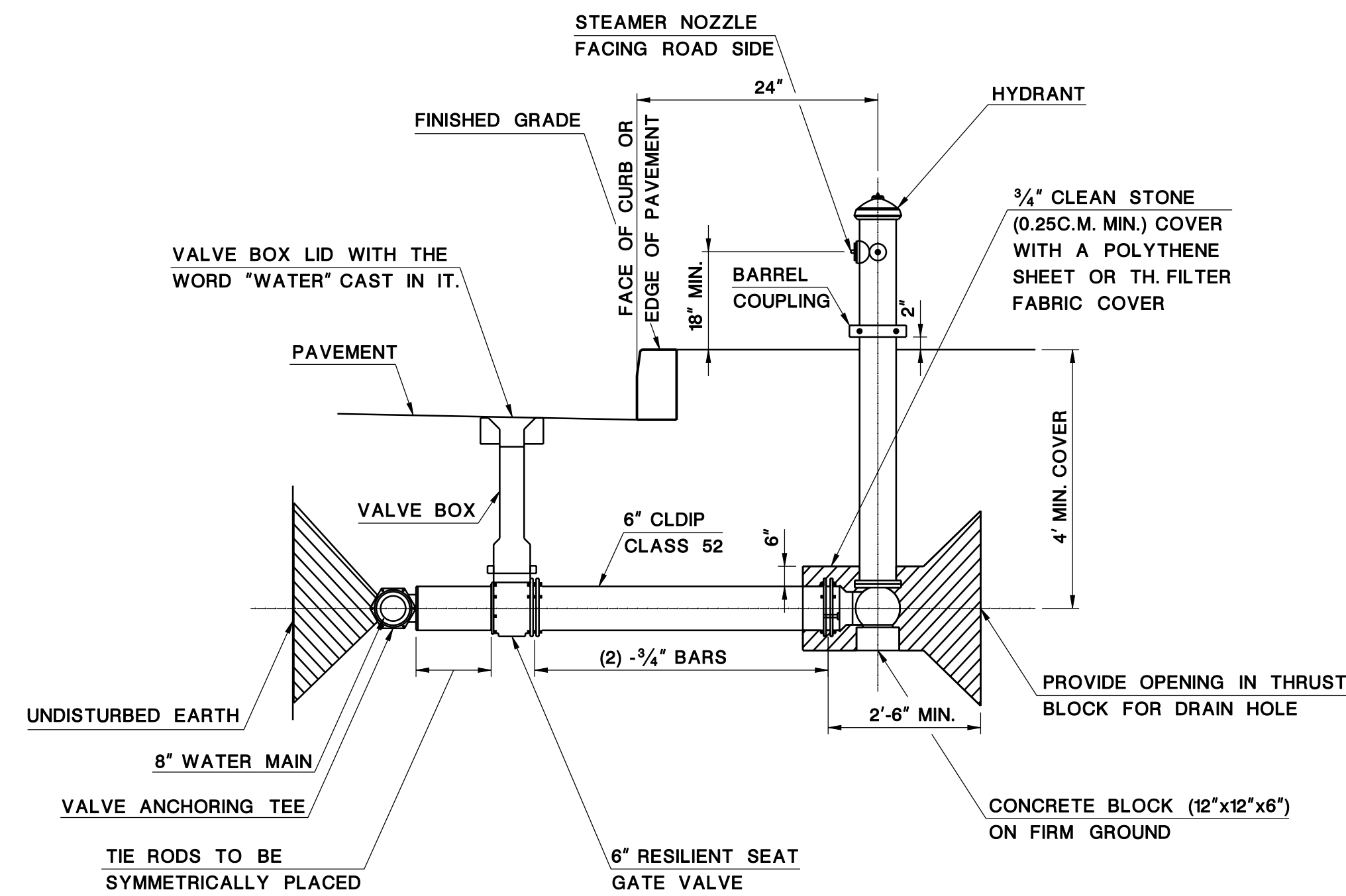


WATER SERVICE DETAIL

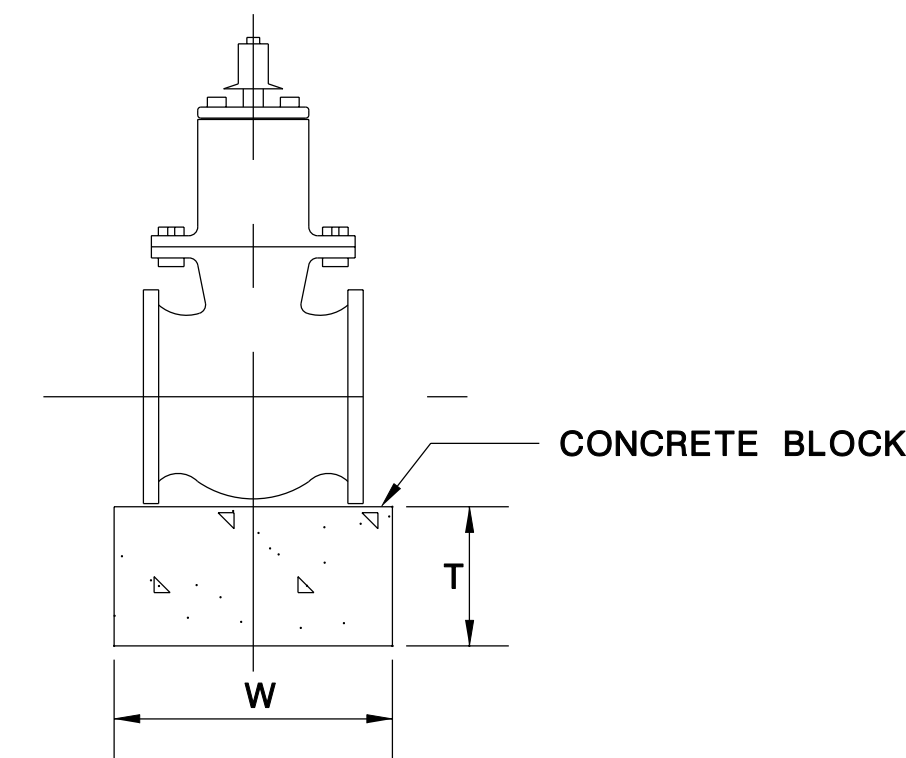
MINIMUM SIZE OF CONCRETE THRUST BLOCKS															
d	TEES & CROSSES			90° BENDS			45° BENDS			BENDS			REDUCERS		
	A	B	C	A	B	C	A	B	C	A	B	C	dxd	B	C
4"	18"	8"	18"	21"	8"	21"	15"	8"	15"	15"	8"	15"			
6"	24"	8"	18"	30"	8"	24"	18"	8"	15"	18"	8"	15"	6"x4"	18"	12"
8"	30"	8"	24"	36"	10"	32"	24"	10"	27"	18"	10"	21"	8"x4"	24"	18"
10"	36"	10"	33"	42"	12"	42"	36"	12"	27"	18"	12"	24"	10"x6"	28"	21"
12"	42"	10"	45"	54"	12"	45"	42"	12"	30"	18"	12"	36"	10"x8"	30"	24"
14"/16"	60"	15"	48"	66"	15"	54"	54"	15"	39"	30"	15"	42"			

