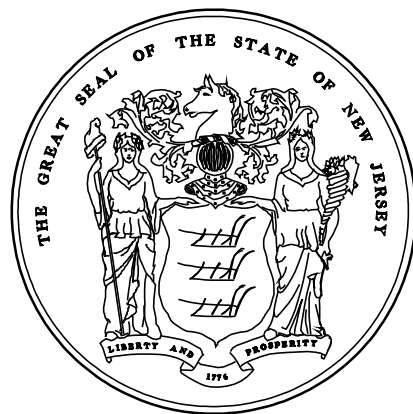
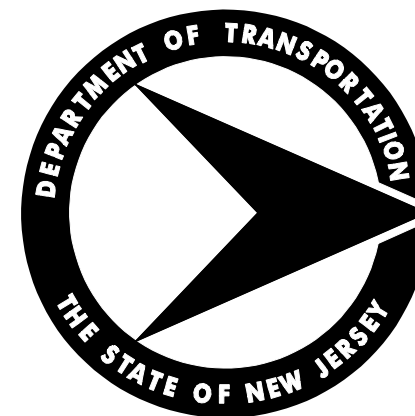




State of New Jersey
Department of Transportation



SAMPLE PLANS

2007

Sample Plans-2007

The Sample Plans illustrate presentation format and have been developed with the purpose of instituting uniformity in the presentation of Roadway and Bridge construction plans. It is not the intent of the Sample Plans to reproduce all presentation situations that are already adequately covered by the New Jersey Department of Transportation Design Manuals, Standard Specifications, Procedures Manual and other publications readily available to the Designer.

The various plan sheets of the Sample Plans have been compiled from an assortment of projects and should not be used by Designers for design purposes. The presentation and format of the plan sheets should be used as guidance in preparation of contract plans prior to their development. When used in conjunction with good engineering knowledge, the Sample Plans should enable the Designer to submit an acceptable set of contract plans.

The Sample Plans do not depict all possible circumstances that may be encountered in the design of the various sheets, nor do they depict all possible types of items that may be encountered on a particular 'type' of sheet. It is recognized that situations will occur where good engineering judgement dictates deviations from the presentation shown in the Sample Plans.

Though implementation of the presentation format is highly desirable, exemptions from the presentation format may be made by the Project Manager and approved by the Program Manager in conjunction with QA Team Leader. However, if the implementation would delay the project schedule or increase the project cost, the Designer shall contact the Department's Project Manager to determine how to proceed.

Item numbers and descriptions are shown for illustrative purposes only. Sheet numbers represent the numbering of the sample sheets and do not correspond to the actual numbers to be used for a project. The following commentary shall be used as a guide in conjunction with the sample plan sheets.

1.0 General

Plan sheets for contract sets of plans shall be standard 22" x 36" size sheets of 4 mils thick polyester film, such as Mylar or Herculene, which is matted on both sides and drafted in black ink. Plan sheets produced by CADD shall also be submitted on Mylar. Cross Section sheets, however, may be matted on one side and may be 3 mils thick. Electrical drawings shall also be matted on one side and shall be produced by CADD in accordance with Traffic Signal and Safety Standards. Adhesive backed reproduction film of any type (stick-ons) will not be permitted.

Due to the approximate half scale size of the Sample Plans, the standard element sizes shown have been increased for clarity purposes. Plan presentation should conform to the "on line" CADD standards and information available through the NJDOT, Design Services web site. Other sizes will be accepted as long as it is legible at a reduced scale and reasonably matches the standards.

A microfilm mark shall be shown on all plan sheets. This mark shall extend downward, perpendicular, 1/4" from the bottom border line at the center of the sheet. The weight of the line shall be the same as the border.

A split circle for the sheet number shall be shown in the lower right corner on all plan sheets. All plan sheets shall be numbered consecutively in the upper portion of the split circle beginning with Number 1 for the Key Sheet. The total number of sheets shall be indicated in the lower portion of the circle on the first and last sheets of the plans. Plan sheet numbers shall not be repeated with letter designations.

Cross-outs on plan sheets will not be permitted. If a revision requires deletion of information on the plan sheets, the information shall be removed from the drawing rather than crossed out.

A double reference numbering system, as specified under the headings of the various plan sheets, shall be established for each 'type of plan' in the contract set of plans. The following abbreviations and preferred order of plans shall be utilized for the double reference numbering:

1	EDQ	Estimate and Distribution of Quantities - Roadway
2	TS	Typical Sections
3	PSI	Plan Sheet Index
4	C	Construction Plans
5	EP	Environmental Plans & Soil Erosion & Sediment Control Plans
6	D	Drainage Plans
7	DTL	Construction Details
8	P	Profiles
9	T	Ties
10	G	Grades
11	TC	Traffic Control (and Staging Plans)
12	TSP	Traffic Signal Plans
13	E	Electrical Plans
14	HL	Highway Lighting Plans
15	ITS	Intelligent Transportation System Plans
16	SL	Sign Location Plans
17	TSS	Traffic Signing and Striping Plans
18	STD	Sign Text Detail
19	L	Landscape Plans
20	MS	Method of Cross Sections
21	X	Cross Sections
22	EQB	Estimate of Quantities - Bridge
23	B	Bridge Plans

As examples, the first Construction Plan sheet, of 20 total construction plan sheets, shall be labeled C-1 of C-20, the second C-2 of C-20, and the last construction plan sheet shall be labeled C-20 of C-20. Construction Plan sheets between these sheets shall be labeled consecutively, C-3, C-4, etc. The first Electrical Plan sheet, of six total electrical plan sheets, shall be labeled E-1 of E-6.

The remaining plan sheets shall be labeled consecutively in the same manner. Each 'type of plan' shall be labeled in accordance with the above listing. The location of the double reference number shall be in a box above the title block and used as part of the match line stationing as shown in this sample plan set.

Variations to the above abbreviations for combined plan sheets are acceptable. The double reference number would then be a combination of the individual plans (Example: D&L - Drainage and Landscaping Plans). The plan that appears first in the plan sheet listing shall be first in the abbreviation.

Federal blocks located in the upper right corner of the plan sheets shall show a Federal Project Number(s) when applicable. On 100% State funded projects, the Federal block shall remain on the plan sheet but shall remain blank.

All sheets, except Estimate-Distribution of Quantities, Estimate of Quantities-Bridge, Tie Sheets, Cross Sections, Construction Details and sheets with charts or text, shall show a graphic scale. The graphic scale shall be placed at the top center of each plan sheet or centered above the title block but the location should remain consistent throughout the construction set. Cross section sheets shall delineate scale either by appropriate numbers on the heavy vertical and horizontal lines or by a graphic scale.

2.0 Item Numbers

The item number consists of seven characters: first three numbers correspond to the specification section number; the following three numbers are sequential numbers from 001 to 999, and the suffix "M" or "P" designates if the item is either a measured quantity or a proposal quantity.

Item Numbers on all plan sheets to indicate proposed work, such as Construction Plans, Drainage Plans, etc. in **"TO BE CONSTRUCTED"** boxes and in the elliptical shaped bubbles. Provide Item numbers with the suffix "M" or "P" in **"TO BE CONSTRUCTED"** box. However, suffix "M" or "P" is not required in the elliptical shaped bubbles due to space constraints.

For more instructions on how to handle Item numbers, refer to the **CONSTRUCTION COST ESTIMATE GUIDELINES**.

3.0 KEY

The Key sheet shall include a Key Map indicating the location of the project. The Key Map shall be centered on the sheet and shall be drawn to a scale of about 1"=1000' to 1"=4000', except Local Highway projects which may be submitted at a smaller scale. Contours shall not be shown on the Map. The delineation of the proposed project shall be clearly indicated by **BEGIN PROJECT** and **END PROJECT**, with a Federal Project Number (Construction) when applicable, and all **STOPS** and **RESUMES** shall be noted and marked by stationing on the Key Map. To delineate **BEGIN PROJECT** and **END PROJECT**, provide the mainline *beginning* and *ending* station at the major construction work limits of the project. Mile marker references should also be included. Do not provide the **BEGIN PROJECT** or **END PROJECT** location at proposed signage, striping, related to traffic control items installed in advance of, or beyond the major construction work of the project. When the project involves more than one State Highway, provide a **BEGIN PROJECT** and **END PROJECT** for each State Highway.

The longitude and latitude for the mid-point of the project must be shown on the key map in the following format: DD° MM' SS" (with direction).

Definition of mid-point of project:

For a continuous project, it would be the actual mid-point.

For a non-continuous project, identify the mid-point as if the project were continuous.

For an intersection improvement, draw a circle around all the intersections and use the center of the circle as the mid-point.

For Statewide projects, use the geographical center of NJ, which is:

Longitude: 74° 38' 42" W

Latitude: 40° 11' 01" N

For Bridge projects, use the center of the entire project as the mid-point.

For multiple bridges, draw a circle around all the bridges and use the center of the circle as the mid-point.

A north arrow, station equations, names and locations of corporate lines, municipalities, counties, streets, structures, railroads, and waterways shall be clearly shown on the map.

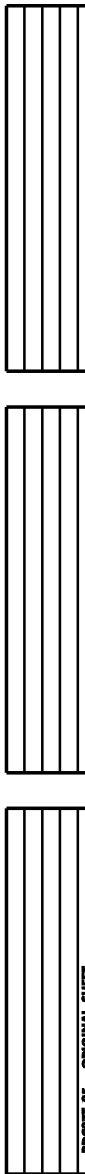
The Control Section number, when applicable, shall be shown above the right corner of the Key Map. The type of highway as obtained from the Bureau of Transportation Data Development shall be indicated below the left corner of the Map. A graphic scale for the Key Map, and the length of the project and length of the Federal project in linear feet and miles shall appear beneath the Map.

The Project Category abbreviation shall be identified on the key sheet for all projects (located at the left corner over the Key Map). The six categories of projects, followed by the accepted abbreviation, are shown below:

- Interstate New Construction or Reconstruction (I - NEW/RECON)
- Interstate Resurfacing, Restoration, and Rehabilitation (I - 3R)
- National Highway System New Construction or Reconstruction (NHS-NEW/RECON)
- National Highway System Resurfacing, Restoration, and Rehabilitation (NHS Non - 3R)
- National Highway System (Non-NHS)
- Major / Unusual

The following note shall appear below the index of sheets box. Designer shall indicate the year applicable to the project:

Standard Roadway Construction/Traffic Control/Bridge Construction Details Booklet dated (Month and Year) and Standard Electrical Details dated (Month and Year) are applicable to this project except for those details contained herein.



3.1 Utilities

All utilities located within the project limits shall be listed in the Utilities box in the upper left corner of the Key sheet regardless of utility involvement. Pole lines, gas mains, transmission lines, rail roads, etc. shall be noted. Electrical installations of the NJDOT (Traffic Signals and Lighting) shall also be listed.

3.2 Right of Way

When Right of Way is required for the project, the Route and Right of Way Section shall be shown below the right corner of the Key Map.

3.3 Proposed Structures

Bridges, walls, sign structures, temporary structures, noise barriers, culverts to be constructed and structures to be demolished as part of the project shall be listed in a box on the left hand side of the Key sheet. The listing shall include a description of the type of proposed structure(s) and a legend to denote the structure(s). Structure numbers shall also be included, if available. The location of the proposed structure(s) shall be indicated on the Key Map by use of the legend.

Bridge Sample Plans provide guidance on the proper presentation of projects that include multiple structure types; such as, bridge structures, sign support structures and retaining walls. A General Note format to specify the design and construction specifications, concrete strengths and type of superstructure material is provided. Other drawings present guidance on abutment, deck slab, substructure element and framing plan illustrations.

3.4 Design Traffic Data

The Design Traffic Data box shall be shown in the lower left portion of the Key sheet. Information to be included shall be as shown on the sample Key sheet and as described in the NJDOT Roadway Design Manual.

The present year to be shown shall be the anticipated date of construction. The future year for new construction and reconstruction projects shall be 20 years beyond the anticipated date of construction, and 10 years beyond the anticipated date of construction for resurfacing, restoration, and rehabilitation projects.

3.5 Index of Sheets

All sheets contained in the contract plans shall be listed in the Index of Sheets box provided in the upper right portion of the Key sheet. The listing of the sheets shall follow the order shown in the section titled "General" on Page 1 of these Sample Plans. When the project includes Bridge Plans, the Estimate of Quantities - Bridge sheet shall be included in the plans as shown on the listing included under General Information. If the number of contract plan sheets is large enough to require the sheets to be divided into multiple parts, the Index of Sheets box shall be modified to indicate the various parts as shown on the sample Key sheet. Generally, each part shall consist of approximately 150 sheets.

3.6 Consultant Signature

The name of the Designer shall appear in the lower left hand border of the sheet. The following statement shall be added to the Key sheet of all projects designed by Consultants:

"CHANGES MADE TO THESE PLANS SINCE SIGNATURE BY THE CONSULTANT MAY BE DETERMINED BY COMPARISON OF THE PLANS FILED AT THE DEPARTMENT WITH THOSE FILED AT THE OFFICE OF THE CONSULTANT".

(NAME OF CONSULTANT) (CERTIFICATE OF AUTHORIZATION NO.____ OR PROFESSIONAL ASSOCIATION)

(ENGINEER’S SIGNATURE) (DATE)

(ENGINEER’S NAME PRINTED)

(TYPE OF LICENSE AND NO.)

Each sheet in a Consultant designed set of plans, excluding plan sheets provided by the NJDOT and utility companies, shall have the name of the consultant (consulting firm) and shall also state "Certificate of Authorization No. ____" or Professional Association" as applicable, in the space adjacent to the name. In the space under "Engineer's name printed" state "New Jersey Professional Engineer License No. ____". Each consultant-designed sheet shall be signed and dated by the consultant in the space provided under the "name of the consultant", just prior to the designer's plans, specifications, and estimate submission. However, if the utility company provides the design, it is also responsible for providing its professional engineer’s signature.

3.7 Project Description Name

The titling of the Key Sheet shall include the following information and adhere to the format in the following example:

- Approved Project name
- Route and Contract Number (or local street name when applicable)
- Work Description (i.e. Grading, Paving, Sign Structures, etc.)
- Work Limits (i.e. from Riverdale Road to vicinity of South Main St.)

State of New Jersey Department of Transportation

PLANS OF

ROUTE 287

FROM SOUTH OF ROUTE 23 TO PATERSON-HAMBURG TURNPIKE

AND

ROUTE 23

FROM RIVERDALE ROAD TO COTLUSS ROAD

CONTRACT NO. 045961901

GRADING, PAVING, & STRUCTURES

BOROUGH OF RIVERDALE

MORRIS COUNTY

TOWNSHIPS OF MONTVILLE, KINNELON AND PEQUANNOCK

SCALES AS INDICATED

JULY 2007
(Month and Year project
will be advertised)

Projects will be identified by using a Route and a nine digit Contract Number. The criteria for developing the Contract Number are as follows:

The first three numbers represent the beginning milepost to the nearest mile and the remaining six numbers consist of the Universal Project Code (UPC). The UPC is established by the Bureau of Program Coordination when the project is created. The Program Manager establishes the Contract Number at the beginning of design development. Contract numbers must be developed for all projects.

When the project involves more than one State Highway, the beginning milepost will be determined from the following list:

1. Interstate Highway
2. U.S. Highway
3. State Highway

If the project involves highways with the same priority, the beginning milepost of the lower numbered route will be used. For projects involving statewide improvements, the milepost designation will be replaced with an "SWI" designation (ie. SWIxxxxxx).

The Contract Number for a project on a county or municipal route will be determined as noted above for State Highways. If more than one County Route is involved, the 500 Route Series will have precedence over the 600 Route Series. Should more than one route of the same series be involved, the beginning milepost on the lower numbered route will be used. If the route is not mileposted, the first three letters of the county will be substituted for the milepost designation (ie. Mercer - Merxxxxxx).

Once established, the Contract Number should not be changed, even if the beginning milepost of the project is revised due to a change in project scope.

A Department signature block shall be included in the lower right corner of the Key sheet as shown with the titles, Director Project Management and State Transportation Engineer.

For Local-Aid projects, the key sheet must bear the signature of the County Engineer, or County Representative or Municipal Engineer, as applicable.

4.0 Title Blocks

Roadway Plans:

In the lower right hand corner, a title block shall be provided to include Consultant information as shown below. The title blocks shall be applicable for all sheets except Key Sheet and EDQ sheets.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE

CONTRACT NO.

(NAME OF CONSULTANT)

(CERTIFICATION OF AUTHORIZATION NO. OR PROFESSIONAL ASSOCIATION)

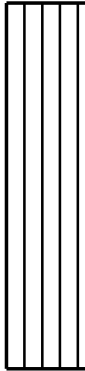
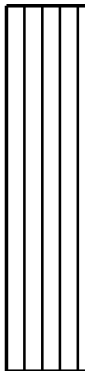
(ENGINEER'S SIGNATURE) (DATE)

(ENGINEER'S NAME PRINTED)

(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

#

When a project involves work that has been prepared by a Subconsultant and/or Land Surveyor; Subconsultant, Land Surveyor and the Consultant, all must sign the plan sheets that have been developed by the Subconsultant and Land Surveyor. The Subconsultant and Land Surveyor title block shall appear adjacent to the Consultant title block as shown below.



ENCLOSURE - ORIGINAL 4/17/17

5.2 Contract Quantity

Add all plan sheet quantities, and the IWD quantity. Enter the resulting number under the column "Contract Quantity". However, the quantities for the following Items must be provided under "Contract Quantities" column only. (Do not provide quantities for these Items under plan sheet quantities).

- All Pavement Reflectors Items
- All Raised Pavement Markers (RPM) Items
- Flexible Delineators, Ground Mounted
- Rumble Strips

5.3 If and Where Directed (IWD) Quantity

Provide IWD quantities for the following Items only unless the Department SME concurs with the inclusion of other Items that have not been designated as such. Round off all IWD quantities to the nearest whole numbers and do not show as plan sheet quantities.

- Soil Erosion and Sediment Control and Water Quality Control Items. Specify in the Special Provisions if the provided Items are to remain after the Completion.
- Traffic Control Items.
Specify in the Special Provisions if the provided Items are to remain after the Completion.
- Prime Coat
- Tack Coat / Tack Coat 64-22
- Construction Driveway
- Excavation, Test Pit
- Traffic Stripes, Long Life, Epoxy Resin (round off quantities to nearest ten)
- Traffic Markings, Thermoplastic
- HMA Patch
- All Concrete Pavement Rehabilitation (CPR) Items
- Sealing of Cracks in HMA Surface Course
- Sawing and Sealing Joints in HMA Overlay

6.0 Typical Section Sheets

Typical sections need only be shown where roadway conditions are 'typical' or representative of the project. It is not necessary to show a separate typical section to delineate minor variations from the basic typical and transition area, however, whenever an area is not covered by a typical section, clearly show pavement materials, thicknesses, and grades elsewhere on the plans.

The typical sections shall show all the existing and proposed roadway conditions. The proposed resurfacing and/or widening shall be superimposed over the existing conditions.

The proposed typical sections shall agree with the approved pavement recommendation issued or approved by the Bureau of Pavement & Drainage Management and Technology.

The following features shall be shown for each typical section:

1. Profile control, baseline and survey line
2. Limiting stations, or road names
3. Type of proposed and existing pavement with thicknesses, subbases, etc.
4. Topsoiling, Fertilizing and Seeding, or Turf Repair Strips with their respective limits
5. Slopes for various heights of fill and cut
6. Lane, shoulder, and sidewalk widths with cross slopes shown
7. Limits in rock cuts, unsuitable material, or I-11 Backfill
8. Slope limits defined
9. Vertical curb and barrier curb sizes with curb reveal dimensions
10. Proposed and existing Guide Rail and fence location
11. Indicate rollover on superelevated sections
12. R.O.W. lines (existing and proposed)
13. Crossover Crown Line

Structures including Noise Barriers, Walls, Piers, Abutments, Overhead Sign Structures, Utility poles shall not be shown on the typical sections.

When ramp or auxiliary road profiles are included in the plans, their design speed (V) shall be indicated on their typical sections.

A Legend of Materials Box with the proposed Item Numbers shall be shown on each Typical Section sheet. The Item Numbers shall be used as construct notes or to denote proposed items and the relative location where the work is to be performed on the typical section.

7.0 Plan Sheet Index

This sheet shall show the layout of plan sheets with existing and proposed conditions and shall be drawn to a scale of 1"=200'. A Plan Sheet Index covering the entire length of project shall be included in the plans when interchanges, ramps, and intersections are involved. Soil borings, when applicable, shall be shown on these sheets by use of a boring symbol and number. When a Plan Sheet Index is not included in the plans, borings shall be shown on the Construction Plans. Plan sheets shall be overlapped 1 inch minimum or match lines may be used for the layout.

For projects with multiple funding sources (more than one Federal Project Number or cost sharing involvement), the location limits for each funding shall be clearly indicated on the Plan Sheet Index with station to station limits. If a Federal Project Number or category is provided exclusively for landscaping items, bridge items, etc., and applicable throughout the project or for a specific portion of the project, a plan sheet by plan sheet breakout shall not be required, except that a note indicating the designated limits and appropriate funding shall be included.

A north arrow and graphic scale shall be provided on all sheets.

The double reference numbering system designated for the project plan sheets shall be included on the Plan Sheet Index. Only sheets with proposed work shall be referenced.

8.0 Construction Plan Sheets

The sample Construction Plan sheets are provided as a basic standard format for 'typical' construction plan sheets. In almost all cases, this format can be adhered to with proper planning. The scale to be used for roadway construction plans is generally 1"=30'.

General comments pertaining to the Construction Plan sheets are as follows:

- (1) North arrow, graphic scale, municipality and county shall be shown on all sheets.
- (2) The existing topography for 500 feet before the beginning and beyond the end of the project shall be shown. For projects involving local roads, this distance may be reduced, but to no less than 100 feet.
- (3) Stationed BEGIN and END OF PROJECT shall be noted for State and Federal projects. All project STOPS and RESUMES shall be noted and stationed with topography shown 500 feet beyond the STOP and 500 feet before the RESUME. On Federal projects with multiple funding sources, funding limits shall be noted with stations.
- (4) All existing topography shall be shown with thin lines, proposed with thicker lines and lettered as shown in this sample set. Screened drawings may be used when the proposed information on the plan needs to stand out from the other proposed line work. Plans such as Drainage Plans, Landscape Plans, and Signing and Striping Plans are examples of acceptable plan types for screening.
- (5) Baselines, survey lines, etc. shall be labeled with stations at 100 foot intervals. Station equations shall be noted where required. Baselines of side roads and streets must be provided with sufficient information for complete layout.

An equation should be shown, if required, on the first construction plan sheet which shows how the new survey baseline ties into the old survey.

- (6) When the same stationing appears on more than one baseline, the baselines shall be designated A, B, etc. Westbound, Eastbound, etc. baselines may be designated on dual highways. All stationing shall be shown in the same direction. When practical, it is desired for proposed ramps to be stationed in the direction of travel.
- (7) The Standard Legend and General Notes shall be on the first construction plan sheet. If additional symbols are required for the project, they shall be incorporated into the Standard Legend. No topography is to be shown on this sheet.
- (8) Topography shall not be shown beyond match lines. Match lines shall be stationed with the full station number. Double reference sheet numbers shall also be shown as discussed under General comments.
- (9) Each plan sheet shall include a TO BE CONSTRUCTED box. Plan sheets without proposed work shall not be included in the contract set except as required by note No. 2.
- (10) Type of pavement for all existing roads shall be noted.
- (11) Lane widths for all proposed pavements shall be shown at the match line on all plan sheets, and at changes of lane widths.
- (12) R.O.W. lines, limits of NO ACCESS lines and existing and proposed easements, except for Slope, Temporary Site Mitigation Work and Temporary Site Alternative Access easements, shall be noted.
- (13) Bench marks must be shown at approximate 400 to 600 foot spacing for vertical control. A description and elevation shall appear in the lower left hand corner of the sheet. Bench mark elevations shall be shown to 0.001 foot accuracy.
- (14) Quantity totals from construction notes shall appear in TO BE CONSTRUCTED boxes. Individual construct notes and totals require back-up calculations which shall be bound and submitted for review with the plans. The calculations shall be complete to cover all plan quantities.

All item quantities, except permanent signs, shall be rounded up to whole numbers.

- (15) Projects with more than one funding source shall utilize the format shown on sample construction sheet C-3. Separate columns shall be set for each funding category. Designers shall break-out quantities for items which fall within designated funding limits and provide quantity break-outs in the appropriate columns. This format shall be used only when there is more than one funding indicated on the plan sheet.

If the project has multiple funding and a specific funding is applicable throughout the project (for example, landscape items), it shall not be necessary to show a breakout of quantities for this funding on the plan sheets. A general note to this effect shall be made on the Plan Sheet Index.

- (16) Proposed construction shall be denoted with construction notes consisting of the item number placed in an elliptical symbol along with the item quantity and unit designation. TO BE CONSTRUCTED boxes shall conform to those shown on these sample sheets with items appearing in numeric order.

- (17) Presentation of Alternate Items shall be as shown in these Sample Plans sheet No: 2. When used as a construct note or to denote proposed items of work, the alternate items shall be placed in connected square symbols. In TO BE CONSTRUCTED boxes, alternate items shall be kept together with headings as indicated under the Estimate-Distribution of Quantities sheet.
- (18) All existing drainage structures shall be shown. Type and size of existing pipes and structures shall be labeled, flow direction (arrow) and existing invert elevations shall be shown when drainage is affected by proposed work.
- (19) Proposed drainage may be shown on the Construction Plans except when drainage construction is extensive or there is a need to enhance clarity on Construction Plans. In these instances, separate Drainage Plans shall be considered. In either case, proposed drainage shall be shown with:
- type of proposed structure noted (Inlet Type E, Inlet Type D-1, Manholes, etc.
 - proposed grate and invert elevations (except as noted below)
 - or depth of proposed structure clearly indicated
 - proposed flow direction with an arrow
 - type of proposed pipe (R.C..P., C.M.P., etc)
 - length of proposed pipe
 - proposed high and low points indicated (by arrow symbol)

The following shall also apply:

When separate Drainage Plans are included in the set of plans, the Construction Plan must show the location and type of the proposed drainage structure along with the proposed pipe. Invert and grate or rim elevations need not be shown on the Construction Plans.

When Grade Sheets are included in the set of plans, the proposed grate and rim elevations shall be shown on the Grade Sheets, therefore, grate or rim elevations need not be repeated on the Construction or Drainage Plans.

- (20) Begin and end station limits of various size proposed curbs (vertical and barrier) and their transition lengths shall be noted.
- (21) Stations shall be noted for Limits of Paving, Milling, Joint Removal, and Removal of Pavement.
- (22) Where driveways are proposed, the 'type' of existing driveway shall be noted (gravel, HMA, concrete, etc.) along with the proposed width dimensions and limits of paving. Proposed driveways shall conform to the State Highway Access Management Code. All existing driveways shall be shown.
- (23) Designers shall include Construction Details for transitioning proposed pavement to existing pavement, details for transitions at bridge decks, details for maintaining existing vertical clearances at overpasses and any additional transition details required for milled areas.

- (24) Existing monuments within project limits must be shown. Monuments within the traveled way shall be relocated or shall be enclosed in a monument box. Proposed Monuments shall be located by station and offset.
- (25) If Drainage structures are to be cleaned, the depth of the Drainage structures shall be shown. If pipes are to be cleaned, diameter and the length of pipe to be cleaned shall be noted.
- (26) Drainage structures which are non-standard shall be so noted on the plans. A detail for such structure shall be provided in the plan set.
- (27) Baseline station and offset for proposed guide rail locations, including end treatments and all breakpoints along the guide rail, shall be provided.
- (28) All above and below ground existing utility facilities located within the project limits shall be noted by type, size and location. Aerial pole line facilities shall be limited to the indication of poles and their corresponding pole numbers. All proposed poles and utility facilities relocated within the project limits shall be located on the plans with types and sizes shown.

When separate Utility Plans are included in the set of plans, the construction plans shall provide all existing utility facilities and poles with type and size. Existing and proposed facilities shall be shown on the Utility Plans as indicated above.

- (29) When work is to be performed "by others", Designers shall specify who will be performing the work. (For example: by Verizon, by Public Service Electric and Gas, by Sunshine Developers, etc.)
- (30) At locations showing riprap, the area of the proposed riprap shall be fully dimensioned, the thickness indicated and the calculated stone size noted at each location.
- (31) Soil Borings, when required, shall be shown on the Construction Plans for small projects that do not require a Plan Sheet Index.
- (32) On plan sheets where space is limited and enhanced clarity is needed, in place of construct notes, a separate quantity box may be used to denote items of work. The box shall show Item Numbers, stations and offsets of work to be performed, and item quantities. Typical use of this box may be when numerous driveway items are proposed on a sheet or where joint removal is required. The Designer shall also consider separating specific aspects of the design such as drainage or utilities onto separate plan sets to enhance the clarity of the information being presented. The creation of separate plans shall be discussed with the Project Manager prior to the Preliminary Design Submission.
- (33) When proposing cross drain replacement by trenching, Designers must indicate the appropriate standard construction detail to be used at its relative location on the construction plans. Specifications provide that payment for pipe items include the cost of excavating the pipe trench. When constructing cross drains in existing concrete pavement, appropriate items for excavating concrete pavement and for replacing the existing pavement surface must be indicated separately. Complete information shall be provided to determine the depth of the pipe trench, especially in areas not covered by cross sections.

- (34) When the item Demolition of Buildings is proposed, the following additional information shall be shown:
- buildings to be demolished clearly designated by heavy solid outlines and shown as per legend symbol
 - house numbers
 - R.O.W. parcel numbers
 - demolition numbers
 - building type (frame dwelling, brick, etc.)
 - number of floors
 - basement noted where applicable
 - additional buildings on the property (garages, sheds, etc.) to be removed shall be clearly indicated
- (35) When proposing Concrete pavements, show the location of the transverse expansion joints and irregular slabs at critical locations. The location of the slabs shall be shown at mainline intersections with ramps and crossroads, the approach and exit sides of bridges and other locations where irregular slab shapes or sizes are required.
- (36) Some Standard Construction Detail Sheets may indicate more than one "treatment" or "type" of construction for an item of work; examples are: Construction Driveway, Curb Ramps, and Guide Rail Attachments at Bridges. When proposing such items of work, Designer's must indicate the "type" to be constructed on the Construction Plan sheet. This may be shown by indicating the "type" below the item number, or when several "types" are to be constructed on a plan sheet, a box may be provided with Item number, baseline location and offset and "type" to be constructed.
- (37) Location of existing and proposed curb ramps must be shown at intersections. Traffic signals, lighting, guide rail in the vicinity of the ramps, must be shown with every effort made to avoid locating the proposed work within limits of curb ramps.
- (38) Show actual Milling depths (i.e. 1" or 4") on plan sheets, but used item that has correct range of depth (i. e. 0-3, or 3-6).

9.0 Environmental and Soil Erosion & Sediment Control Plans

The purpose of the Environmental and Soil Erosion & Sediment Control Plans is to show the location of soil erosion and sediment control items, and to identify sensitive environmental areas to be avoided or where activities are restricted, such as wetlands, floodplains, regulated streams, parklands, historic sites, conservation lands, endangered species habitats, contaminated sites and any other environmentally sensitive areas that pertain to the project.

Contact the Bureau of Landscape Architecture and Environmental Solutions and the Project Manager to determine whether there is a need to identify environmentally sensitive areas on the project. If there are no sensitive areas or permits to be identified, then show the Soil Erosion and Sediment Control items of work on sheets labeled as Soil Erosion and Sediment Control Plans. Other plan sheets may be used, such as Traffic Control and Staging Plans, with permission, for small projects with few plan sheets.

In general, the plan scale should not be smaller than 1"=60' provided the installation of erosion and sedimentation control devices can be clearly shown. In addition, when there are extensive environmentally sensitive areas on a project, a small scale Environmental Plan (typically 1"=100' or 1"=200') may be included to clearly identify those areas.

If environmentally sensitive areas must be identified, but there is no need for soil erosion and sediment control measures, provide a 1"=100' or 1"=200' scale Environmental Plan.

The first sheet of the Environmental and Soil Erosion & Sediment Control Plans includes the list of environmental commitments (including those made to the State Historic Preservation Office, other agencies, or local governments), and permits including date of issue, date of expiration and conditions (if any). Also, if symbols are used to identify environmentally sensitive areas, a legend.

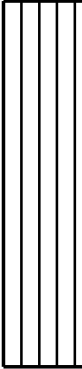
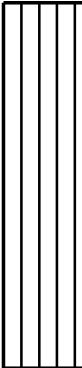
Clearly indicate on the plans the areas where the Contractor is not permitted to perform work, locate a concrete washout facility, store materials or enter with construction equipment. Also, note constraints to any construction activities (e.g., town's "Founder's Day" festival or night work that will not be permitted adjacent to a hospital, etc.) or other specific Department commitments.

Depict caution fence locations on the plans to delineate areas where the contractor is not permitted. Caution fence may be used alone to prevent encroachment into an environmentally sensitive area (such as a wetland, historic site, etc.) where potential sedimentation is not an issue. In areas where both silt fence and caution fence are warranted, use heavy duty silt fence, orange in place of the combined rows of fencing (e.g., to protect a wetland from sedimentation and encroachment by the contractor).

Design silt fences (regular silt fence, heavy duty silt fence, black and heavy duty silt fence, orange) according to anticipated soil loss, topography, and adjacent sensitive areas. Clearly show the limits of each type of silt fence on the plans.

In reference to the concrete washout system in Section 158 of the Standard Specifications for Road and Bridge Construction, the distance for the placement of the concrete washout facility (ies) from environmentally sensitive areas may need to be greater than 50 feet, depending on project specific conditions/restrictions, such as the presence of exceptional value wetlands or Category One Waters, as designated by NJDEP, which have larger buffer zone requirements. More than one facility may be necessary depending on ease of access and the amount of concrete being poured at one time.

Provide at least 2 oil-only emergency spill kits with each kit capable of cleaning up at least 95 gallons of spill.



10.0 Profile Sheets

The existing mainline profile line shall be shown for 500 feet before the start and 500 feet beyond the proposed work. On local road projects, this distance may be reduced, but to no less than 100 feet. The existing ground line and the proposed finished grade line shall be plotted with station elevations shown at 50 feet intervals. All elevations shall be shown in feet.

The following items shall be labeled on the profiles:

- Profile Identification (Ramp A, Rt. 295 S.B., etc.)
- Datum
- Vertical Curve Limits
- P.V.C., P.V.I., P.V.T.
- L - Length of Vertical Curve
- E - Difference between P.V.I. Elevations and Vertical Curve Elevations at the P.V.I. Stations
- High and Low Points with Stations and Elevations
- Culvert and Invert Elevations
- Limits of Borrow Excavation Bridge Foundation and Porous Fill
- Slope in %
- Minimum Vertical Clearances at Bridges and Structures
- Ramp Design Speeds

The definition of "E" shall be shown on the first Profile Sheet.

11.0 Tie Sheets

All control points must be tied to a baseline. Ties shall be stationed and offset and may be shown on the Construction Plans if not too congested, but preferably on a separate Tie sheet. The baseline designation shall be clearly labeled and identified. A Legend may be required to explain the designation. Assumed baselines shall be designated 'survey lines' and shall be used only if extensive investigation does not disclose a baseline.

Notes on the first Tie Sheet must state the following:

- Horizontal datum
- Vertical datum
- Field book reference

11.1 Horizontal and Vertical Datum

The Survey Datum information shall be included as shown on the first sample Tie Sheet of these Sample Plans.

Survey datums should be referenced to the recommended datums as described in the current version of the NJDOT Survey Manual. When elevations are based on other survey datums, the appropriate datum information must be provided.

All projects involving new alignment or major reconstruction shall include coordinates for all control points tied to the New Jersey Plane Coordinate System. Tie sheets shall provide a listing of the Geodetic Control Monuments used for the project. Notes shall also state the date of the recovery of the monument. In addition, any other monuments used to establish the control line shall be listed and shown on the tie sheets. Existing Geodetic Control Points and previous project baseline monuments or control points shall be used where possible and made part of the control network.

Where a field survey line differs from a project baseline, control ties and connections from the survey line to all P.C.'s, P.I.'s, and P.T.'s shall be shown.

A description of the control shall be provided with a detailed sketch showing distances and directions to locations (or reference) points. All control points shall have a minimum of three location (reference) marks.

Tie sheets shall also show bench mark locations from the survey line or baseline. In addition, a note shall be added to indicate whether the bench mark is located in an area that will be affected by construction activity. The note may specify or recommend relocating the bench mark, prior to construction activity.

A note shall be added to the Tie sheets when affected monuments need to be preserved.

12.0 Grade Sheets

Proposed grades and cross slopes shall be shown at 25 feet intervals in transition area and areas where finished grades deviate from the typical sections. Grades shall also be shown in areas that require additional clarification. Contours may be shown for infield areas that are not fully covered by cross sections.

Grade Sheets shall include the following:

- proposed high and low points
- type of proposed drainage structure
- proposed grate or rim elevations
- North arrow
- graphic scale

When Grade Sheets are not included in the Plans, the grate and rim elevations shall be shown on the Construction or Drainage Plans. (See item No. 19 under the "Construction Plan Sheet" heading for additional information).

13.0 Traffic Control Plan Sheets

The purpose of Traffic Control Plans is to provide guidance and establish procedures to assure that adequate consideration of safety is given to motorists, pedestrians, and construction workers during the construction project.

Sufficient data must be provided to the Contractor that will enable the Contractor to construct the project as designated for the full range of worksite situations. The proper and adequate placement of highway signs, pavement markings, barricades, and other traffic control devices shall be in accordance with the current Standard Traffic Control Details, Manual on Uniform Traffic Control Devices (MUTCD), Section 14 of the NJDOT Design Manual, Roadway and Standard Specifications for Road and Bridge Construction.

The first two sheets of the Traffic Control Plans should be Standard Traffic Control Detail sheets TCD-1 and TCD-2 appropriately modified for individual project needs. Designers shall delete notes from these sheets which are not applicable to the project. Crossing out of notes is not acceptable. TC-1 in this set of Sample Plans depicts a typical treatment of selecting project specific information to be provided.

Traffic Control Plan Sheet TC-1 shall also contain project specific notes that are not covered by the General Notes on the Traffic Control Details in the Standard Detail Booklet. The notes shall include, but not be limited to: specific restrictions placed on travel lanes, duration of closures, hours when work may be performed, number of lanes of unobstructed traffic to be maintained in each direction, allowable minimum widths of traveled way, number of lanes to be open to traffic, diversionary routes with any restrictions, and traffic lanes or patterns to be maintained during construction for local roads affected by construction.

In order to estimate the required quantity of Construction signs in square feet, Designers should prepare a summary of signs for the project. This summary of construction signs should be shown in a table, and included on the first sheet of the Traffic Control Plans. An example of a completed table listing the Sign Designation, quantity and area in square feet is shown on TC-1 of the Sample Plans. The total quantity of construction signs in square feet should be shown on the Estimate-Distribution of Quantities (EDQ) sheet. On EDQ sheet, the total quantity of signs in square feet should be indicated as "If and Where Directed" items.

For quantity purposes, the If and Where Directed number of units or linear feet of traffic control devices and signs shall be the maximum quantity required to be in use at any one time. For purposes of indicating speed limits or speed reductions through the construction zone, 35 square feet of additional **construction signs** shall be provided.

Additional Traffic Control Plans shall be included to show plan views of project specific work sites when these locations are not adequately covered by the Standard Traffic Control Details or where design features of traffic control devices (such as the type of precast construction barrier) or temporary pavement markings need to be indicated. The scale of the Traffic Control Plans shall be selected so that the optimum amount of information is shown on a minimum number of plan sheets. Construction Details shall be provided for traffic control devices not adequately covered by Standard Construction Details. Separate details showing placement of Crash Cushions, Inertial Barrier System, _____, Modules shall be provided and designated by location when more than one configuration of modules are required for the project. Also, any construction sign not depicted on the Standard Construction Details shall be shown in detail.

All plan sheets except Traffic Control Details shall show a graphic scale and north arrow.

14.0 Traffic Control and Staging Plans

All comments pertaining to Traffic Control Plans shall remain valid for Traffic Control and Staging Plans.

Traffic Control and Staging Plans shall be utilized when a staging or sequence of construction needs to be specified. These plans should not be utilized for projects involving lane closures without sequence of work (such as simple resurfacing or electrical installations).

Notes pertaining to the various stages of construction shall be included on the Traffic Control and Staging Plans. The notes shall thoroughly describe each phase of construction in the sequence to be performed, including the establishment and removal of temporary traffic control items.

The Legend on Traffic Control and Staging Plan Sheet TC-1 shall be modified to differentiate work to be performed during each stage of construction, and work already completed during previous stages.

When temporary pavement areas are required, a Typical Section shall be provided. Temporary pavement to be used for Traffic Control shall be shown with plan sheet quantities. Item Numbers with construct quantities and a **TO BE CONSTRUCTED** box shall be shown on the Traffic Control and Staging Plans when temporary pavement is to be constructed. Items for the removal of temporary pavement and restoration to original when required must be provided.

15.0 Electrical Plans

The purpose of the Electrical Plans is to provide guidance as to the preparation of the electrical engineering aspects of a complete traffic signal installation including traffic signal timing and intersection lighting. Each traffic signal design requires Electrical Plans.

The Electrical Plan for the traffic signal is used for presenting the electrical design of the traffic signal, including all underground and above ground elements. The plan is to include the block wiring diagram, loop detector schedule and to be constructed items. An additional sheet can be used to show sketches that require more detail in order to facilitate construction. A separate sheet showing the traffic signal timing and operation is required to facilitate its implementation in the field.

The Title block for each Electrical Plan should be completed by the designer, as shown in the Sample Plans.

All Electrical Plans are to be prepared according to current Department and Traffic Signal and Safety Engineering CADD standards. These standards can be obtained from the Department's web site or upon written request to the Manager of Traffic Signal and Safety Engineering.

16.0 Traffic Signal Plans

The purpose of the Traffic Signal Plans is to provide guidance as to the preparation of the traffic engineering aspects of a complete traffic signal installation. Each traffic signal design requires Traffic Signal Plans.