- THRUST BLOCKS TO BE USED FOR WATER MAIN AND FORCE MAINS AT ALL BENDS, TEES, REDUCERS AND PLUGS.
- BEARING AREAS FOR THRUST BLOCKS ARE BASED ON THE UNDISTURBED SOIL WITH BEARING CAPACITY OF 2000 PSF. PER SQ. FT. FOR OTHER SOILS OF LESS BEARING CAPACITY, THE AREAS SHALL BE ADJUSTED ACCORDINGLY, (FIG. 14, ASCE "PIPELINE DESIGN FOR WATER AND WASTEWATER, 1975").
- ALL CONCRETE FOR THRUST BLOCKS SHALL BE 3000 PSI COMPRESSIVE STRENGTH WITHIN 28 DAYS.
- THE THRUST BLOCKS SHALL BE POURED FROM FITTING SUCH THAT THEY BEAR ON THE UNDISTURBED WALL OF THE TRENCH.
- THE TABULATED CONTACT BEARING AREAS LISTED ARE FOR HORIZONTAL AND DOWNWARD THRUST ONLY AND ARE NOT APPLICABLE FOR UPWARD THRUST.

THRUST BLOCK DETAIL FOR SYSTEMS AT 150 PSI TEST PRESSURE OR LESS



FIRE HYDRANT ASSEMBLIES



SIZE	T	W	L
6"	8"	16"	16"
8"	8"	18"	18"
12"	10"	20"	20"
16"	12"	26"	26"
20"	14"	28"	28"

VALVE SUPPORT

N.T.S.

DTL-11
DTL-12

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

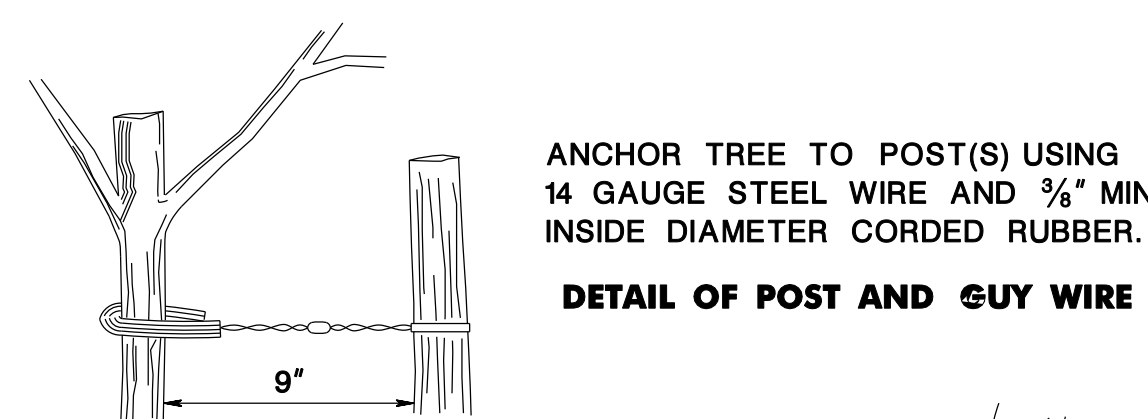