The Traffic Signal Plan is the traffic engineering plan that includes all the above ground traffic signal equipment, the regulatory, warning and mast arm signing that pertain to the operation of the traffic signal, and the overall areas of detection. The Traffic Signal Plan is necessary because upon activation of the traffic signal, it is submitted for final approval and becomes the Department's legal document for the operation of the signal and its associated signing and striping. Because the final plan must be signed by the Manager of Traffic Signal and Safety Engineering (TSSE) the title block shown on this plan is to be used for all Traffic Signal Plans.

The Title block for each Traffic Signal Plan should be completed by the designer, as shown in the Sample Plans.

All Traffic Signal Plans are to be prepared according to current Department and Traffic Signal and Safety Engineering CADD standards. These standards can be obtained from the Department's web site or upon written request to the Manager of Traffic Signal and Safety Engineering.

17.0 Highway Lighting Plans

The purpose of the Highway Lighting Plans is to present the lighting design using approved Department lighting design software. The Highway Lighting Plans are used to present the underground and above ground electrical elements in the designated nomenclature and the **TO BE CONSTRUCTED** items and quantities. The Highway Lighting Plan format is to be used for both intersections and for highway interchanges.

The Title block for each Highway Lighting Plan should be completed by the designer, as shown in the Sample Plans.

All Highway Lighting Plans are to be prepared according to current Department and Traffic Signal and Safety Engineering CADD standards. These standards can be obtained upon written request to the Manager of Traffic Signal and Safety Engineering.

18.0 ITS Plans

The purpose of the ITS Plans is to provide guidance as to the preparation of the ITS Engineering aspects of a complete ITS system installation design including the power and communication sources. The various communication links of all individual devices installed in the field to the designated Traffic Operation Centers is to be determined by the designer and must be shown in the plans. Each plan including any ITS device installation design requires a 1:30 scale ITS Plan. ITS Plans showing only the layout of conduits and junction boxes are to be on a scale of 1:100.

The ITS Plans are used for presenting the layout of underground conduits carrying fiber optic cables or other communication cables as well as electrical service conduits and conductors along with all devices.

The plan is to include existing and proposed junction boxes, conduits, power and communications sources, meter cabinets, control cabinets, foundations, devices, grid pavers, guide rail (if warranted) and "To Be Constructed" items. Proposed junction boxes for fiber optic trunk cable shall generally be located at 2500 feet intervals. All non-concrete junction boxes shall not be in the paved area or in an area where there is a possibility of widening in the future. Additional sheets are also necessary to show details of the work in order to facilitate construction. Separate details including a system block diagram, rack profiles and fiber assignment diagrams are required in order to show the communication equipment components, configuration parameters and the designated fibers for each communication link. The system block diagram must also include separate blocks for each field device and their interconnection with the existing and proposed TOC equipment including any routing through communication hubs.

If there are more than four plans to show the ITS sites, then a large scale, 200 to 500 scale, ITS Location Plan shall be provided. The ITS legend and General Notes, with applicable electrical symbols, shall be included on this ITS Location Plan or the first ITS Plan sheet for those Contracts without an ITS Location Plan. Applicable legends for non-ITS work impacting the ITS work shall be included also such as guide rail.

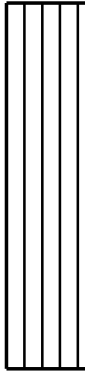
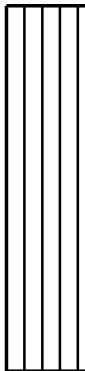
The ITS Plans shall show the following existing/proposed information:

- Existing topography, where applicable to the ITS deployment
- Roadway including striping of the lane configurations
- Drainage with low and high points indicated on the highway
- Guide rail.
- Grid Pavers
- Static Signs
- Top and toe of slopes
- R.O.W., including fencing
- Bridge Structures
- Utility facilities Note: The associated items for work not covered under Division 700 shall be on the respective Construction Plans unless the Contract is for ITS work only.

Add note on plans for orientation of the CCTV blind spot (medians).

All ITS Plans are to be prepared according to the current Department CADD standards including specifics for ITS. These standards can be obtained from the Department's web site.

ITS symbols for existing and proposed ITS facilities shall be shown on the Construction Plans.



19.0 Landscape Plans

Landscape planting sheets shall include:

- Proposed planting and landscape architectural work
- Existing topography, where applicable
- Drainage
- Guide rail
- Curbs
- Walks
- Signs
- Top and toe of slopes
- R.O.W. lines and No Access Lines
- Bridge Structures
- Proposed and existing fencing
- Easements
- Proposed roadway
- Utilities (overhead and under ground)

Planting sheets should not show additional information unrelated to Landscape unless approved by the Project Manager.

20.0 Traffic Signing and Striping Plans

The number of plan sheets included for Traffic Signing and Striping shall be kept to a minimum by using such drafting techniques as break-lines and out of scale drawings. Traffic Signing and Striping Plans produced by superimposing traffic stripes and signs on other plan view sheets will only be accepted for smaller projects having three or less plan view sheets.

When Permanent Warning or Regulatory Signs are included in the project, a similar sign table as shown on TC-1 of the Sample Plans shall be placed on the first signing and striping plan sheet. The total quantity of Permanent Signs in square feet should be shown on the Estimate-Distribution of Quantities (EDQ) sheet. On the EDQ sheet, the total quantity of signs in square feet should be indicated as "If and Where" items.

21.0 Method of Cross Sections

A Method of Cross Sections sheet shall be provided for interchange areas or any area where Cross Sections may vary from the normal method of sections. Stations shall be shown and shall conform to the cross sections. The baseline from which the sections are taken shall be clearly indicated.

22.0 Cross Sections

Cross Section sheets shall follow the format shown in this sample plan set. Scale shall normally be 1"=10' or 1"=5'. Sections shall be shown in ink on polyester type cross sectional Mylar or CADD generated equivalent. Sections shall show the existing ground line plus the proposed section template and baseline.

Original ground elevation shall be shown at the baseline and proposed elevations shall be shown at the profile line. Designers are reminded that excavation and embankment quantities shown on the Cross Sections shall be measured between the dashed lines representing the surface of the existing ground and the solid lines representing the limits of excavation or embankment. Where Topsoiling is proposed, the solid lines shall indicate the bottom of the proposed Topsoil. Sections shall not show location of vertical or barrier curbs. Retaining walls, crib wall, abutments, piers, and building foundations shall be shown. Equations shall be noted where necessary.

In order to clarify the method used to determine earthwork quantities from cross sections, the standard notes and legend shall be shown on the first Cross Section sheet as indicated on the sample sheet. A Datum shall be indicated for each section (vertical and horizontal). Limits for Topsoiling, Stripping, and I-7 soil aggregate or I-11 soil aggregate shall be noted on the sections. Items such as Removal of pavement, I-9 soil aggregate, I-10 soil aggregate and any select embankments shall be calculated and shown as plan sheet quantities. Placement limits shall be shown on the cross sections so that no additional quantities of other items are calculated. Sections indicating areas of Excavation unclassified (wet areas) and Unsuitable Material shall show apparent firm bottom with side slope ratios.

Unclassified excavation in ditches or channels shall be noted with quantities. Quantities shall also be noted for Topsoiling, Stripping, and cuts and fills in the units shown on the legend.

It shall be noted on the Cross Sections, that additional embankment available from the project shall be used to reduce the amount of Borrow Excavation accordingly.

Above the title block, the location (Main Line, Ramp Z, etc.) and station to station of the sheet shall be noted.

Cross Sections are an important element of the Construction Plans. **CROSS SECTIONS SHOULD NOT BE DISREGARDED, EVEN ON RESURFACING PROJECTS.** Resurfacing projects shall include Cross Sections for the following reasons:

- Without Cross Sections, HMA courses may bury the curb on the high side of superelevation and undercut pavement on the low side. Drainage problems may be created in the areas adjacent to the traveled way or shoulder.
- Without Cross Sections, driveway touch down limits are unknown on the high side of the superelevation.
- The effect of the superelevation on the sidewalk area may require an additional R.O.W. acquisition.
- Design exceptions may be required to vary cross slopes of superelevation to lessen the impact on sidewalks or driveways.

- Without Cross Sections, the Contractor cannot properly bid the item Milling because the depth of Milling is not known.
- Without Cross Sections, the amount of paving material required to meet the proposed cross slopes or grades is not properly estimated.
- If HMA thickness is not known, the Contractor cannot determine the number of passes required to construct the bottom courses of HMA paving.

EXCEPTIONS TO THE REQUIREMENT FOR CROSS SECTIONS ON RESURFACING PROJECTS OR PORTIONS OF RESURFACING PROJECTS MUST BE APPROVED BY THE PROJECT MANAGER. EXCEPTIONS WILL BE ALLOWED IF THE FOLLOWING CRITERIA ARE MET:

1. Cross slopes are unchanged with milling and paving the same thickness.
2. The proposed and existing Typical Section is an umbrella section roadway and cross slopes will not change significantly.
3. The proposed and existing Typical Section is a curb section where cross slopes do not significantly change and the elevation of the curb will not change. Cross Sections may be required in critical areas to determine curb reveal.

22.1 Retaining Wall System

For projects with Retaining Walls, refer to Bridge Plans for alternate types of retaining walls. This work shall include the construction of the walls as shown on the bridge plans, including any required Excavation and Embankment within the "limits of common structure volume" of the Structures. For showing the limits of common structure volume, on contract plans, refer to sample control plan standard drawings of the NJDOT "Bridge and Structures Design Manual".

The Cross Sections shall clearly denote, at each site, the limits of common structure volume. Which applies to all alternate retaining wall designs. The payment for Roadway Excavation, Unclassified and for Backfill within the "limits of common structure volume" for Retaining Walls shall be made under the item for the Retaining Walls; therefore, the quantity for Roadway Excavation and Backfill shall not be included in the roadway earthwork calculations.

22.2 Earthwork Summary

ANY PROJECT WITH CROSS SECTIONS MUST INCLUDE AN EARTHWORK SUMMARY.

The Earthwork Summary shall appear on the last Cross Section sheet or on the same sheet as the Earthwork Chart. The Earthwork Summary will vary from project to project, but the format provided in this sample set shall be used as a guide.

The following items shall be noted when preparing the summary:

- The quantity for stripping in cuts shall be deducted from the Roadway Excavation from Cross Sections.

- Excavation, Unclassified from plan Sheets shall be quantities not covered on Cross Sections.
- All earthwork quantities from Cross Sections and Plan Sheets shall be reflected in the earthwork summary.
- The total area of stripping times the stripping thickness indicated in the quantity calculations shall equal the total quantity of stripping in cut plus the stripping in fill.
- If detour roads require temporary embankments, ensure that the removal quantity for the detour road has been included in the excavation total.
- Staging of construction shall be considered in determining the suitable excavated material that will be available for embankment, or to be borrowed as required for the embankment.
- The total quantity for Stripping available will be compared with the quantity required for topsoil.
- The item, Borrow Topsoil, is required when the quantity required for Topsoil is greater than the Stripping available.

The two formats shown shall be used as a guide in preparing the suitable Earthwork Summary.

Sample No. 1 (Format to be used for project with single funding sources).

Sample No. 2 (Format to be used for projects with multiple funding sources).

22.3 Earthwork Chart Sheet

An Earthwork Chart Sheet should be provided only when the project is a large earth moving project and complex enough to warrant a graphic picture of available embankment sites. If the Designer feels that an Earthwork Chart is necessary, the subject shall be discussed with the Project Manager and a determination will be made.

23.0 Roadway Construction Details

Two Standard Construction Detail Booklets are available to Designers and Contractors; one containing Standard Roadway Construction Details, Standard Traffic Control Details and Bridge Standard Details, and the other containing Standard Electrical Details. These booklets are available for purchase through the Engineering Documents Unit (609-530-5587), @ 1035 Parkway Ave., Engineering and Operations Building, Trenton, N.J. 08625. It is also available on Department's website for download.

A note shall be placed on the Key Sheet immediately below the Index of Sheets box, stating the applicable booklet for the project. Standard details will not be included in the plans. **HOWEVER, DETAILS REVISED BY BASELINE DOCUMENT CHANGE (BDC) ANNOUNCEMENT SUBSEQUENT TO THE ISSUANCE OF THE BOOKLETS APPLICABLE FOR THE PROJECT, NON-STANDARD DETAILS, AND SHEETS THAT REQUIRE DESIGN SPECIFIC INFORMATION SHALL BE INCLUDED IN THE PLANS.** Non-Standard details shall be signed by the Designer and inserted in the Contract Plans.

The order to be followed when inserting Construction Details shall be the same order as the items appear in the Special Provisions.

There are 3 Sign Support sheets (CD-619-6, CD-619-12, and CD-619-15), one Landscape sheet (CD-813-1), and two Electrical sheets (L-1094M and L-1794M) that contain the following note in the booklets only.

"THIS SHEET REQUIRES DESIGN SPECIFIC INFORMATION TO BE ADDED AND INCLUDED IN THE CONTRACT PLANS."

Therefore, these sheets will always be included in the plans with the design specific information added, if they are to be applicable.

24.0 Structural Plans

Structural plans shall be prepared in accordance with criteria that are provided in the Design Manual for Bridges and Structures.

24.1 Bridge Construction Details (BCD)

Any standard detail or BCD that does not represent the proposed bridge construction concept that is to be used on a given project, shall be modified and placed in the Bridge plans. The Designer shall include notes in the Bridge plans that identify which Bridge Construction Detail has been changed and is no longer valid for the given project. The Designer's attention is directed to the following comments concerning the use of the Bridge Construction Details sheets:-

- Bridge deck rehabilitation details shall not be used for deck patching repair work. Details for bridge deck patching shall be developed by the Designer from information provided by Structural Engineering. Bridge deck patching details shall be included in the bridge plans. Deck patching repair work differs from deck rehabilitation work in the type of repairs to be performed and the way in which the repairs are to be done and paid for.
- Variations in details that are provided for deck joint assemblies shall be submitted for the RE's approval in accordance with working drawing submission requirements
- The Designer shall identify by details or notes on the bridge plans the type of bridge parapet to be used for each bridge in the project. The Designer may need to make changes to the bridge parapets for the addition of metal railings or fencing. - BRIDGE MEDIAN BARRIER" details indicate the height of the bridge barrier at 32 inches. The Designer shall verify that the heights of the roadway approach barriers match the height of the bridge barrier or a smooth transition between the barriers shall be provided.
- Details for sawcut grooving on bridge decks are indicated. This work is to be included in the overall cost of constructing the deck.

- The "TYPICAL PLAN - CULVERT AND HEADWALL" detail identifies a concrete apron to be used at the culvert ends when required by hydraulic design. The Designer shall provide a detail on the Bridge plans as to size and location of concrete aprons, if aprons are required to be constructed at the ends of the culvert. See view titled, "TYPICAL PLAN - ABUTMENTS", this detail identifies joints between the abutment wall and retaining walls. The Designer shall show by note(s) on the Bridge plans whether these joints are expansion or contraction joints.
- To complete the "DRAINAGE BACK OF WALL" presentation, the invert elevations for the underdrain pipe shall be shown on the Bridge plans. The Designer shall investigate and identify the location of the nearest roadway inlet for the pipe to connect with. This information shall be noted on the Bridge plans.
- Details of 6'-3" curved top bridge chain link fence and 6'-3" vertical bridge chain link fence are provided.
- The Bridge Construction Detail sheets for stay in place (SIP) forms were developed from various Guide Sheets contained in the NJDOT "Bridges and Structures Design Manual".
- Details for provision of bridge approach slabs are included as Bridge Construction Details.

The Bridge Design Manual also contains Standard Drawings. The Standard Drawings are full size (22" x 36") drawings and are intended to be incorporated into the Bridge plans, if applicable to the project. This practice of including Bridge Standard Drawings in the plans will be maintained and is unaffected by using the Bridge Construction Detail sheets. Final Design submission guidelines are provided in the Bridges and Structures Design Manual.

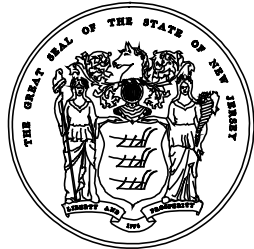
UTILITIES	
PUBLIC SERVICE ELECTRIC & GAS (GAS MAINS)	
JERSEY CENTRAL POWER & LIGHT CO. (POLE LINES, CONDUIT)	
NEW JERSEY BELL (POLE LINES, CONDUIT)	
ALGONQUIN GAS TRANSMISSION (TRANSMISSION MAINS)	
CONRAIL (RAILROAD FACILITIES)	
BOROUGH OF RIVERDALE (WATER MAINS)	
BOROUGH OF POMPTON LAKES M.U.A. (WATER MAINS)	
U.A.COLUMBIA CABLEVISION	
NEW JERSEY DEPARTMENT OF TRANSPORTATION (TRAFFIC SIGNALS AND HIGHWAY LIGHTING)	

BRIDGES IN THIS CONTRACT	
①	BRIDGE NO. 1003-007 RTE. 23 OVER I-287
②	BRIDGE NO. 1003-008 RTE. 23 OVER RAMP C
WALLS IN THIS CONTRACT	
③	WALL NO. 2 BETWEEN RAMPS C & D
④	WALL NO. 3 AT RELOCATED HIGHLAND AVE.
⑤	WALL NO. 4 AT RAMP LM
SIGN SUPPORT STRUCTURES IN THIS CONTRACT	
⑥	CANTILEVER SIGN SUPPORT STRUCTURE NO. 3
⑦	CANTILEVER SIGN SUPPORT STRUCTURE NO. 4
⑧	CANTILEVER SIGN SUPPORT STRUCTURE NO. 5
⑨	OVERHEAD SIGN SUPPORT STRUCTURE NO. 7
⑩	CANTILEVER SIGN SUPPORT STRUCTURE NO. 8
⑪	BRIDGE MOUNTED SIGN SUPPORT STRUCTURE NO. 9
⑫	CANTILEVER SIGN SUPPORT STRUCTURE NO. 10
⑬	OVERHEAD SIGN SUPPORT STRUCTURE NO. 11
⑭	OVERHEAD SIGN SUPPORT STRUCTURE NO. 12
TEMPORARY STRUCTURES IN THIS CONTRACT	
⑮	TEMPORARY STRUCTURE UNDER RTE. 23 DETOUR
CULVERTS IN THIS CONTRACT	
⑯	CULVERT UNDER MAINLINE
⑰	CULVERT UNDER MAINLINE

DESIGN TRAFFIC DATA - RTE. 287			
A.D.T. (2000) - 2 WAY	=	48,460	
A.D.T. (2020) - 2 WAY	=	74,680	
D.H.V. (2020) - 2 WAY	=	8,550	
D	=	50%	
T	=	15%	
V	=	60 M.P.H.	
DESIGN TRAFFIC DATA - RTE. 23			
A.D.T. (2000) - 2 WAY	=	32,350	
A.D.T. (2020) - 2 WAY	=	51,740	
D.H.V. (2020) - 2 WAY	=	4,990	
D	=	50%	
T	=	15%	
V	=	60 M.P.H.	

"CHANGES MADE TO THESE PLANS SINCE SIGNATURE BY THE CONSULTANT MAY BE DETERMINED BY COMPARISON OF THE PLANS FILED AT THE DEPARTMENT WITH THOSE FILES AT THE OFFICE OF THE CONSULTANT."