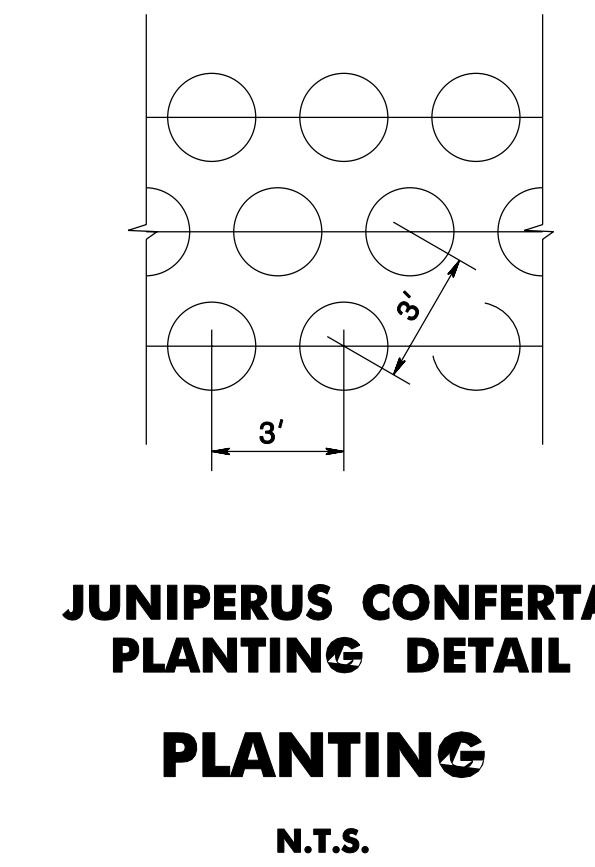
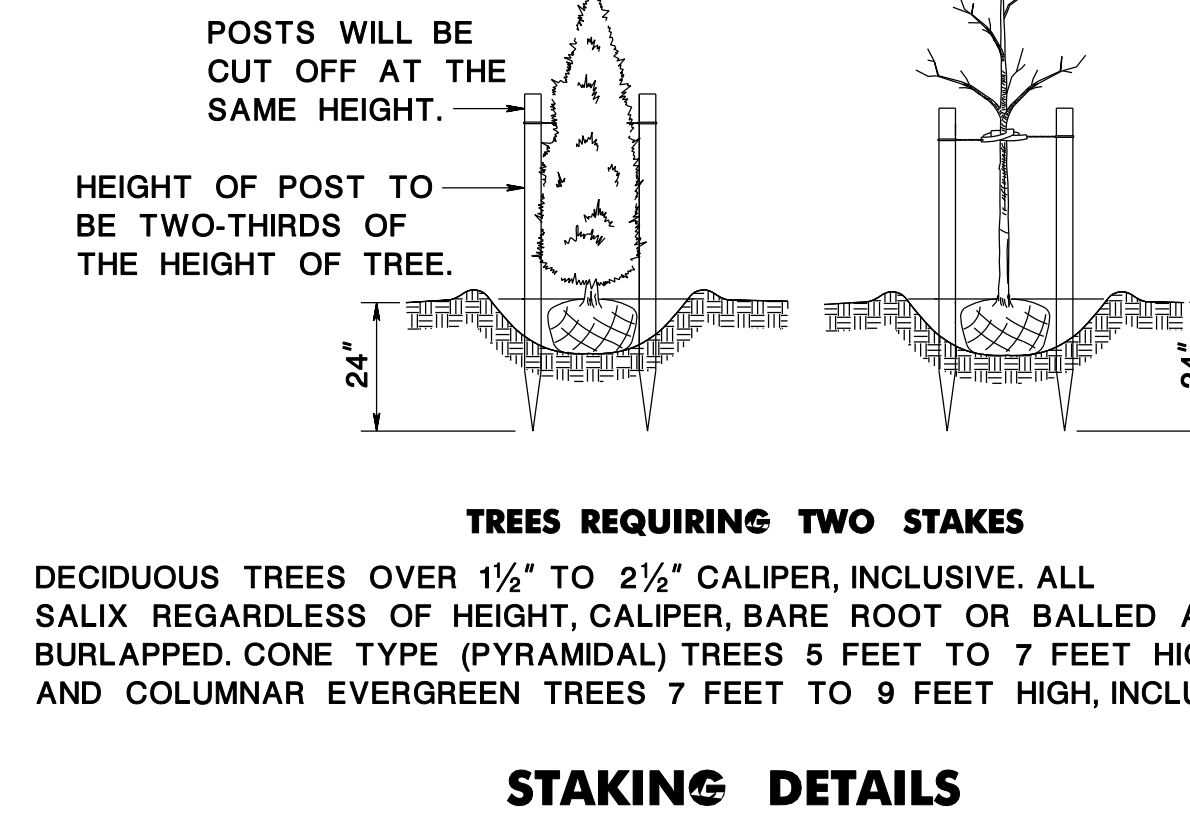
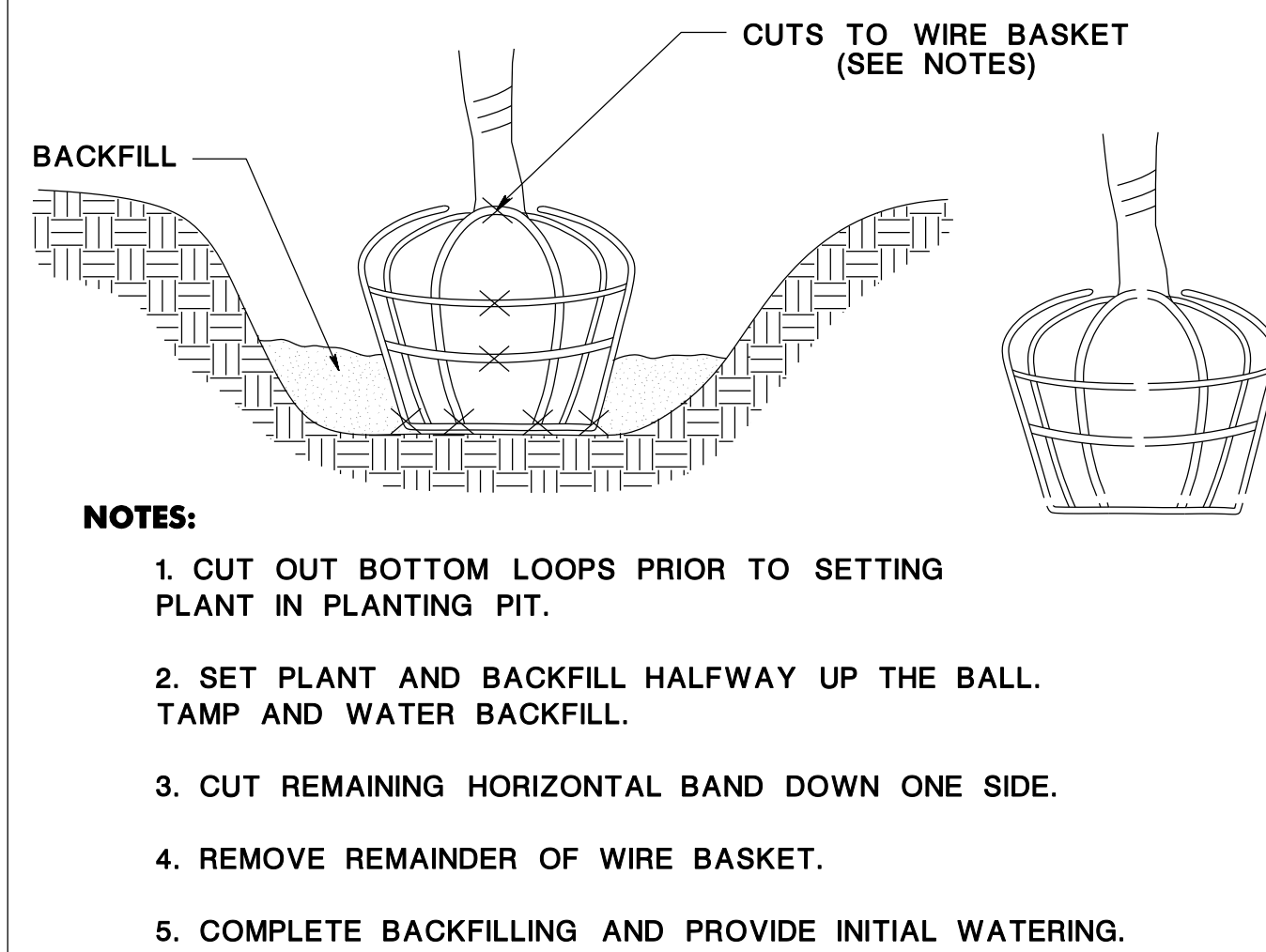