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 99999



State of New Jersey Department of Transportation

PLANS OF

ROUTE 287

FROM SOUTH OF ROUTE 23 TO PATERSON-HAMBURG TURNPIKE

AND

ROUTE 23

FROM THE VICINITY OF RIVERDALE ROAD TO THE
VICINITY OF COTLUSS ROAD

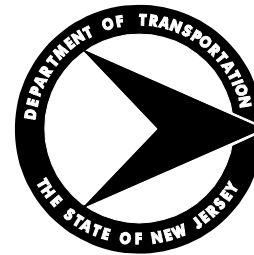
CONTRACT NO. 045961901

GRADING, PAVING & STRUCTURES

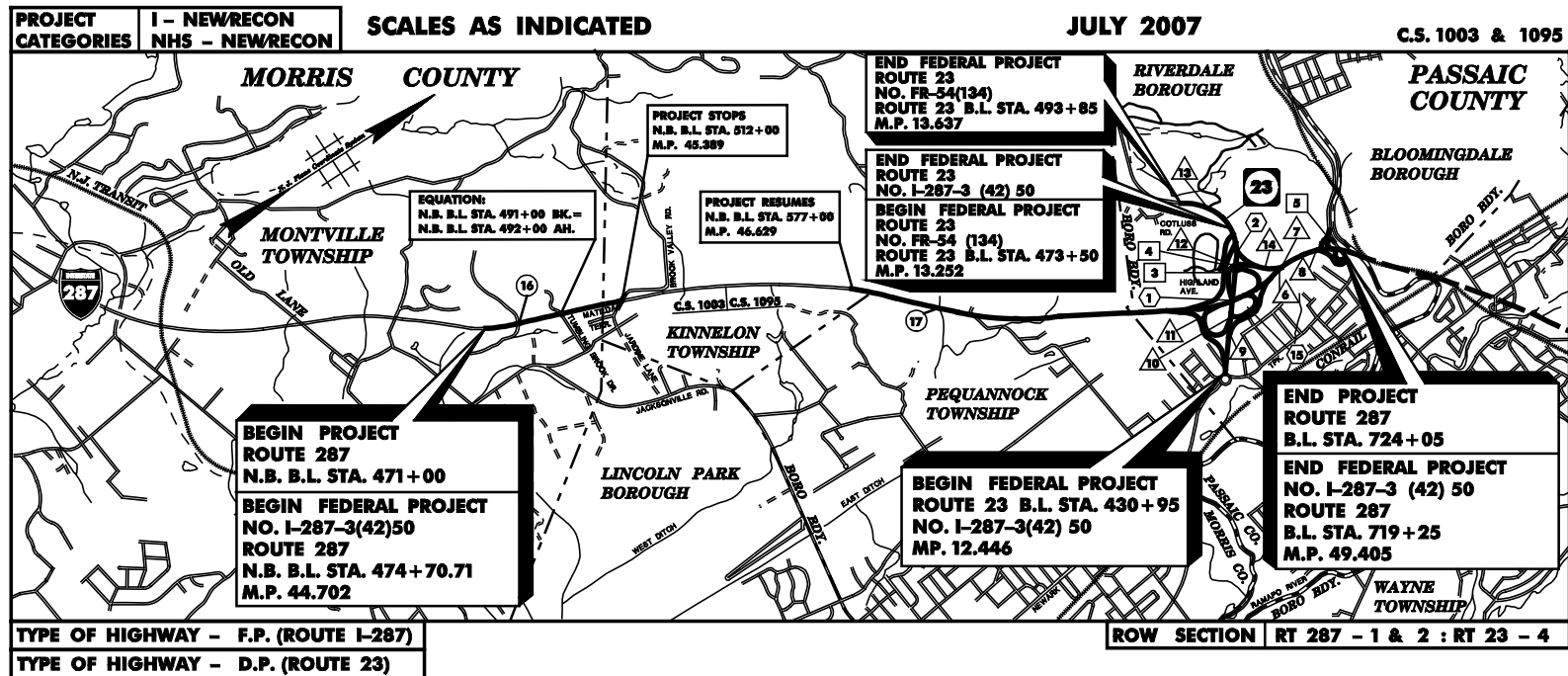
BOROUGH OF RIVERDALE

MORRIS COUNTY

TOWNSHIPS OF KINNELON, PEQUANNOCK & MONTVILLE



INDEX OF SHEETS		
	SHEET NUMBERS	DESCRIPTION
PART 1	1	KEY
	2-9	ESTIMATE - DISTRIBUTION OF QUANTITIES
	10-15	TYPICAL SECTIONS
	16-17	PLAN SHEET INDEX
	18-36	CONSTRUCTION PLANS
	37-43	ENVIRONMENTAL PLANS
	44-55	PROFILES
	56-61	TIES
	62-87	GRADES
	88-115	TRAFFIC CONTROL AND STAGING PLANS
PART 2	116-121	ELECTRICAL PLANS
	122-128	ELECTRICAL DETAILS
	129-154	LANDSCAPE PLANS
	155-180	TRAFFIC STRIPING AND SIGNING PLANS
	181	METHOD OF CROSS SECTIONS
	182-236	CROSS SECTIONS
	237-245	CONSTRUCTION DETAILS
PART 3	246-247	ESTIMATE OF QUANTITIES - BRIDGE
	248-390	BRIDGE PLANS



KEY MAP



LENGTH OF PROJECT ROUTE 287 = 18,705 LIN. FT. OR 3.542 MILES
LENGTH OF PROJECT ROUTE 23 = 6,290 LIN. FT. OR 1.191 MILES
TOTAL LENGTH OF PROJECT = 24,995 LIN. FT. OR 4.733 MILES

TOTAL LENGTH OF FEDERAL PROJECT NO. I-287-3(42)50 = 22,109 LIN. FT. OR 4.187 MILES
TOTAL LENGTH OF FEDERAL PROJECT NO. FR-54 (134) = 2,035 LIN. FT. OR 0.385 MILES

2007 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION TO GOVERN

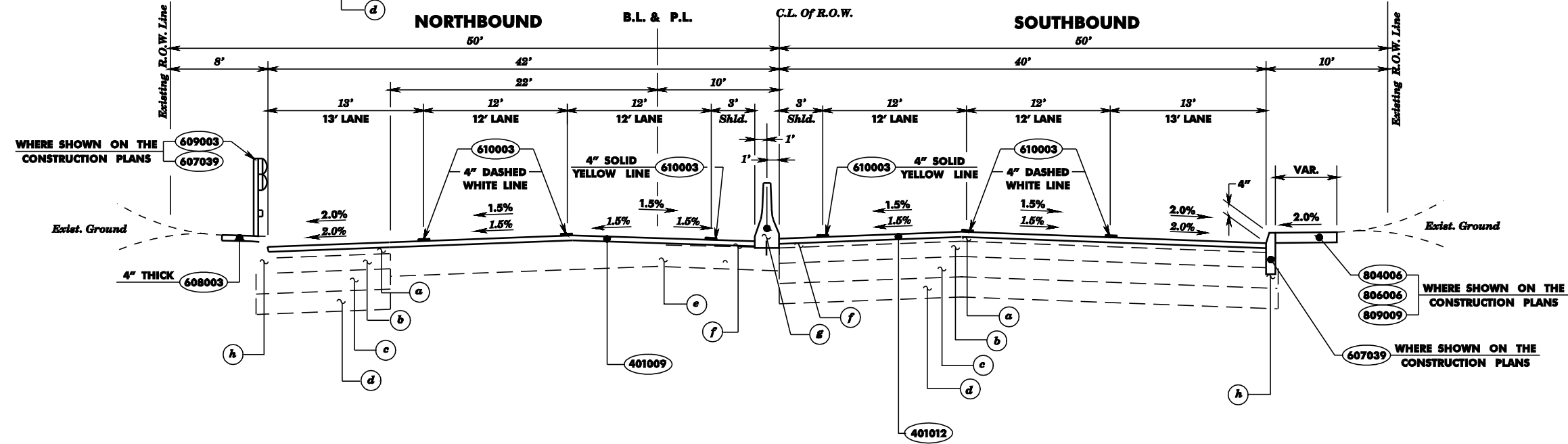
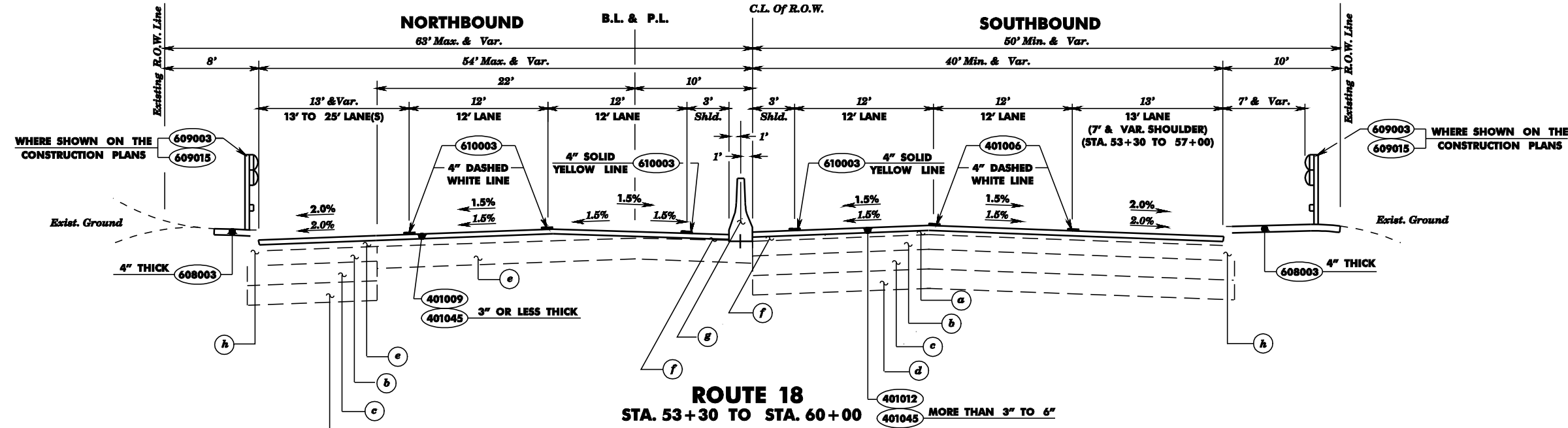
Submitted by _____ Date _____
Director, Division Of Project Management
Approved by _____ Date _____
State Transportation Engineer

STANDARD ROADWAY
CONSTRUCTION-TRAFFIC CONTROL-
BRIDGE CONSTRUCTION DETAILS
BOOKLET, (Year) AND STANDARD
ELECTRICAL DETAILS BOOKLET,
(Year) ARE APPLICABLE TO THIS
PROJECT EXCEPT FOR THOSE
DETAILS CONTAINED HEREIN.

MID-POINT OF PROJECT
LONGITUDE: 74 ° 38' 42" W
LATITUDE: 40 ° 11' 01" N

PART 1 OF 3

CAN 074 - ADDED SEQ. NO. COLUMN
BR0077-AS - ORIGINAL GUEST



PROPOSED MATERIALS	
ITEM NO.	DESCRIPTION
401009P	HMA MILLING, 3" OR LESS
401012P	HMA MILLING, MORE THAN 3" TO 6"
401045M	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE
607039P	9" x 16" CONCRETE VERTICAL CURB
609003M	BEAM GUIDE RAIL
609015M	RUB RAIL
610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4" THICK
804006P	TOPSOILING, 4" THICK
806006P	FERTILIZING AND SEEDING, TYPE A3
809009M	STRAW MULCHING
608003P	NON-VEGETATIVE SURFACE, HOT MIX ASPHALT

Existing Materials	
Symbol	Description
a	Pavement Type FA-BC-2, 8" And Variable Thickness
b	Bituminous Stabilized Base Course, 6" Thick
c	Subbase, 8" Thick
d	Borrow Excavation, Selected Material, 8" Thick
e	Existing 9" Reinforced Concrete
f	Bituminous Concrete Shoulder Variable Thick
g	Existing 24"x 32" White Concrete Barrier Curb, Dowelled
h	9"x 18" White Concrete Vertical Curb

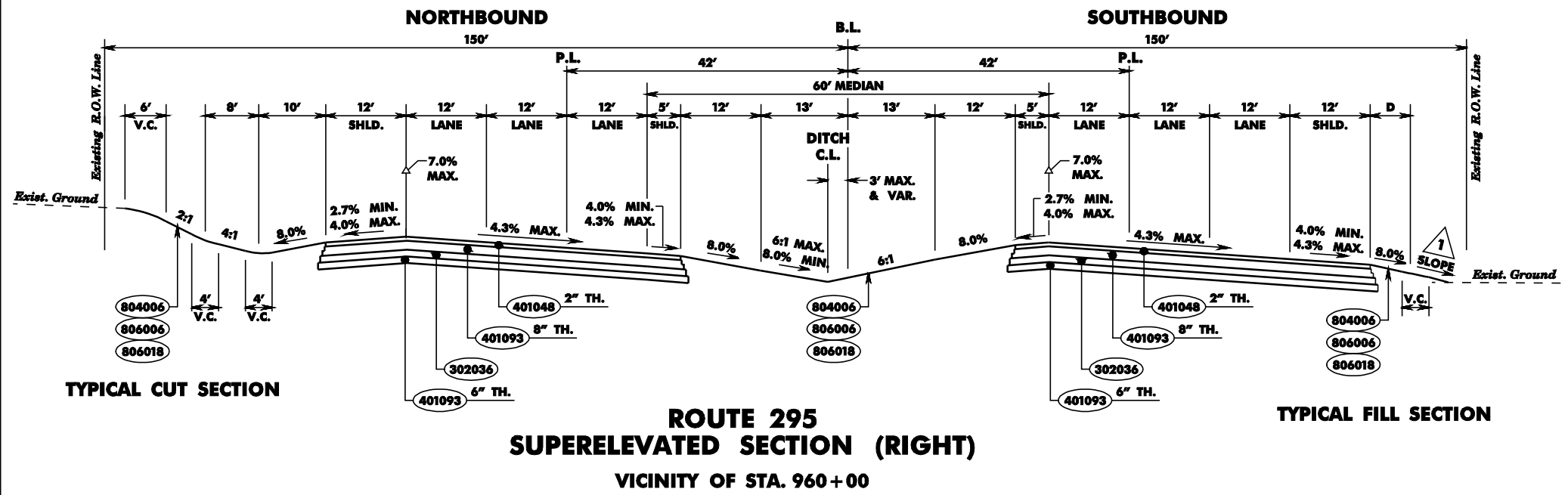
N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

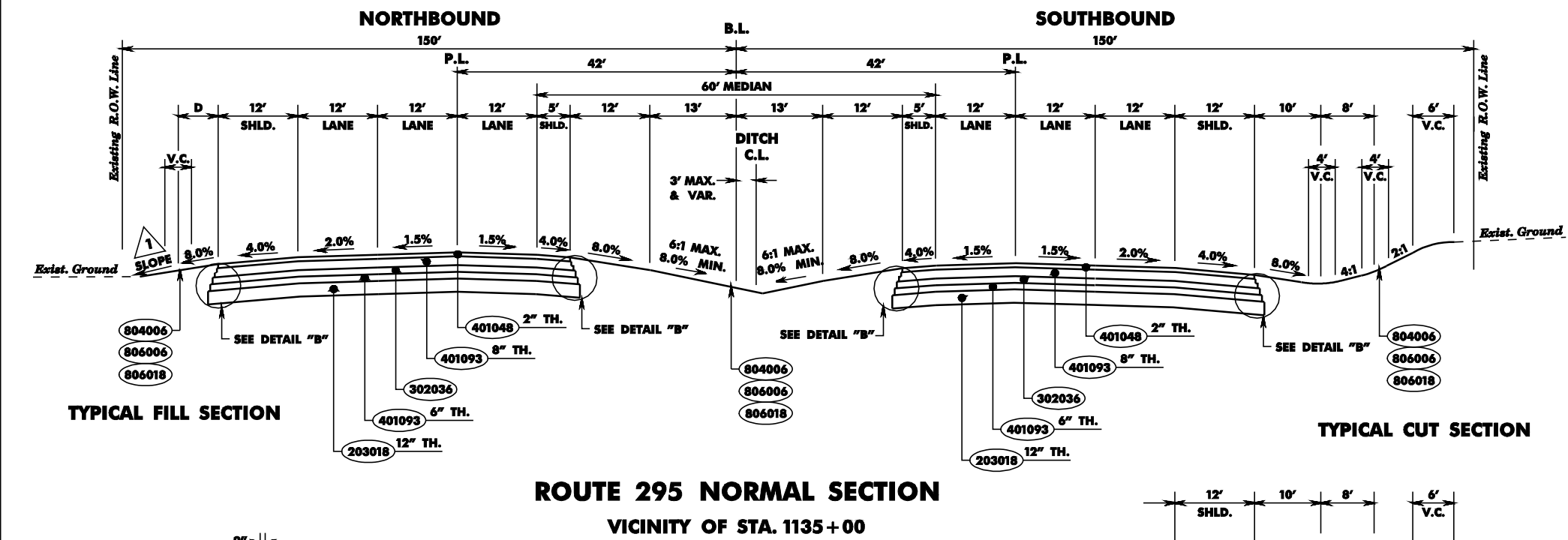
TYPICAL SECTIONS

ROUTE 18
CONTRACT NO. 010010001

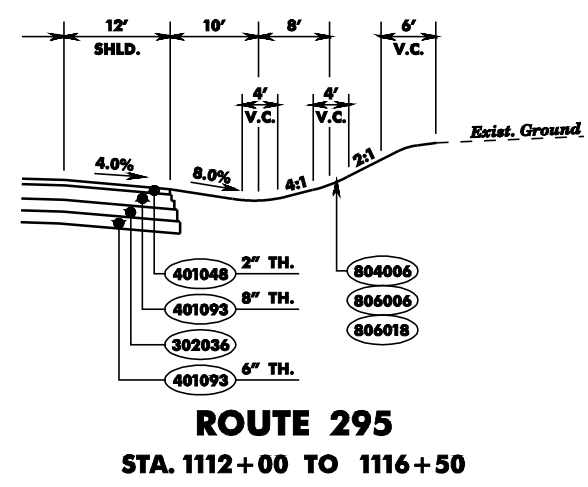
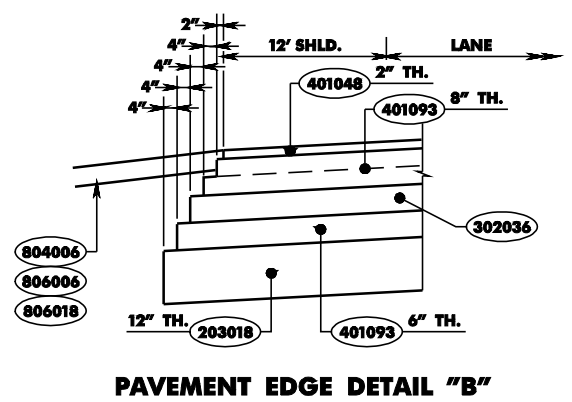
Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999



PROPOSED MATERIALS	
ITEM NO.	DESCRIPTION
203018P	1 - 13 SOIL AGGREGATE
401093M	HOT MIX ASPHALT 25 M 64 BASE COURSE
302036P	DENSE GRADED AGGREGATE BASE COURSE, 6" THICK
401093M	HOT MIX ASPHALT 25 M 64 BASE COURSE
401048M	HOT MIX ASPHALT 12.5 M 64 SURFACE COURSE
804006P	TOPSOILING, 4" THICK
806006P	FERTILIZING AND SEEDING, TYPE A3
806018P	FERTILIZING AND SEEDING, TYPE F



SLOPE TREATMENT IN FILL			
FILL HEIGHT	D	V.C.	SLOPE
0 TO 5'	2'	4'	6:1
5' TO 10'	3'	6'	4:1
OVER 10'	7'	6'	2:1



N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

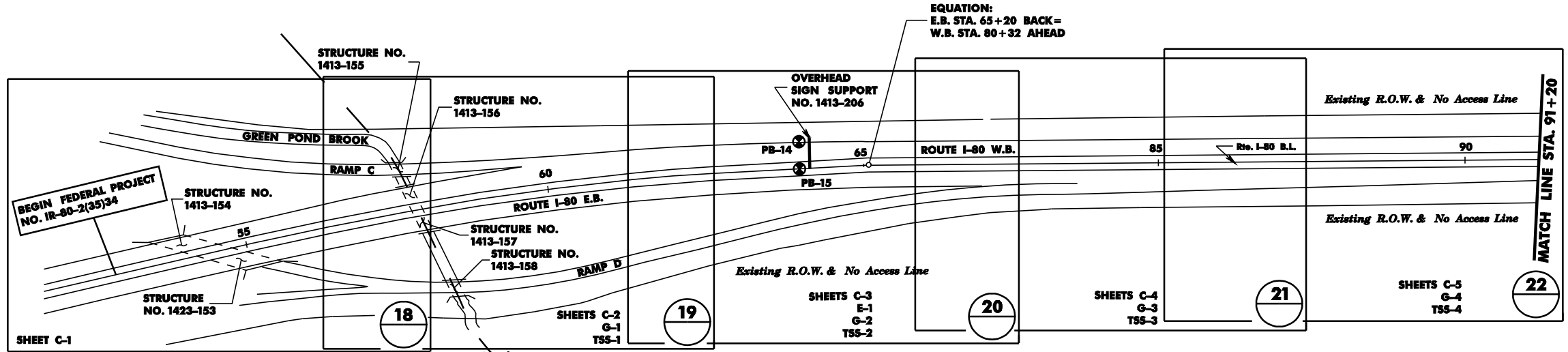
ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

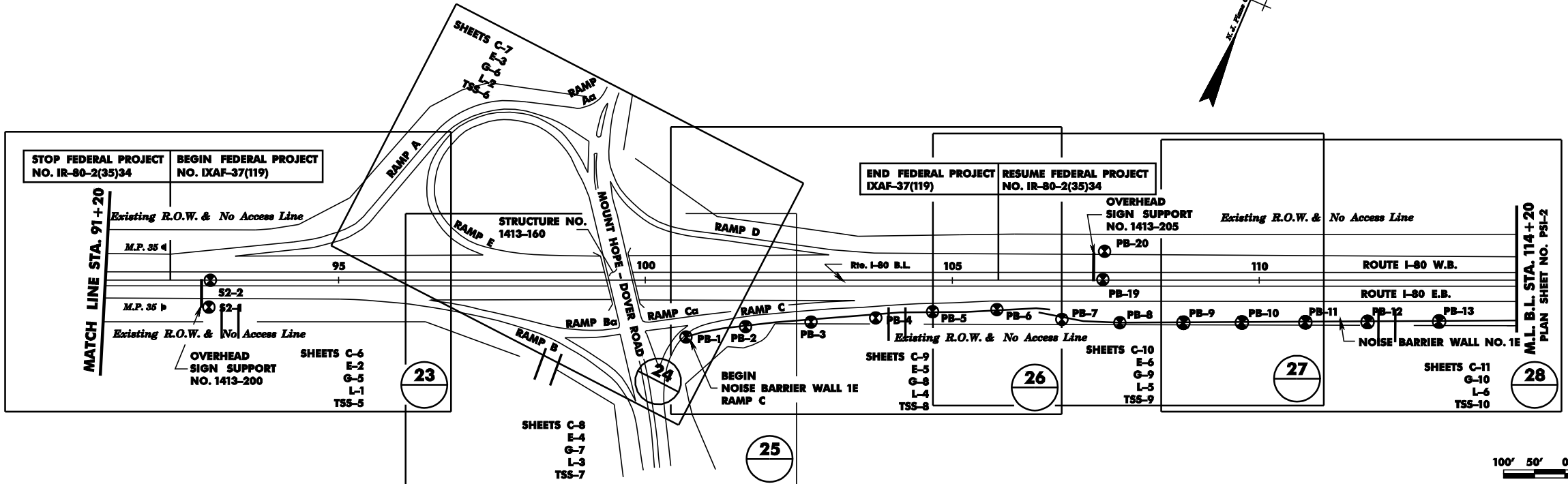
BOROUGH OF WHARTON

TOWNSHIP OF ROCKAWAY

COUNTY OF MORRIS



FEDERAL PARTICIPATION LIMITS



LEGEND

- SHEET C = CONSTRUCTION PLANS
- SHEET E = ELECTRICAL PLANS
- SHEET G = GRADES
- SHEET TSS = TRAFFIC STRIPING PLANS
- SHEET L = LANDSCAPE PLANS
- ⊗ = BORING FOR NOISE BARRIER WALL
AND FOR SIGN SUPPORT

FEDERAL PARTICIPATION LIMITS

NEW JERSEY DEPARTMENT OF TRANSPORTATION

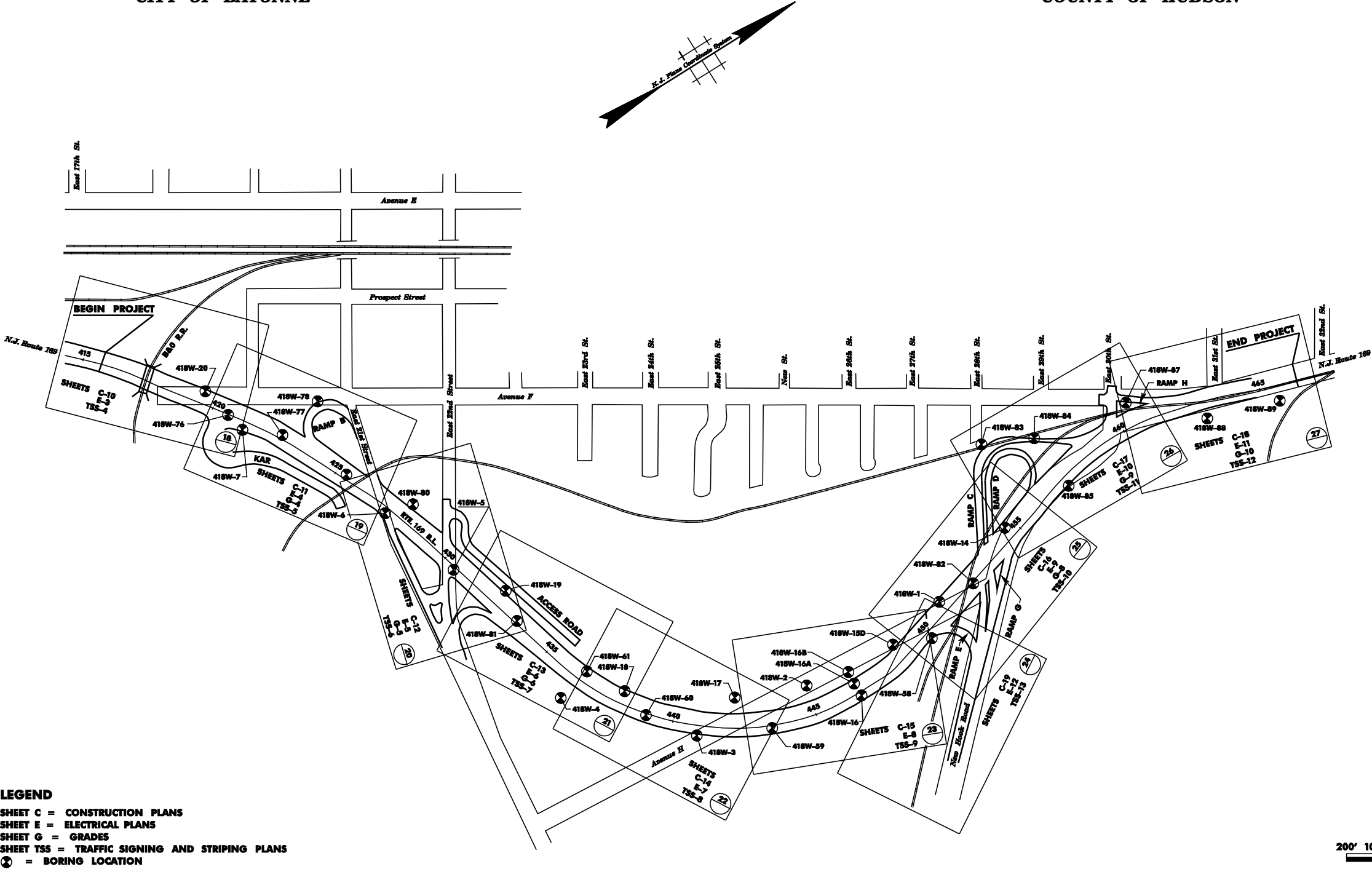
PLAN SHEET INDEX

ROUTE 80
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

CITY OF BAYONNE

COUNTY OF HUDSON



LEGEND
SHEET C = CONSTRUCTION PLANS
SHEET E = ELECTRICAL PLANS
SHEET G = GRADES
SHEET TSS = TRAFFIC SIGNING AND STRIPING PLANS
⊗ = BORING LOCATION

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PLAN SHEET INDEX

ROUTE 169
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD LEGEND

STATE	FEDERAL PROJECT NO.
N.J.	*

Linear Features

Existing	PROPOSED	
W	W	Water Main (Size)
G	G	Gas Main (Size)
T	T	Telephone Conduit
E	E	Electric Conduit (Highway or Utility)
CTV	CTV	Cable TV
FO	FO	Fiber Optic
ITS	ITS	Intelligent Transportation System (Wires & Cables)
(Size & Type)	(SIZE & TYPE)	Sanitary Sewers or Storm Drains
(Over 30' - Draw to Size)		
		Pavements (Concrete or Bituminous)
		Shoulders
		Curbs
(F) (C)	(C) (F)	Slopes (Cut & Fill)
5+00	10+00	Base Line
Existing R.O.W. Line	PROPOSED R.O.W. LINE	Twp., City, County Lines
Existing R.O.W. & No Access Line	PROP. R.O.W. & NO ACCESS LINE	Right of Way Lines (Access Permitted)
P		Right of Way Lines (No Access)
x x x x x		Easements
		Property Line
		Fence (Size & Type)
		Reset Fence
		Beam Guide Rail
		Reset Beam Guide Rail
		Noise Walls
		Wetland Limit Line
		Silt Fence
Ditch	DITCH	Ditches
		Railroad Tracks
		Tree Line

Topographical Features

Existing	PROPOSED	
		Inlets (Label Type)
		Inlets (Type ES)
		Manholes (Label Type or Utility)
		Reset (Inlets or Manholes)
		Reconstructed (Inlets or Manholes)
		Cast Iron Extension (Frame or Ring) (Inlet or Manhole)
		New Manhole Casting, Square Frame, Circular Cover
		R.C. End Section or C.M. Headwall
		Headwalls
		Headwalls & Aprons
		Water Gate Valves
		Reset Water Gate Valves
		Gas Gate Valves
		Reset Gas Gate Valves
		Hydrants
		Reset Hydrants
		Utility Pole (Type & Number)
		Temporary Utility Pole
		Traffic Signal
		Junction Box
		Fiber Optic Junction Box
		Junction Box Foundation
		Signs
		Vertical Panels
		Camera (With Blind Spot)
		Dynamic Message Sign (DMS)

Topographical Features

Existing	PROPOSED	
		Guide Rail End Terminals
		Beam Guide Rail Anchorages
		Monuments
		ROW Monument (ROW Control Points)
		Test Pit
		Borings (Boring Number)
		Deciduous Tree (Size, Kind)
		Evergreens
		Bush
		Hedges
		Swamp

Double Reference Codes

EDQR	ESTIMATE AND DISTRIBUTION OF QUANTITIES - ROADWAY
TS	TYPICAL SECTIONS
PSI	PLAN SHEET INDEX
C	CONSTRUCTION PLANS
EP	ENVIRONMENTAL PLANS & SOIL EROSION & SEDIMENT CONTROL PLANS
D	DRAINAGE PLANS
DTL	CONSTRUCTION DETAILS
P	PROFILES
T	TIES
G	GRADES
TC	TRAFFIC CONTROL AND STAGING PLANS
TSP	TRAFFIC SIGNAL PLANS
E	ELECTRICAL PLANS
HL	HIGHWAY LIGHTING PLANS
ITS	INTELLIGENT TRANSPORTATION SYSTEM PLANS
SL	SIGN LOCATION PLANS
TSS	TRAFFIC SIGNING AND STRIPING PLANS
STD	SIGN TEXT DETAILS
L	LANDSCAPE PLANS
MS	METHOD OF CROSS SECTIONS
X	CROSS SECTIONS
EQB	ESTIMATE OF QUANTITIES - BRIDGE
B	BRIDGE PLANS

Miscellaneous Symbols

	Items With No Alternate
Alternate Items OR	For Alternate Pipe Items (C) = Concrete (M) = Metal
	Milling
	Building to be Demolished
	Removal of Concrete Base Course & Concrete Surface Courses
	Building to be Removed & Paid for Under Clearing Site
PARCEL	Demolition No. & Parcel No. of Building to be Demolished
PROFILE LEVEL LINE	
	High Point
	Low Point
B.M.	Bench Mark

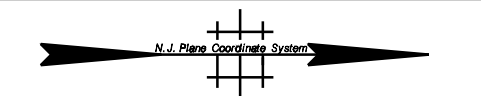
GENERAL NOTES:

ABBREVIATIONS USED IN THIS CONTRACT

AH., BK.	AHEAD, BACK	J.B.	JUNCTION BOX	RCP, R.C.P.	REINFORCED CONCRETE PIPE
B.L.	BASELINE	LT., RT.	LEFT, RIGHT	RMC, R.M.C.	RIGID METALLIC CONDUIT
B.M.	BENCH MARK	L.O.P.	LIMIT OF PAVEMENT (PAVING)	RNMC, R.N.M.C.	RIGID NON-METALLIC CONDUIT
B.T.	BELL TELEPHONE	L.O.M.	LIMIT OF MILLING	ROW, R.O.W.	RIGHT OF WAY
BIT., BITUM.	BITUMINOUS	M.B.	MAILBOX	R.R.	RAILROAD
BLDG.	BUILDING	M.P.	MILE POST	RTE., RT.	ROUTE
C.	CENTERLINE	MAX.	MAXIMUM	SAN.	SANITARY
C.I.P.	CAST IRON PIPE	MIN.	MINIMUM	SDWK.	SIDEWALK
C.M.P.	CORRUGATED METAL PIPE	NO.	NUMBER	S.H.D.	STATE HIGHWAY DEPARTMENT
CONC.	CONCRETE	N.T.S.	NOT TO SCALE	SHLD.	SHOULDER
CULV.	CULVERT	PAV'T.	PAVEMENT	S.L.	SURVEY LINE
D, DIA.	DIAMETER	PERF.	PERFORATED	S.O.D.	SUBBASE OUTLET DRAIN
D.C.	DROP CURB	P.G.L.	PROFILE GRADE LINE	STY.	STORY
DE	DITCH EXCAVATION	P.L.	PROPERTY LINE, PROFILE LINE	T	TANGENT
DEP., DP	DEPRESSED CURB	PK	PARKER KAYLON MASONRY NAIL	TBA	TO BE ABANDONED
DH	DRILL HOLE	POC, P.O.C.	POINT ON CURVE	TBR	TO BE REMOVED
DWY	DRIVEWAY	POL, P.O.L.	POINT ON LINE	TEL.	TELEPHONE
E.B., W.B., N.B., S.B.	EASTBOUND, WESTBOUND	POT, P.O.T.	POINT ON TANGENT	TEMP.	TEMPORARY
		PRC, P.R.C.	POINT OF REVERSE CURVE	THK., TH.	THICK
		PROP.	PROPOSED	TYP.	TYPICAL
EL., ELEV.	ELEVATION	PT, P.T.	POINT OF TANGENCY	U.D.	UNDERDRAIN
EXIST.	EXISTING	P.V.C.	POLYVINYL CHLORIDE PIPE,	UP, U.P.	UTILITY POLE
GR.	GRATE		POINT OF VERTICAL CURVATURE	VAR.	VARIABLE, VARIES
HT.	HEIGHT	PVI, P.V.I.	POINT OF VERTICAL INTERSECTION	W.C.V.C.	WHITE CONCRETE VERTICAL CURB
H.W.	HEADWALL	PVT, P.V.T.	POINT OF VERTICAL TANGENCY, PAVEMENT	WM	WATER METER
HYD.	HYDRANT	R	RADIUS	X-SECT	CROSS SECTION
INV.	INVERT				
IP	IRON PIN	RCCP, R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE		

ELECTRICAL PLAN ABBREVIATIONS

CF	CUTOFF LUMINAIRE, TYPE
E	EXPRESSWAY LUMINAIRE
ID	IMAGE DETECTOR
IDC	IMAGE DETECTOR CABLE
JB	JUNCTION BOX FOUNDATION
L	LUMINAIRE
LMA-A	LIGHTING MAST ARM, ALUMINUM
LMA-S	LIGHTING MAST ARM, STEEL
LSA	LIGHTING STANDARD, ALUMINUM
LSF	LIGHTING STANDARD, FIBERGLASS
LSS	LIGHTING STANDARD, STEEL
MAS	MAST ARM SIGN
MSC II	MEDIUM SEMI-CUTOFF LUMINAIRE, TYPE 2
MSC III	MEDIUM SEMI-CUTOFF LUMINAIRE, TYPE 3
PB	PUSH BUTTON
PSH	PEDESTRIAN SIGNAL HEAD
PSS	PEDESTRIAN SIGNAL STANDARD
TSH	TRAFFIC SIGNAL HEAD
TSMA-A	TRAFFIC SIGNAL MAST ARM, ALUMINUM
TSMA-S	TRAFFIC SIGNAL MAST ARM, STEEL
TSS-C	TRAFFIC SIGNAL STANDARD, ALUMINUM "C"
TSS-K	TRAFFIC SIGNAL STANDARD, ALUMINUM "K"
TSS-S	TRAFFIC SIGNAL STANDARD, STEEL
TSS-SC	TRAFFIC SIGNAL STANDARD, STEEL COMBINATION
TSS-T	TRAFFIC SIGNAL STANDARD, ALUMINUM "T"
UL-P	UNDERDECK LIGHTING, TYPE "P"
UL-W	UNDERDECK LIGHTING, TYPE "W"
V	VERTICAL LUMINAIRE



N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS

ROUTE *

CONTRACT NO. *

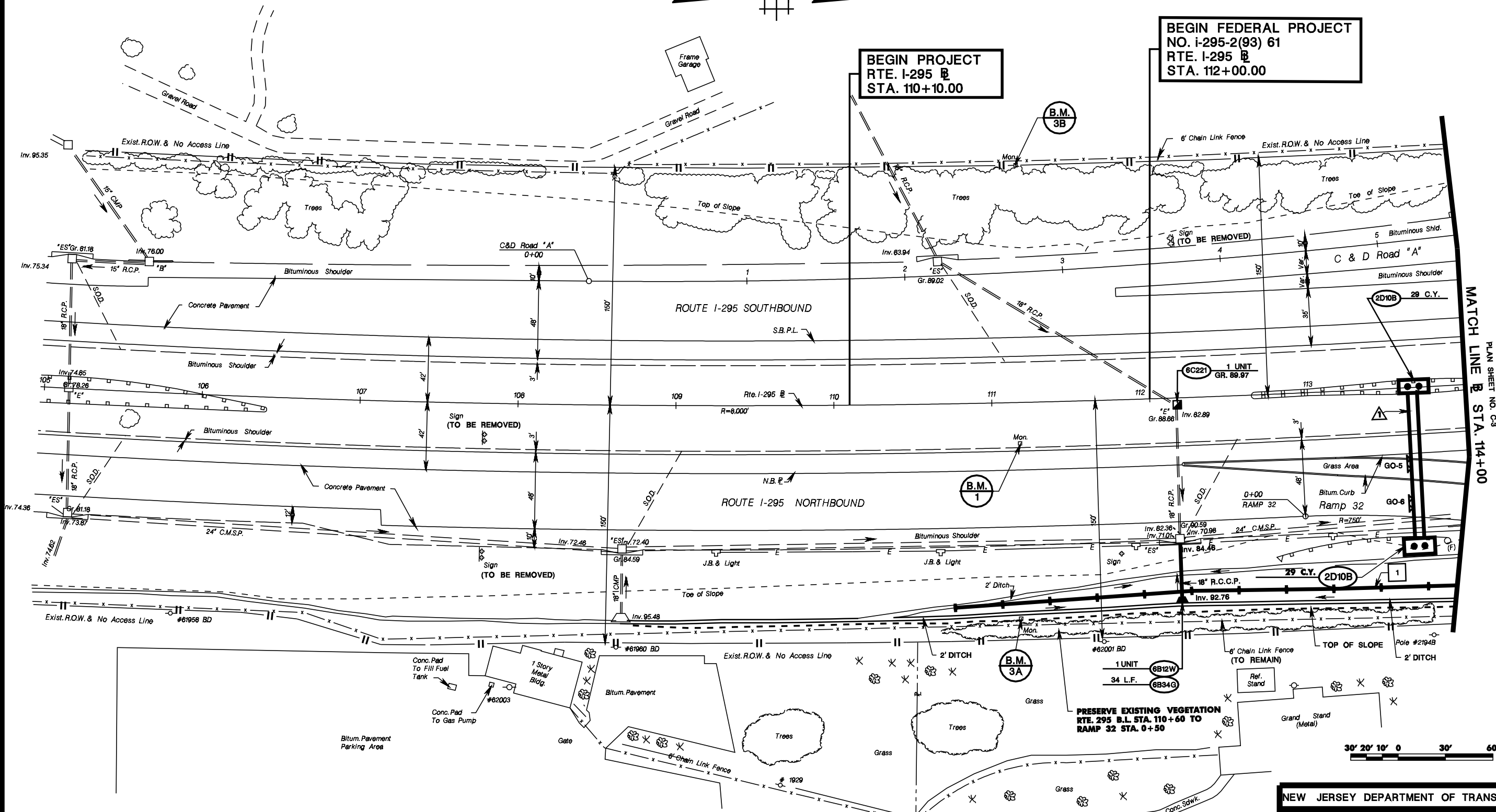
TOWNSHIP OF BORDENTOWN

COUNTY OF BURLINGTON

STATE FEDERAL PROJECT NO.
N.J. I-IR-IG-295-2(93) 61

BEGIN PROJECT
RTE. I-295 @
STA. 110+10.00

BEGIN FEDERAL PROJECT
NO. I-295-2(93) 61
RTE. I-295 @
STA. 112+00.00



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
2D10B	BORROW EXCAVATION, BRIDGE FOUNDATION	58 C.Y.
6B12W	18" REINFORCED CONCRETE END SECTION	1 UNIT
6B34G	18" REINFORCED CONCRETE CULVERT PIPE	34 L.F.
6C221	RESET CASTINGS	1 UNIT

B.M. 1 - USC & GS MON. ROUTE I-295 @ STA. 111+28.75, 25.53' Rt. - Elev. 89.513
B.M. 3A - CONC. MON. ROUTE I-295 @ STA. 111+27.48, 137.15' Rt. - Elev. 95.448
B.M. 3B - CONC. MON. ROUTE I-295 @ STA. 111+30.86, 149.95' Lt. - Elev. 90.508