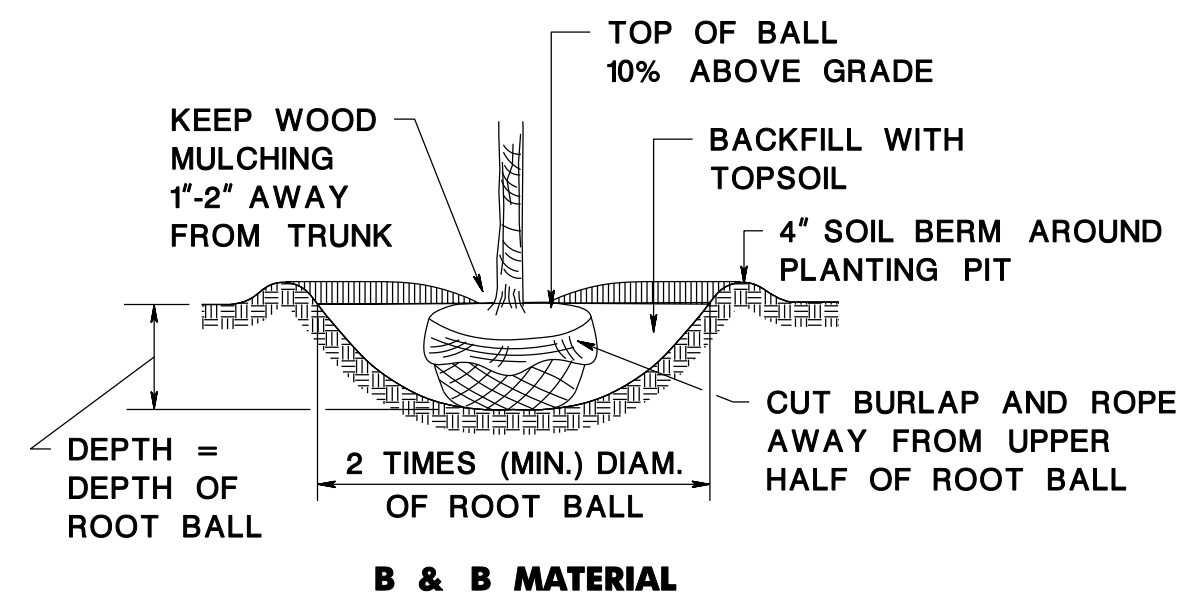
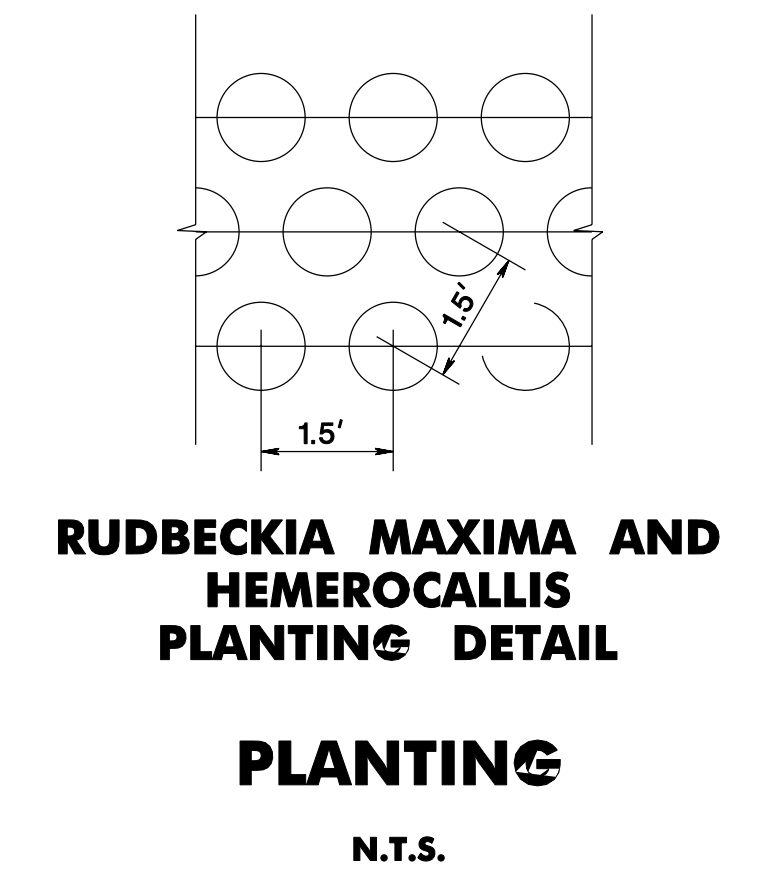
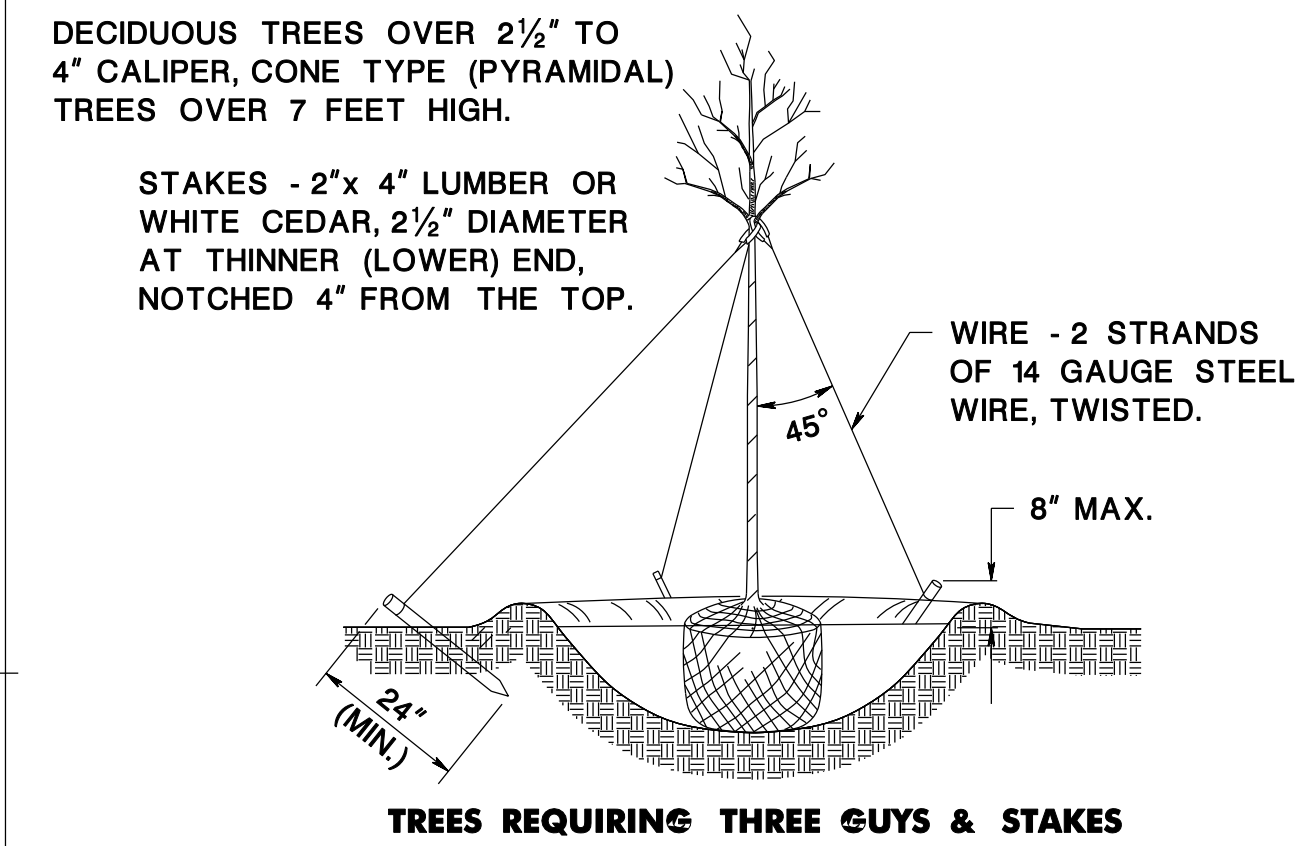