NO.	DESCRIPTION	STRUCTURE NO.
1	OVERHEAD SIGN STRUCTURE NO. 1	0308-205
1	NOISE BARRIER BORDENTOWN HIGH SCHOOL	

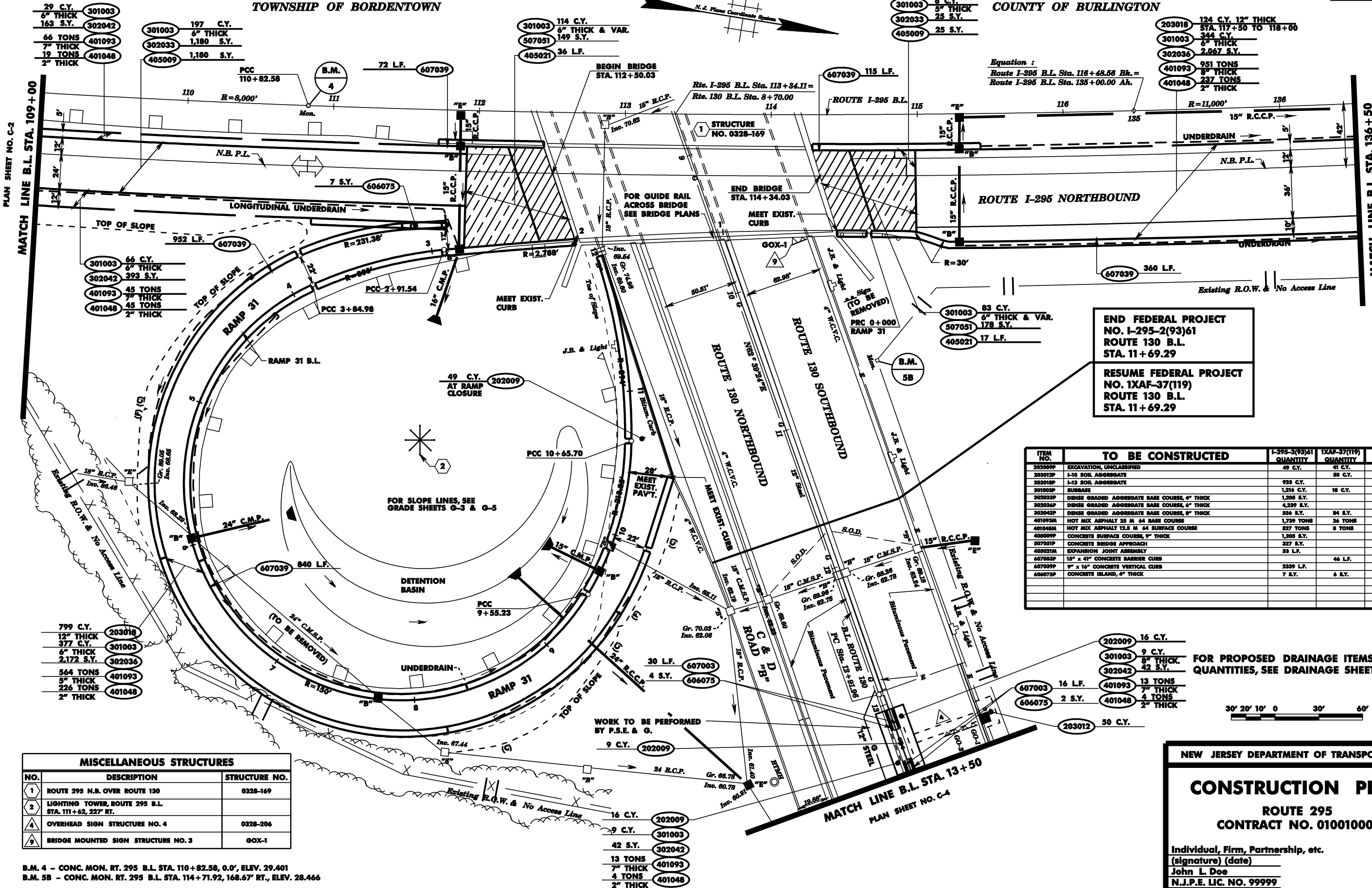
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS
ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

TOWNSHIP OF BORDENTOWN

COUNTY OF BURLINGTON



END FEDERAL PROJECT
NO. I-295-2(93)61
ROUTE 130 B.L.
STA. 11+69.29

RESUME FEDERAL PROJECT
NO. IXAF-37(119)
ROUTE 130 B.L.
STA. 11+69.29

ITEM NO.	TO BE CONSTRUCTED	I-295-2(93)61 QUANTITY	IXAF-37(119) QUANTITY	CONTRACT QUANTITY
202009P	EXCAVATION, UNCLASSIFIED	49 C.Y.	41 C.Y.	90 C.Y.
203012P	I-10 SOIL AGGREGATE		80 C.Y.	80 C.Y.
203018P	I-13 SOIL AGGREGATE	928 C.Y.		928 C.Y.
301003P	SUBBASE	1,216 C.Y.	18 C.Y.	1,216 C.Y.
302033P	DENSE GRADED AGGREGATE BASE COURSE, 4" THICK	1,208 S.Y.		1,208 S.Y.
302042P	DENSE GRADED AGGREGATE BASE COURSE, 4" THICK	4,239 S.Y.		4,239 S.Y.
401093P	DENSE GRADED AGGREGATE BASE COURSE, 8" THICK	556 S.Y.	84 S.Y.	640 S.Y.
401093A	HOT MIX ASPHALT 2.5 IN. 64 BASE COURSE	1,739 TONS	26 TONS	1,745 TONS
401048A	HOT MIX ASPHALT 12.5 IN. 64 SURFACE COURSE	827 TONS	8 TONS	835 TONS
405009P	CONCRETE SURFACE COURSE, 9" THICK	1,208 S.Y.		1,208 S.Y.
507001P	CONCRETE BRIDGE APPROACH	327 S.Y.		327 S.Y.
405021A	EXPANSION JOINT ASSEMBLY	53 L.F.		53 L.F.
607003P	18" x 41" CONCRETE BARRIER CURB		46 L.F.	
607009P	9" x 16" CONCRETE VERTICAL CURB	2339 L.F.		2339 L.F.
606075P	CONCRETE ISLAND, 4" THICK	7 S.Y.	6 S.Y.	13 S.Y.

FOR PROPOSED DRAINAGE ITEMS AND QUANTITIES, SEE DRAINAGE SHEET D-3



MISCELLANEOUS STRUCTURES		
NO.	DESCRIPTION	STRUCTURE NO.
1	ROUTE 295 N.B. OVER ROUTE 130	0328-169
2	LIGHTING TOWER, ROUTE 295 B.L. STA. 111+62, 227' RT.	
4	OVERHEAD SIGN STRUCTURE NO. 4	0328-206
9	BRIDGE MOUNTED SIGN STRUCTURE NO. 3	GOX-1

B.M. 4 - CONC. MON. RT. 295 B.L. STA. 110+82.58, 0.0', ELEV. 29.401
B.M. 5B - CONC. MON. RT. 295 B.L. STA. 114+71.92, 168.67' RT., ELEV. 28.466

NEW JERSEY DEPARTMENT OF TRANSPORTATION

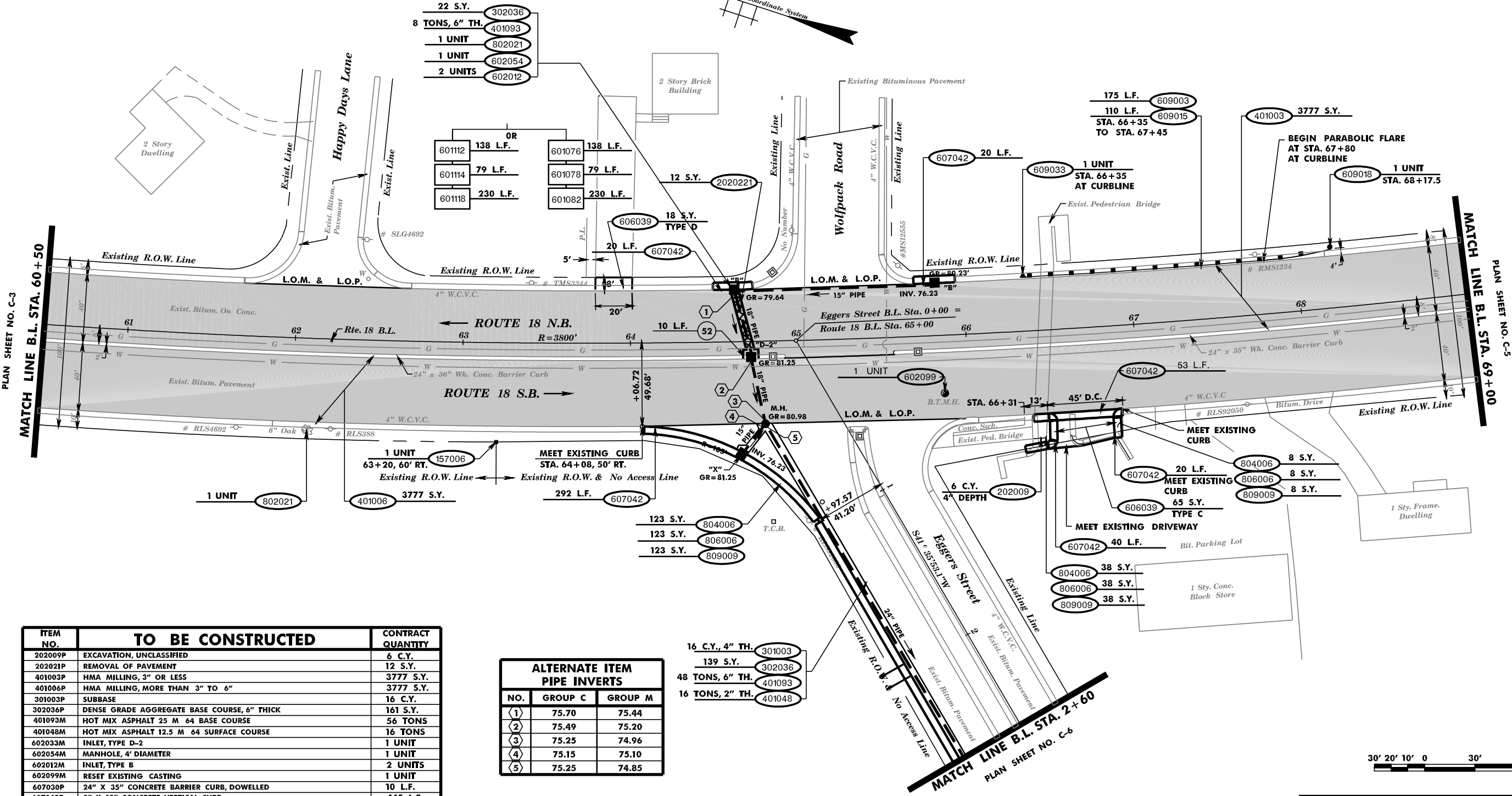
CONSTRUCTION PLAN

ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

TOWNSHIP OF EAST BRUNSWICK

COUNTY OF MIDDLESEX



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
202009P	EXCAVATION, UNCLASSIFIED	6 C.Y.
202021P	REMOVAL OF PAVEMENT	12 S.Y.
401003P	HMA MILLING, 3" OR LESS	3777 S.Y.
401006P	HMA MILLING, MORE THAN 3" TO 6"	3777 S.Y.
301003P	SUBBASE	16 C.Y.
302036P	DENSE GRADE AGGREGATE BASE COURSE, 6" THICK	161 S.Y.
401093M	HOT MIX ASPHALT 25 M 64 BASE COURSE	56 TONS
401048M	HOT MIX ASPHALT 12.5 M 64 SURFACE COURSE	16 TONS
602033M	INLET, TYPE D-2	1 UNIT
602054M	MANHOLE, 4' DIAMETER	1 UNIT
602012M	INLET, TYPE B	2 UNITS
602099M	RESET EXISTING CASTING	1 UNIT
607030P	24" X 35" CONCRETE BARRIER CURB, DOWELLED	10 L.F.
607042P	9" X 18" CONCRETE VERTICAL CURB	445 L.F.
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	72 S.Y.
609003M	BEAM GUIDE RAIL	175 L.F.
609033M	BEAM GUIDE RAIL ANCHORAGE	1 UNIT
609018M	FLARED GUIDE RAIL TERMINAL	1 UNIT
609015M	RUB RAIL	110 L.F.
802021M	TREE REMOVAL, OVER 6" TO 12" DIAMETER	1 UNIT
804006P	TOPSOILING, 4" THICK	169 S.F.
806006P	FERTILIZING AND SEEDING, TYPE A-3	169 S.F.
809009P	STRAW MULCHING	169 S.F.
157006M	MONUMENTS	1 UNIT

ALTERNATE ITEM PIPE INVERTS		
NO.	GROUP C	GROUP M
(1)	75.70	75.44
(2)	75.49	75.20
(3)	75.25	74.96
(4)	75.15	75.10
(5)	75.25	74.85

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
ALTERNATE GROUP C		
601112P	15" REINFORCED CONCRETE PIPE	138 L.F.
601114P	18" REINFORCED CONCRETE PIPE	79 L.F.
601118P	24" REINFORCED CONCRETE PIPE	230 L.F.
ALTERNATE GROUP M		
601076P	15" CORRUGATED METAL PIPE	138 L.F.
601078P	18" CORRUGATED METAL PIPE	79 L.F.
601082P	24" CORRUGATED METAL PIPE	230 L.F.



NEW JERSEY DEPARTMENT OF TRANSPORTATION

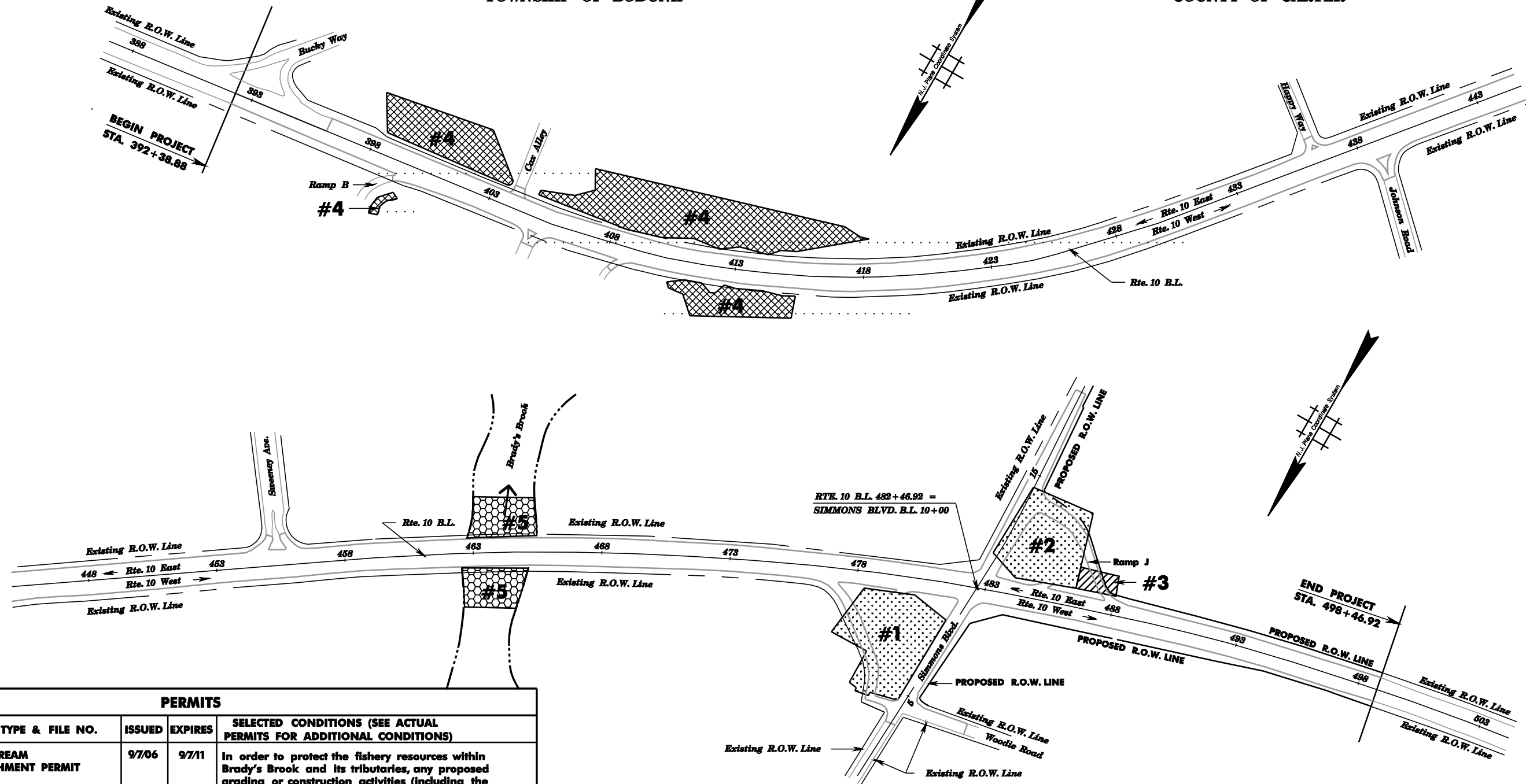
CONSTRUCTION PLAN

ROUTE 18
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

TOWNSHIP OF BODUNK

COUNTY OF CARTER



PERMITS

PERMIT TYPE & FILE NO.	ISSUED	EXPIRES	SELECTED CONDITIONS (SEE ACTUAL PERMITS FOR ADDITIONAL CONDITIONS)
NJDEP STREAM ENCROACHMENT PERMIT NO. XX.	9/7/06	9/7/11	In order to protect the fishery resources within Brady's Brook and its tributaries, any proposed grading or construction activities (including the installation of cofferdams) within the banks of this or any other waterbody on site are prohibited between May 1 and June 30 of each year. In addition, any activity within the 100-year floodplain or flood hazard area draining to the waterbody (ies) that could introduce sediment into said waterbody (ies) or that could cause an increase in the natural level of turbidity is also prohibited during this period. The NJDEP reserves the right to suspend all regulated activities on site should it be determined that proper precautions have not been taken to ensure continuous compliance with these conditions.
NJDEP FRESHWATER WETLANDS GENERAL PERMIT NOS. 10B & 11, MO. WATER QUALITY CERTIFICATION AND TRANSITION AREA WAIVER, FILE NOS. XX AND XX	9/7/06	9/7/11	In addition, Refer to the Environmental Notes and Commitments on Sheet Number XX and the Soil Erosion and Sediment Control General Notes on Sheet Number XX.
NJPDES 5G3 - CONSTRUCTION ACTIVITY STORMWATER GENERAL PERMIT (NJG0088323) (REQUEST FOR AUTHORIZATION (RFA) IS REQUIRED)	3/15/07	2/29/12	

ENVIRONMENTALLY SENSITIVE AREAS

- A SENSITIVE AREAS - ASBESTOS REMOVAL REQUIRED PRIOR TO DEMOLITION. SEE ENVIRONMENTAL PLANS EP-5 AND EP-6
- B SENSITIVE AREA - UNDERGROUND STORAGE TANKS, PRIOR TO DEMOLITION ALL U.S.T.'S MUST BE REMOVED.
- C SENSITIVE AREA - WETLANDS, SEE ENVIRONMENTAL PLANS EP-2 THROUGH EP-4
- D SENSITIVE AREA - STATE OPEN WATERS, SEE ENVIRONMENTAL PLANS EP-7

LEGEND

- #1 - #2 SENSITIVE AREAS - ASBESTOS, SEE ENVIRONMENTALLY SENSITIVE AREA A
- #3 SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SEE ENVIRONMENTALLY SENSITIVE AREA B
- #4 SENSITIVE AREA - WETLANDS, SEE ENVIRONMENTALLY SENSITIVE AREA C
- #5 SENSITIVE AREA - STATE OPEN WATERS, SEE ENVIRONMENTALLY SENSITIVE AREA D

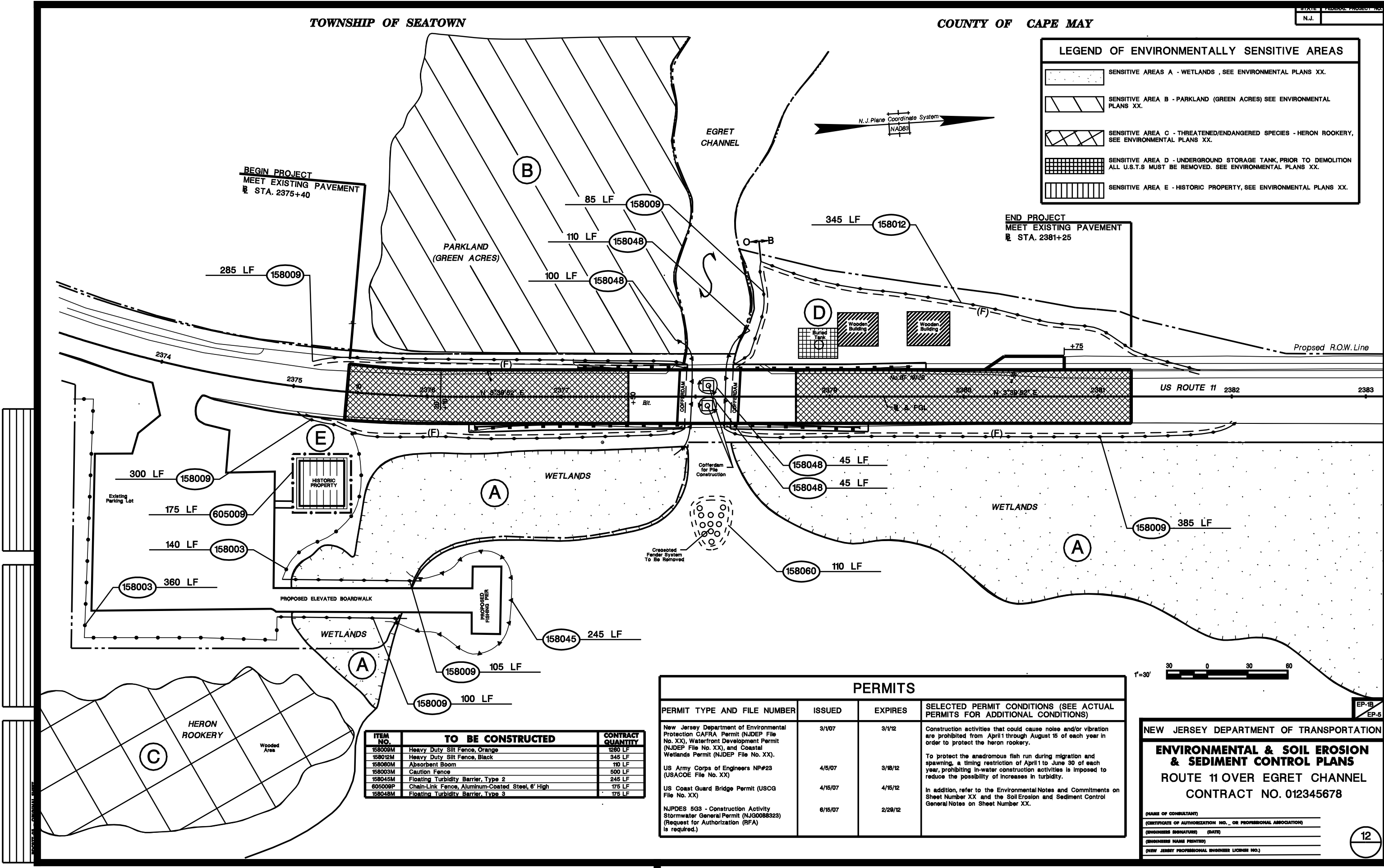
NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION
& SEDIMENT CONTROL PLANS
ROUTE 10 OVER BRADY'S BROOK
CONTRACT NO. 012345678

(NAME OF CONSULTANT)
(CERTIFICATE OF AUTHORIZATION NO., OR PROFESSIONAL ASSOCIATION)
(ENGINEER'S SIGNATURE) (DATE)
(ENGINEER'S NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

LEGEND OF ENVIRONMENTALLY SENSITIVE AREAS

- SENSITIVE AREAS A - WETLANDS, SEE ENVIRONMENTAL PLANS XX.
- SENSITIVE AREA B - PARKLAND (GREEN ACRES) SEE ENVIRONMENTAL PLANS XX.
- SENSITIVE AREA C - THREATENED/ENDANGERED SPECIES - HERON ROOKERY, SEE ENVIRONMENTAL PLANS XX.
- SENSITIVE AREA D - UNDERGROUND STORAGE TANK, PRIOR TO DEMOLITION ALL U.S.T.'S MUST BE REMOVED. SEE ENVIRONMENTAL PLANS XX.
- SENSITIVE AREA E - HISTORIC PROPERTY, SEE ENVIRONMENTAL PLANS XX.



PERMITS

PERMIT TYPE AND FILE NUMBER	ISSUED	EXPIRES	SELECTED PERMIT CONDITIONS (SEE ACTUAL PERMITS FOR ADDITIONAL CONDITIONS)
New Jersey Department of Environmental Protection CAFRA Permit (NJDEP File No. XX), Waterfront Development Permit (NJDEP File No. XX), and Coastal Wetlands Permit (NJDEP File No. XX).	3/1/07	3/1/12	Construction activities that could cause noise and/or vibration are prohibited from April 1 through August 15 of each year in order to protect the heron rookery.
US Army Corps of Engineers NP#23 (USACE File No. XX)	4/5/07	3/18/12	To protect the anadromous fish run during migration and spawning, a timing restriction of April 1 to June 30 of each year, prohibiting in-water construction activities is imposed to reduce the possibility of increases in turbidity.
US Coast Guard Bridge Permit (USCG File No. XX)	4/15/07	4/15/12	In addition, refer to the Environmental Notes and Commitments on Sheet Number XX and the Soil Erosion and Sediment Control General Notes on Sheet Number XX.
NJPDES 5G3 - Construction Activity Stormwater General Permit (NJG0088323) (Request for Authorization (RFA) is required.)	6/15/07	2/28/12	

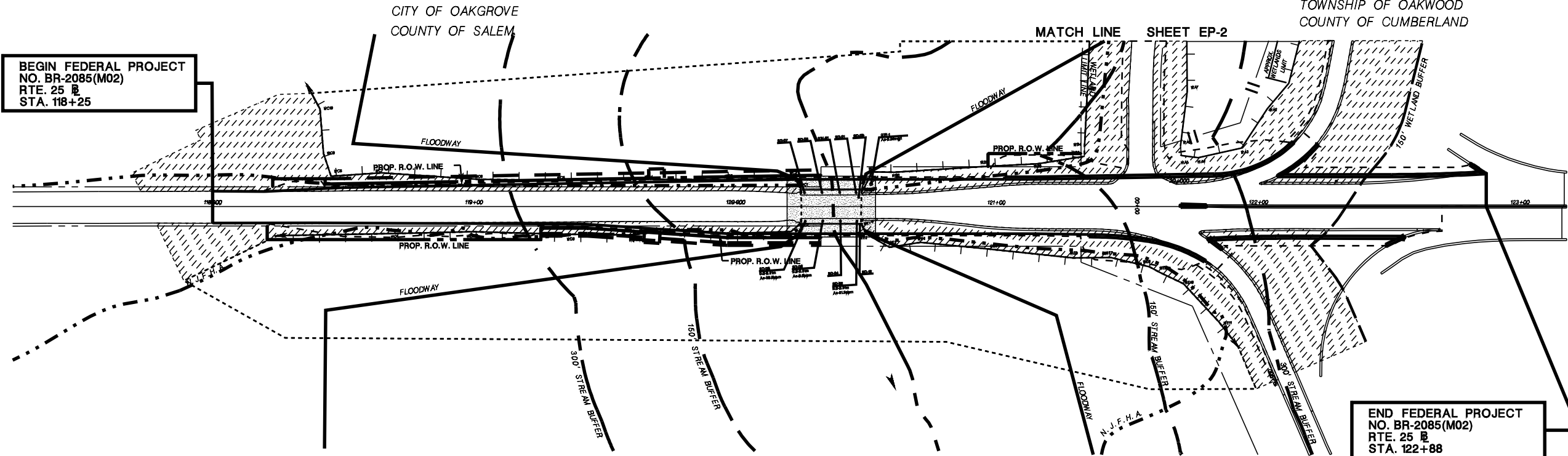
ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158009M	Heavy Duty Silt Fence, Orange	285 LF
158012M	Heavy Duty Silt Fence, Black	345 LF
158060M	Absorbent Boom	110 LF
158003M	Caution Fence	500 LF
158045M	Floating Turbidity Barrier, Type 2	245 LF
605009P	Chain-Link Fence, Aluminum-Coated Steel, 6' High	175 LF
158048M	Floating Turbidity Barrier, Type 3	175 LF

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION
& SEDIMENT CONTROL PLANS
ROUTE 11 OVER EGRET CHANNEL
CONTRACT NO. 012345678

(NAME OF CONSULTANT)
(CERTIFICATE OF AUTHORIZATION NO. OR PROFESSIONAL ASSOCIATION)
(ENGINEER'S SIGNATURE) (DATE)
(ENGINEER'S NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

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ENVIRONMENTALLY SENSITIVE AREAS

- A. SENSITIVE AREA: WETLANDS - SEE ENVIRONMENTAL PLANS EP-3 TO EP-4
- B. SENSITIVE AREA: 150' WETLAND TRANSITION AREA - SEE ENVIRONMENTAL PLANS EP-3 TO EP-8
- C. SENSITIVE AREA: N.J. FLOOD HAZARD AREA - SEE ENVIRONMENTAL PLANS EP-3 TO EP-7
- D. SENSITIVE AREA: FLOODWAY - SEE ENVIRONMENTAL PLANS EP-3 TO EP-8
- E. SENSITIVE AREA: SPECIAL WATER RESOURCE PROTECTION AREA - SEE ENVIRONMENTAL PLANS EP-4 TO EP-8, EP-8
- F. SENSITIVE AREA: REGULATED WASTE (ARSENIC) - SEE ENVIRONMENTAL PLAN EP-4

PERMITS

PERMIT TYPE	NJDEP FILE No.	ISSUED	EXPIRES	CONDITIONS
1. NJDEP FRESHWATER WETLANDS: STATEWIDE GENERAL PERMIT NO. 10B; STATEWIDE GENERAL PERMIT NO. 21; TRANSITION AREA, SPECIAL ACTIVITY WAIVER FOR LINEAR DEVELOPMENT; TRANSITION AREA, SPECIAL ACTIVITY WAIVER FOR STORMWATER MANAGEMENT	0000-05-0018.1 FWW-050001 0000-05-0018.1 FWW-050002 0000-05-0018.1 FWW-050003 0000-05-0018.1 FWW-050004	6/30/05 6/30/05 6/30/05 6/30/05	6/30/10 6/30/10 6/30/10 6/30/10	SEE PERMIT CONDITIONS 1 - 18
2. NJDEP MAJOR STREAM ENHANCEMENT PERMIT AND HARDSHIP WAIVER REQUEST	0000-05-0018.1 FHA-050001	6/30/05	6/30/10	

ENVIRONMENTAL NOTES AND COMMITMENTS

- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND/OR AREA IS STABILIZED.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NJDOT SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- ALL CONSTRUCTION SOIL DISTURBANCES, INCLUDING UTILITY REMOVAL AND INSTALLATION, WHERE SOIL IS SUBJECT TO MOVEMENT OUTSIDE OF PROJECT LIMITS WILL REQUIRE SILT FENCING AROUND THE TEMPORARY CONSTRUCTION DISTURBANCE.
- ALL TERMS AND CONDITIONS OF THE ENVIRONMENTAL PERMITS SHALL BE ADHERED TO. NO CHANGES IN THE CONDITIONS, PLANS OR SPECIFICATIONS SHALL BE MADE EXCEPT WITH THE PRIOR WRITTEN PERMISSION OF THE NJDEP.
- A COPY OF THE PERMITS SHALL BE KEPT AT THE WORK SITE AND SHALL BE EXHIBITED UPON REQUEST OF ANY PERSON.
- AREAS OF TEMPORARY DISTURBANCE SHALL BE RESTORED TO ORIGINAL GRADE AND SHALL BE REPLANTED WITH APPROPRIATE VEGETATION UPON COMPLETION OF CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER IN CONSULTATION WITH THE ENVIRONMENTAL TEAM AND THE LANDSCAPE AND URBAN DESIGN UNIT.
- ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE OF THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY, WILL BE REMOVED IMMEDIATELY. PAVED ROADS AND DRIVEWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- CONTRACTOR IS RESPONSIBLE TO VISIT THE SENSITIVE AREAS PERIODICALLY AND TO INSURE THE EROSION CONTROLS ARE FUNCTIONING PROPERLY AND INTRODUCE ADDITIONAL CONTROL IF IT IS NECESSARY. ALSO, ANY ADDITIONAL EROSION AND SEDIMENTATION THAT OCCURS WITHIN THE PROJECT SITE NEEDS TO BE PROPERLY ADDRESSED.
- GROUNDWATER MONITORING WELLS IN AND NEAR THE CONSTRUCTION ZONE (UNLESS OTHERWISE INDICATED) MUST BE BARRICADED TO PREVENT THEM FROM BEING DAMAGED. ANY WELLS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE TOP 2 FEET OF SEDIMENT IS TO BE HANDLED AS REGULATED WASTE (K032 WASTE - ARSENIC).
- GROUNDWATER AND SURFACE WATER ARE KNOWN TO CONTAIN ARSENIC AND WILL BE HANDLED PER NJDEP REQUIREMENTS.

PERMIT CONDITIONS

1. Method of Construction

-All activities approved by this permit shall be performed under the supervision and direction of a Professional Engineer licensed in the State of New Jersey, and shall be undertaken using the best management practices available. Furthermore, the site shall be subject to inspection at any time by representatives of the Department to ensure the continuous application of the provisions of this permit.

-During the course of construction, neither the applicant nor its agents shall cause or permit any unreasonable interference with the free flow of the stream by placing or dumping any materials, equipment, debris or structures within or adjacent to the stream corridor. Upon completion or abandonment of the work, the applicant and/or its agents shall remove and dispose of in a lawful manner all excess materials, equipment and debris from the stream corridor and adjacent lands.

-All activities authorized by this permit shall be stabilized in accordance with Standards for Soil Erosion and Sediment Control in New Jersey (obtainable from local Soil Conservation District Offices), or equal engineering specifications, to prevent eroded soil and sediment from entering adjacent waterways and wetlands at any time during and subsequent to construction. The Department reserves the right to order the suspension of any activity if unacceptable levels of erosion or turbidity result from the same. Furthermore, the applicant shall maintain the stream corridor as shown on the approved drawings for either such time as is required for the channel and/or banks to become reasonably stabilized, or for one year after completion of the project (as evidenced by a Certificate of Completion), whichever period of time is longer.

2. Any and all precautions shall be taken to prevent raw concrete (e.g., footings and abutments) from coming in contact with the waters of the Legume River since raw concrete is toxic to aquatic biota.

3. In order to protect the trout stocked waters and the recreational use as well as any pickerel and warmwater fish spawning within the Legume River, any proposed grading or construction activities within the banks of this or any other stream on site are prohibited between March 15 and June 30 of each year. In addition, any activity within the 100 year floodplain or flood hazard area of this watercourse which could introduce sediment into said stream or which would cause an increase in the natural level of turbidity is also prohibited during this period. The Department reserves the right to suspend all regulated activities on site should it be determined that the applicant has not taken proper precautions to ensure continuous compliance with this condition.

4. The bridge span shall be sized so that the natural streambed will remain stable under storm flows without the aid of instream armoring. Also, the streambed shall be left intact and any minor disturbances are to be restored using native substrate.

5. Since the project area is in proximity to the Division of Fish and Wildlife's Legume Wildlife Management Area, the Southern Bureau of Lands Management (John Doe, 856-555-5555) shall be informed of the construction schedules a minimum of two weeks prior to the projects implementation.

6. All workers shall be instructed to remove any turtles and/or any wildlife in general out of harms way. Silt fencing should be placed along active construction areas/excavations in order to prevent their access into these areas.

7. Freshwater Wetlands General Permit Nos. 10B, 21 and Special Activity Waivers

-The Transition Area, Special Activity Waiver for Linear Development, authorizes the disturbance of a maximum of 2.284 acres of transition area for road improvements and removal of the existing Legume River Parkway.

-The Transition Area, Special Activity Waiver for Stormwater Management, authorizes the disturbance of a maximum of 0.575 acres of transition area for a stormwater management basin.

-In addition, this permit to conduct a regulated activity in a wetland or open water includes the Department's approval of a Water Quality Certificate for these activities.

8. The total amount of permanent wetland, transition area or State open water disturbance associated with this authorization shall not exceed 3.092 acres.

9. Dewatering of cofferdams must include properly sized temporary sediment basins or other filtering methods to reduce turbidity. The stream area to receive return water discharged from cofferdams must be encompassed by turbidity barrier. The turbidity barrier must be located parallel to the stream banks and anchored to the shoreline to maintain free flow of the stream center. In order to avoid obstruction of stream flows or fish passage, turbidity barriers must not be placed across the stream channel.

10. The amount of riprap or other energy dissipating material placed shall be the minimum necessary to prevent erosion, and shall not exceed 200 cubic yards fill, unless a larger amount is required in order to comply with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90.

11. Areas of temporary excavation must be restored with native, indigenous species. The stream bank must be restored with native vegetation and stabilized with the use of bioengineering materials, such as biologs, fiber matting, etc., except where riprap is required.

12. The upper-most 18-inches of any temporary trench excavation is backfilled with the original soil material if feasible, and otherwise with clean suitable material free from toxic pollutants (see 40 CFR 401) in toxic amounts, and shall comply with all applicable Department rules and specifications regarding use of dredged or fill material. Excavations must be backfilled to the pre-existing elevations, where feasible.

-The area above the excavation must be replanted with indigenous species.

-The activity is designed so as not to interfere with the natural hydraulic characteristics of the wetland and watershed.

13. All substrate removed for construction activities, must be stockpiled outside of freshwater wetlands, transition areas and State open waters. The replaced native substrate must be placed to meet existing stream bottom invert and cross-channel profile as found immediately upstream and downstream of the crossing.

14. The proposed riprap shall be embedded in the stream bed and be concave shaped to concentrate low water flows.

15. Prior to any construction activities, the project site must be surveyed for the presence of Eastern Box turtle, Carpenters frog and Fowlers toad. Any turtles/frogs/toads encountered must be removed from the construction site to safe areas. Immediately following the survey, the construction site must be encompassed by silt fencing or other small mesh fencing to prevent turtles/frogs/toads from re-entering the construction area.

16. In-stream sediment filter bags shall remain in place until all in-water work is complete. These barriers shall be removed once work is complete.

17. Positive means shall be taken to prevent any hot work, debris or construction material from entering the waterway. This includes sand blasting material, paint or epoxy and any concrete by-products. If welding or burning is to take place, some type of flame-proof material shall be the uppermost protective containment material.

18. All pavement/fill removal associated with the existing Legume River Parkway shall be taken down to the natural substrate. The areas outside of the authorized infiltration basin shall be stabilized with a mixture of warm and cool seasonal grasses, containing at least 20% warm seasonal grasses.

LEGEND

- SENSITIVE AREA: WETLANDS - SEE ENVIRONMENTALLY SENSITIVE AREA A
- SENSITIVE AREA: 150' WETLAND TRANSITION AREA - SEE ENVIRONMENTALLY SENSITIVE AREA B
- SENSITIVE AREA: N.J. FLOOD HAZARD AREA - SEE ENVIRONMENTALLY SENSITIVE AREA C
- SENSITIVE AREA: FLOODWAY - SEE ENVIRONMENTALLY SENSITIVE AREA D
- SENSITIVE AREA: 150' STREAM BUFFER - SEE ENVIRONMENTALLY SENSITIVE AREA E
- SENSITIVE AREA: 300' STREAM BUFFER - SEE ENVIRONMENTALLY SENSITIVE AREA E
- SENSITIVE AREA: REGULATED WASTE (ARSENIC) - SEE ENVIRONMENTALLY SENSITIVE AREA F

SUMMARY OF WETLAND IMPACTS - ENTIRE PROJECT

PERMIT NAME	AREA OF IMPACT (WETLANDS)	AREA OF IMPACT (TRANSITION AREA)	TOTALS
STATEWIDE GENERAL PERMIT NO. 10B	0.215 AC.	0.007 AC.	(.222 AC.)
TRANSITION AREA, SPECIAL ACTIVITY WAIVER FOR LINEAR DEVELOPMENT	0.000 AC.	.284 AC.	2.284 AC.
TRANSITION AREA, SPECIAL ACTIVITY WAIVER FOR STORMWATER MANAGEMENT	0.000 AC.	0.575 AC.	0.575 AC.
STATEWIDE GENERAL PERMIT NO. 21 (FOR UTILITY POLES)	0.0007 AC.	0.0005 AC.	0.001 AC.
TOTAL	0.215 AC.	2.876 AC.	3.092 AC.



EP-10
EP-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 25 OVER LEGUME RIVER

CONTRACT NO. 123567486

(NAME OF CONSULTANT)
(CERTIFICATE OF AUTHORIZATION NO., OR PROFESSIONAL ASSOCIATION)
(ENGINEER'S SIGNATURE) (DATE)
(ENGINEER'S NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

33. ENSURE ALL PERSONNEL, EQUIPMENT, AND ANCILLARY SERVICES ARE PROVIDED TO COLLECT, ANALYZE, AND TRANSPORT ENVIRONMENTAL SAMPLES REQUIRED TO CHARACTERIZE CONTAMINATED MATERIAL IN ACCORDANCE WITH THE CURRENT VERSIONS OF THE NUDEP FIELD SAMPLING PROCEDURES MANUAL, NUDEP MANAGEMENT OF EXCAVATED SOILS GUIDELINES, APPENDIX I OF THE NUDEP WASTE CLASSIFICATION FORM, AND ACCORDING TO THE RECYCLING OR DISPOSAL FACILITY ACCEPTING THE WASTE.
34. ENSURE ALL PERSONNEL, MATERIALS AND EQUIPMENT ARE PROVIDED TO PROPERLY STORE AND PROTECT CONTAMINATED MATERIAL AT THE EXCAVATION AND IN TEMPORARY STOCKPILES. LOCATE TEMPORARY STOCKPILES IN DRY AREAS SELECTED BY THE CONTRACTOR AND APPROVED BY THE RE. PLACE STOCKPILES ON PLASTIC SHEETING TO PREVENT MIGRATION OF CONTAMINANTS INTO ADJACENT SOILS, SURFACE WATER, AND GROUNDWATER.
35. ENSURE A POLLUTION PREVENTION AND CONTROL PLAN IS DEVELOPED AND IMPLEMENTED TO MANAGE CONTAMINATED WATER AND GROUNDWATER. DO NOT DISCHARGE CONTAMINATED STORMWATER, GROUNDWATER, SEDIMENTS OR FREE PRODUCT TO LOCAL STORM SEWER SYSTEMS OR WATERWAYS EXCEPT AS AUTHORIZED BY A DISCHARGE APPROVAL OR PERMIT.
36. ENSURE ALL PERSONNEL, MATERIALS AND EQUIPMENT ARE PROVIDED TO MOBILIZE, OPERATE AND MAINTAIN AN OIL-WATER SEPARATOR FOR REMOVAL OF FREE PRODUCT AND CONTAMINATED SEDIMENTS GENERATED DURING DEWATERING ACTIVITIES IN AREAS OF PETROLEUM-CONTAMINATED GROUNDWATER. ENSURE THE OIL-WATER SEPARATOR IS A SELF-CONTAINED, FACTORY ASSEMBLED UNIT CAPABLE OF MEETING ALL DISCHARGE APPROVALS OR PERMITS OBTAINED BY THE CONTRACTOR.
37. ENSURE A MATERIAL HANDLING PLAN IS DEVELOPED AND IMPLEMENTED TO MANAGE CONTAMINATED SOIL.