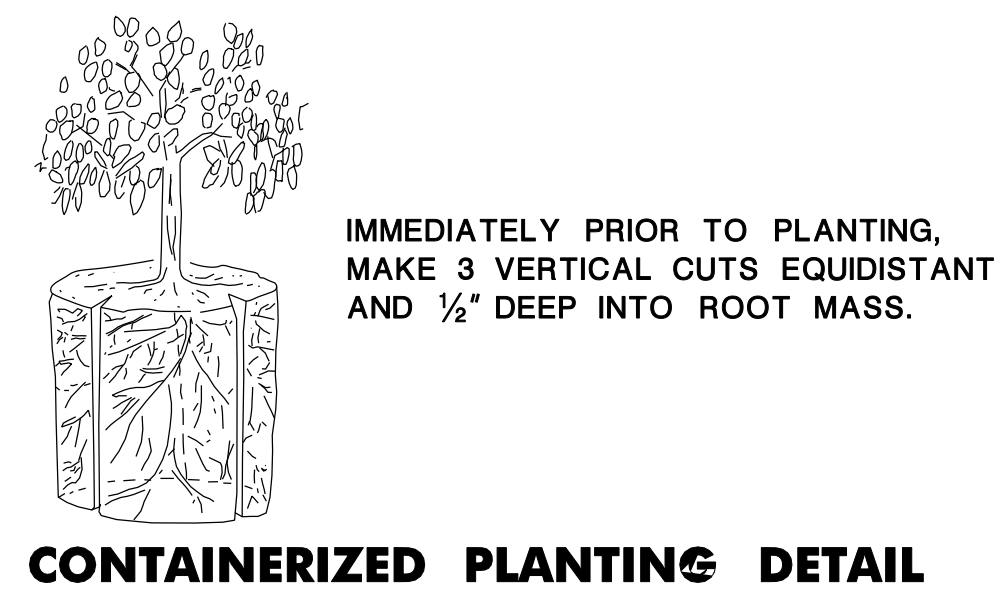
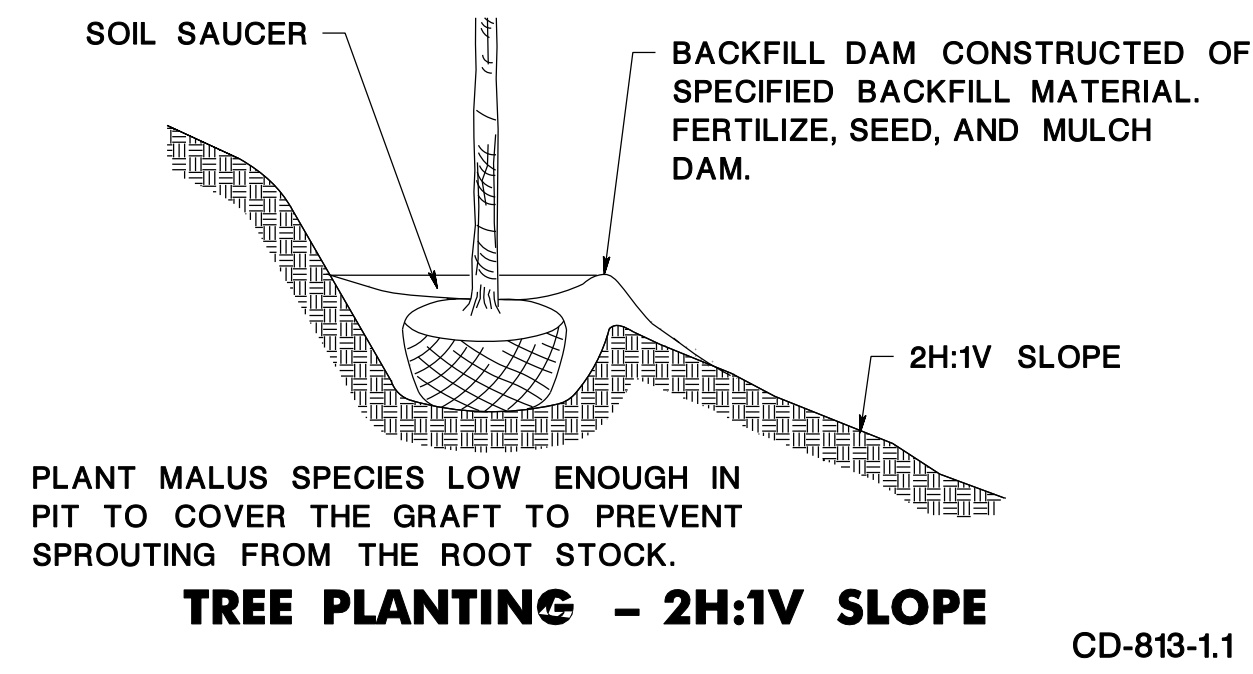
**ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370**

ARORA and ASSOCIATES, P.C.
PROFESSIONAL ASSOCIATION

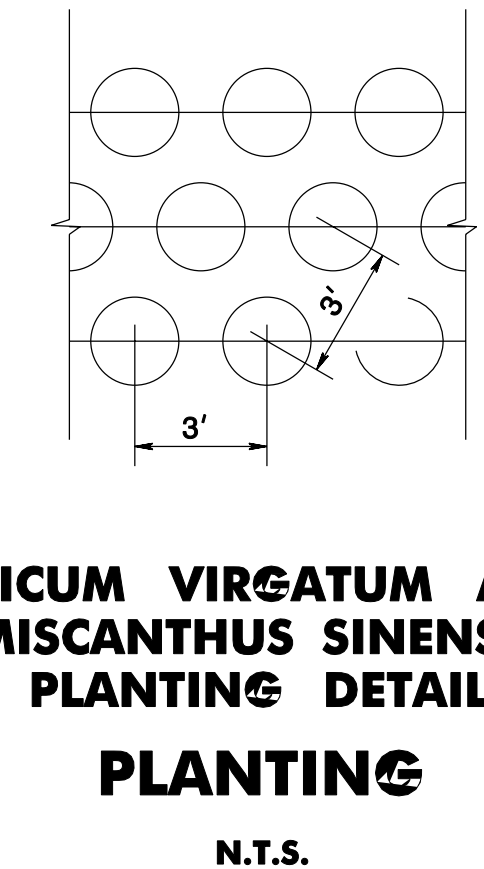
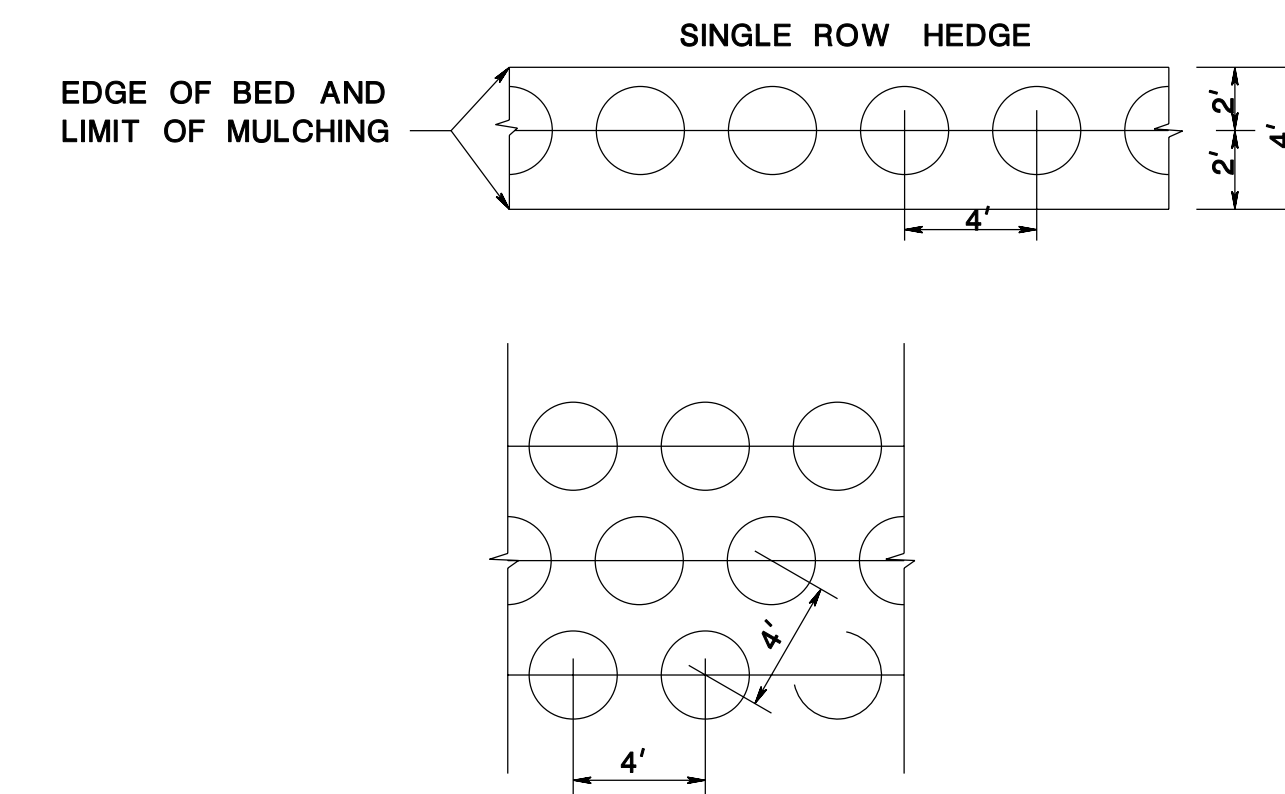
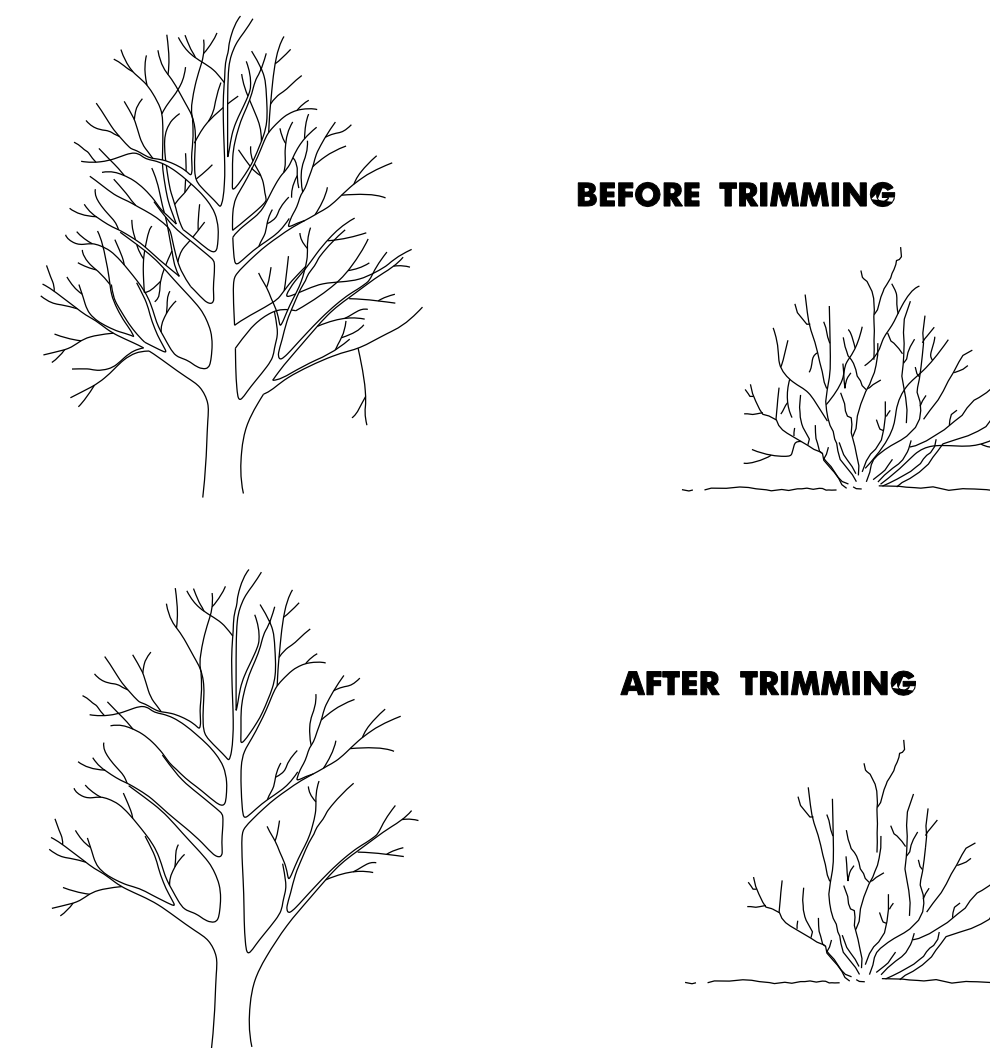
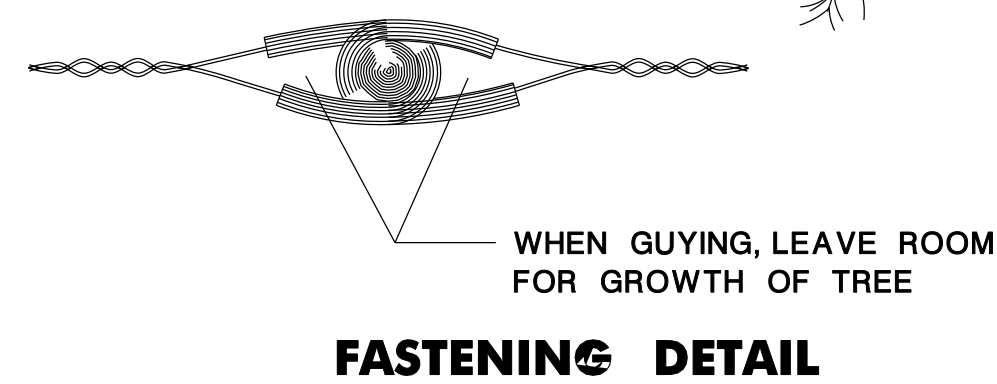
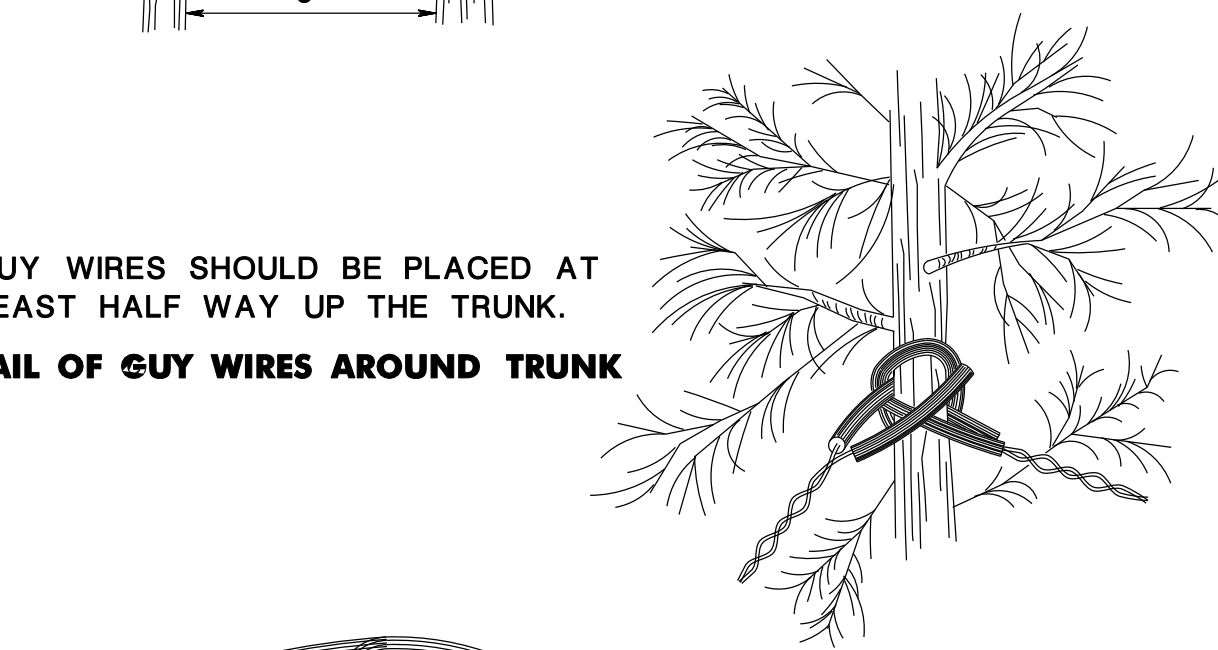
MICHAEL G. WRIGHT, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24E02963100

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Pen Table: \$PENTABLES
Design File: \$FILES



GUY WIRES SHOULD BE PLACED AT LEAST HALF WAY UP THE TRUNK.



NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

ROUTE U.S. 46 AT HOLLYWOOD AVENUE
CONTRACT NO. 053950370

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DTL-12
DTL-12