NOTE TO DESIGNER: IN THE INTEREST OF PROMOTING ENVIRONMENTAL STEWARDSHIP, THE FOLLOWING NOTES SHOULD BE INCLUDED ON ALL PROJECTS (WITH THE EXCEPTION BEING THE NOTE REGARDING CONCRETE WASHOUT SYSTEM, WHICH IS NOT REQUIRED FOR PROJECTS THAT DO NOT INVOLVE THE PLACEMENT OF CONCRETE):

38. STORE PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS IN CONTAINERS IN A DRY COVERED AREA. ENSURE MANUFACTURERS' RECOMMENDED APPLICATION RATES, USES, AND METHODS ARE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE/RUNOFF FROM THE PROJECT LIMITS. STORE PRODUCTS AT A MINIMUM OF 50 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA.

NOTE TO DESIGNER: THE 50 FOOT DISTANCE MAY NEED TO BE INCREASED DEPENDING UPON PROJECT SPECIFIC CONDITIONS/RESTRICTIONS, SUCH AS THE PRESENCE OF EXCEPTIONAL VALUE WETLANDS OR CATEGORY ONE WATERS, WHICH HAVE LARGER BUFFER ZONE REQUIREMENTS.

39. ENSURE THE HANDLING OF WASTE BUILDING MATERIAL, RUBBLE AND OTHER CONSTRUCTION SITE WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, IS IN ACCORDANCE WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.J.S.A. 13:1E-1 ET SEQ., AND ITS IMPLEMENTING RULES AT N.J.A.C. 7:26, 7:26A, AND 7:26G; THE NEW JERSEY PESTICIDE CONTROL CODE AT N.J.A.C. 7:30; THE STATE LITTER STATUTE (N.J.S.A. 13:1E-99.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R. 1926.
40. ENSURE THE PROJECT LIMITS ARE KEPT CLEAN AND FREE OF DEBRIS, TRASH AND LITTER. CONTAIN LITTER AND WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY STORMWATER DISCHARGE/RUNOFF. ENSURE THE PROJECT LIMITS HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ONSITE OR ADJACENT TO THE SITE, AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. ENSURE WASTE IS COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW. IMMEDIATELY CLEANUP SPILLS AT SUCH CONTAINERS SHOULD THEY OCCUR.
41. CONCRETE WASHOUT SYSTEM: CONCRETE WASHOUT WITHIN THE PROJECT LIMITS IS PROHIBITED OUTSIDE OF DESIGNATED AREAS. PROVIDE CONCRETE WASHOUT FACILITY(IES) AS SPECIFIED IN THE CONCRETE WASHOUT SYSTEM SPECIFICATION IN SECTION 158. MORE THAN ONE DESIGNATED CONCRETE WASHOUT FACILITY LOCATION MAY BE NECESSARY DEPENDING ON EASE OF ACCESS AND THE AMOUNT OF CONCRETE BEING POURED AT ONE TIME.

NOTE TO DESIGNER: A PAY ITEM FOR CONCRETE WASHOUT SYSTEM IS REQUIRED ON ALL PROJECTS THAT INVOLVE THE PLACEMENT OF CONCRETE, REGARDLESS OF THE AMOUNT. THE DISTANCE FOR THE LOCATION OF THE CONCRETE WASHOUT FACILITY(IES) FROM ENVIRONMENTALLY SENSITIVE AREAS MAY NEED TO BE GREATER THAN 50 FEET, DEPENDING UPON PROJECT SPECIFIC CONDITIONS/RESTRICTIONS, SUCH AS THE PRESENCE OF EXCEPTIONAL VALUE WETLANDS OR CATEGORY ONE WATERS, AS DESIGNATED BY NJDEP, WHICH HAVE LARGER BUFFER ZONE REQUIREMENTS.

42. **SANITARY SEWAGE/SEPTAGE DISPOSAL:** DISCHARGES OF RAW SANITARY SEWAGE OR SEPTAGE ONSITE ARE STRICTLY PROHIBITED. ENSURE PROPER DISPOSAL OF SANITARY SEWAGE/SEPTAGE. PROVIDE AND MAINTAIN ADEQUATE FACILITIES ADJACENT TO THE WORK SITE FOR ALL WORKERS AND OTHER SANITARY NEEDS.

43. BEFORE THE START OF CONSTRUCTION OPERATIONS, PROVIDE A MINIMUM OF TWO (2) OIL-ONLY EMERGENCY SPILL KITS THAT ARE READILY AVAILABLE WITHIN THE PROJECT LIMITS, WITH EACH KIT CAPABLE OF CLEANING UP AT LEAST 95 GALLONS OF SPILL. ENSURE THE KITS ARE AS SPECIFIED IN THE OIL-ONLY EMERGENCY SPILL KIT SPECIFICATION IN SECTION 158. IMMEDIATELY CONTAIN AND CLEAN UP ALL SPILLS. ENSURE CLEANED UP MATERIALS ARE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS AND AS SPECIFIED IN 202.03.08 OF THE SPECIFICATIONS. REPLACE COMPONENTS OF SPILL KITS AS USED.

NOTE TO DESIGNER: THE NUMBER OF SPILL KITS MAY VARY DEPENDING ON PROJECT SPECIFIC SITE CONDITIONS. THE AMOUNT OF PETROLEUM PRODUCTS AND TYPES OF EQUIPMENT THAT WILL BE ON THE PROJECT SITE, AND EASE OF ACCESS TO THE LOCATION OF THE SPILL KITS. HOWEVER, EACH KIT SHOULD STILL HAVE THE CAPABILITY TO CLEAN UP AT LEAST 95 GALLONS OF SPILL AND A MINIMUM OF TWO (2) KITS IS REQUIRED. THE DESIGNER MAY CONTACT THE BUREAU OF LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL SOLUTIONS FOR GUIDANCE IN DETERMINING THE NUMBER OF SPILL KITS. ADDITIONAL OIL-ONLY EMERGENCY SPILL KIT(S) WILL BE REQUIRED IF A BARGE OR SOME OTHER FLOATING DEVICE IS USED TO TRANSPORT, OR IS USED AS A PLATFORM FOR, CONSTRUCTION MACHINERY. THESE ADDITIONAL SPILL KITS SHALL BE PLACED ON THE BARGE OR FLOATING DEVICE WHILE ON THE PROJECT. IF REFUELING OCCURS ON A BARGE OR FLOATING DEVICE ON A WATERBODY, ABSORBENT BOOMS AND OIL CONTAINMENT BOOMS WILL BE REQUIRED TO SURROUND THE OPERATION. OIL CONTAINMENT BOOMS ARE A SEPARATE PAY ITEM. FOR PROJECTS THAT WILL UTILIZE A BARGE OR FLOATING DEVICE TO TRANSPORT, OR AS A PLATFORM FOR, CONSTRUCTION MACHINERY, THE FOLLOWING TEXT SHOULD BE INCLUDED IN THE SPILL KIT NOTE: "PLACE ADDITIONAL SPILL KITS AND OIL CONTAINMENT BOOMS ON BARGES OR FLOATING DEVICES USED TO TRANSPORT, OR AS A PLATFORM FOR, CONSTRUCTION EQUIPMENT. IF REFUELING OCCURS ON A BARGE OR FLOATING DEVICE ON A WATERBODY, ABSORBENT BOOMS AND OIL CONTAINMENT BOOMS ARE REQUIRED TO SURROUND THE OPERATION." (THE DESIGNER SHOULD SPECIFY THE NUMBER OF KITS AND OIL CONTAINMENT BOOMS TO BE PLACED ON THE BARGES OR FLOATING DEVICES AND THIS NUMBER SHOULD BE STATED IN THE NOTE ON THE PLANS AND INCLUDED IN THE QUANTITIES FOR THE PROJECT.)

44. IF A SPILL OCCURS, IMMEDIATELY CONTAIN IT AND IMMEDIATELY CONTACT THE NJDEP HOTLINE AT 1-877-WARN DEP (1-877-927-6337), AS WELL AS THE RE. CLEAN UP AND REMEDIATE THE SPILL AS DIRECTED BY NJDEP. SUBMIT AN INCIDENT REPORT TO THE RE AS SPECIFIED IN THE OIL-ONLY EMERGENCY SPILL KIT SPECIFICATION IN SECTION 158.
45. DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A.C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL COMPENSATION AND CONTROL ACT, N.J.S.A. 58:10-23.11 ET SEQ., AND OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES FOR DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT N.J.A.C. 7:1E.
46. ENSURE REFUELING OPERATIONS ARE CONDUCTED AT A MINIMUM OF 50 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. DO NOT STORE FUEL TANKS CLOSER THAN 50 FEET, WHERE FEASIBLE, FROM THESE SENSITIVE AREAS. IMMEDIATELY REPAIR LEAKING EQUIPMENT OR REMOVE IT FROM THE PROJECT LIMITS. CLEAN UP THE TANKED MATERIAL AND DISPOSE OF THE MATERIAL AS SPECIFIED IN 202.03.08 OF THE SPECIFICATIONS. PROTECT FUELING AREAS FROM RUN-ON AND RUNOFF.

NOTE TO DESIGNER: THE 50 FOOT DISTANCE MAY NEED TO BE INCREASED DEPENDING UPON PROJECT SPECIFIC CONDITIONS/RESTRICTIONS, SUCH AS THE PRESENCE OF EXCEPTIONAL VALUE WETLANDS OR CATEGORY ONE WATERS, WHICH HAVE LARGER BUFFER ZONE REQUIREMENTS. ALSO, SEE THE NOTE TO DESIGNER, REGARDING THE SPILL KIT ENVIRONMENTAL NOTE, FOR PROJECTS INVOLVING REFUELING THAT WILL OCCUR ON A BARGE OR FLOATING DEVICE ON A WATERBODY.

47. ENVIRONMENTAL COMPLIANCE INSPECTIONS (INCLUDING, BUT NOT LIMITED TO, SOIL EROSION AND SEDIMENT CONTROL MEASURES, WATER QUALITY MEASURES, AND SITE WASTE CONTROL OPERATIONS) ARE TO BE PERFORMED BY THE CONTRACTOR AND THE RE AS SPECIFIED IN SECTION 158 OF THE SPECIFICATIONS. COMPLETE THE NDOT ENVIRONMENTAL COMPLIANCE CHECKLIST AND INSPECTION FORM FOR EACH INSPECTION AND RETAIN THE ORIGINAL WITHIN THE PROJECT LIMITS. MAKE THE FORM AVAILABLE UPON REQUEST.

PERMITS BOX

NOTE TO DESIGNER: IN ADDITION TO LISTING THE PERMITS THAT ARE SPECIFICALLY ISSUED FOR A PROJECT, REFERENCE TO THE NJPDES 563 CONSTRUCTION ACTIVITY STORMWATER GENERAL PERMIT (NJG0088323) SHOULD BE INCLUDED IN THE PERMITS BOX IF THE PROJECT DISTURBS ONE ACRE OR MORE OF LAND. THIS PERMIT REGULATES STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATION ACTIVITIES. THE PERMIT SHOULD BE REFERENCED AS FOLLOWS: "NJPDES 563 - CONSTRUCTION ACTIVITY STORMWATER GENERAL PERMIT (NJG0088323) (REQUEST FOR AUTHORIZATION (RFA) IS REQUIRED.)"

EXCEPTION: THE PERMIT IS NOT APPLICABLE TO ROUTINE MAINTENANCE PROJECTS THAT ARE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, OR ORIGINAL PURPOSE OF THE FACILITY THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE OF LAND AND LESS THAN FIVE ACRES. HOWEVER, IN AN EFFORT TO PROMOTE ENVIRONMENTAL STEWARDSHIP, THE CONCRETE WASHOUT (IF THE PROJECT INVOLVES THE PLACEMENT OF CONCRETE), SPILL KIT, AND INSPECTION REQUIREMENTS ARE TO BE IMPLEMENTED ON ALL NJDOT PROJECTS, REGARDLESS OF THE SIZE OF LAND DISTURBANCE.

NOTE TO DESIGNER: INCLUDE THE FOLLOWING NOTE AS THE LAST ITEM IN THE SELECTED CONDITIONS COLUMN OF THE PERMITS BOX: "IN ADDITION, REFER TO THE ENVIRONMENTAL NOTES AND COMMITMENTS ON SHEET NUMBER __ AND THE SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES ON SHEET NUMBER ___." IF THE SOIL EROSION AND SEDIMENT CONTROL PLANS ARE SEPARATE FROM THE ENVIRONMENTAL PLANS, ALSO REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLANS.

NOTE TO DESIGNER:

THIS SHEET REQUIRES DESIGN SPECIFIC INFORMATION TO BE ADDED AND INCLUDED IN THE CONTRACT PLANS. THESE NOTES CAN BE AMENDED/OMITTED TO REFLECT PROJECT SPECIFIC CONDITIONS. ADDITIONAL NOTES MAY BE NEEDED.

**COORDINATE WITH NJDOT BUREAU OF
LANDSCAPE ARCHITECTURE AND
ENVIRONMENTAL SOLUTIONS
WHEN DEVELOPING THE NOTES FOR A
SPECIFIC PROJECT.**

REMOVE THIS NOTE AND OTHER DESIGNER
NOTES AFTER DESIGN SPECIFIC INFORMATION
IS ADDED.

ENVIRONMENTAL NOTES AND COMMITMENTS

N.T.S.

EP-3
EP-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

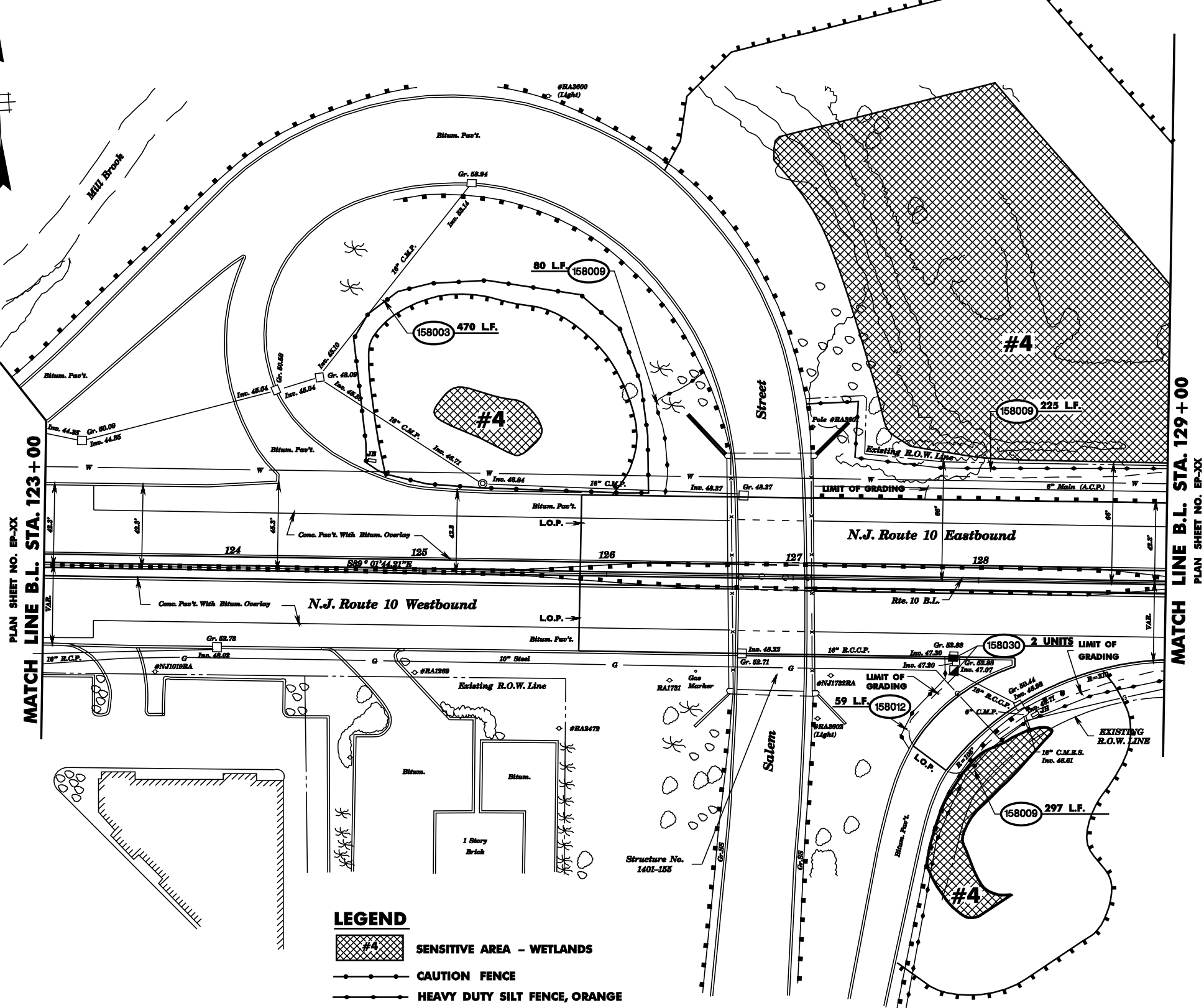
ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 25 OVER LEGUME RIVER
CONTRACT NO.123567486

(NAME OF CONSULTANT)
(CERTIFICATE OF AUTHORIZATION NO. _ OR PROFESSIONAL ASSOCIATION)
(ENGINEERS SIGNATURE) (DATE)
(ENGINEERS NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

Soil Erosion and Sediment Control General Notes:

1. Ensure that all Soil Erosion and Sediment Control measures are in accordance with the "New Jersey Department of Transportation Standards for Soil Erosion and Sediment Control" and the Standard Specifications for Road and Bridge Construction.
2. Install all Soil Erosion and Sediment Control measures prior to major soil disturbance or construction operations. Clear proposed construction areas only as required. Install caution fence and silt fence or orange heavy duty silt fence prior to grubbing, clearing, or other earth disturbing construction operations. Protect inlets with inlet filters prior to initial site disturbance and construct construction driveways in accordance with Section 160 (20) of the standard Specifications. Maintain and inspect Soil Erosion and Sediment Control measures and site waste control measures at least weekly, and after weather events that could cause erosion or damage to Soil Erosion and Sediment Control measures and in 24-hour intervals if a prolonged storm until permanent stabilization is established.
3. Install and employ additional control measures beyond those necessary during construction under direction of RE. These additional control measures are required when erosion occurs along the edges of the pavement or in order to control sediment.
4. Apply temporary seeding with straw mulch (or suitable equivalent) to any disturbed area that will be left exposed for more than fourteen (14) days and is not subject to construction traffic.
5. Include permanent grass seeding and provide temporary seeding, when the site is being prepared for permanent vegetative stabilization. Non-vegetative means of permanent ground stabilizations must be employed when removal or treatment of the soil will not provide suitable conditions.
6. Seed or sod all exposed areas within ten (10) days after the final grading for permanent vegetation control. Protect seeded areas with mulch until turf is established.
7. Submit revisions to the Certified Soil Erosion and Sediment Control Plans to NJDOT for approval. These revised plans must meet all current NJDOT Soil Erosion and Sediment Control Standards. The contractor shall also remediate any erosion or sediment problems from ongoing construction.
8. The contractor is responsible for any erosion or sedimentation that occurs below the stormwater outfalls, or offsite, as a result of any construction on the project. Do not discharge effluent from dewatering directly into any waterway.
9. The contractor must be in accordance with the Standards for High Acid-Producing Soil. Cover soil having a pH of 4 or less, or containing iron sulphides, with a layer of limestone, and a minimum of twelve (12) inches of soil having a pH of 5 or more prior to seedbed preparation and a minimum of twenty four(24) inches for tree and shrub planting areas and structures.



LEGEND

- #4 SENSITIVE AREA - WETLANDS
- CAUTION FENCE
- HEAVY DUTY SILT FENCE, ORANGE
- HEAVY DUTY SILT FENCE, BLACK
- WETLAND TRANSITION AREA BOUNDARY

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158012M	HEAVY DUTY SILT FENCE, BLACK	59 L.F.
158030M	INLET FILTERS, TYPE 2' 2' X 4'	2 UNITS
158003M	CAUTION FENCE	470 L.F.
158009M	HEAVY DUTY SILT FENCE, ORANGE	602 L.F.



EP-4
EP-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ENVIRONMENTAL & SOIL EROSION
& SEDIMENT CONTROL PLANS**
ROUTE 10 OVER BRADY'S BROOK
CONTRACT NO. 123567486

(NAME OF CONSULTANT)
(CERTIFICATE OF AUTHORIZATION NO., OR PROFESSIONAL ASSOCIATION)
(DESIGNER'S SIGNATURE) (DATE)
(DESIGNER'S NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)

CITY OF NORTHFIELD

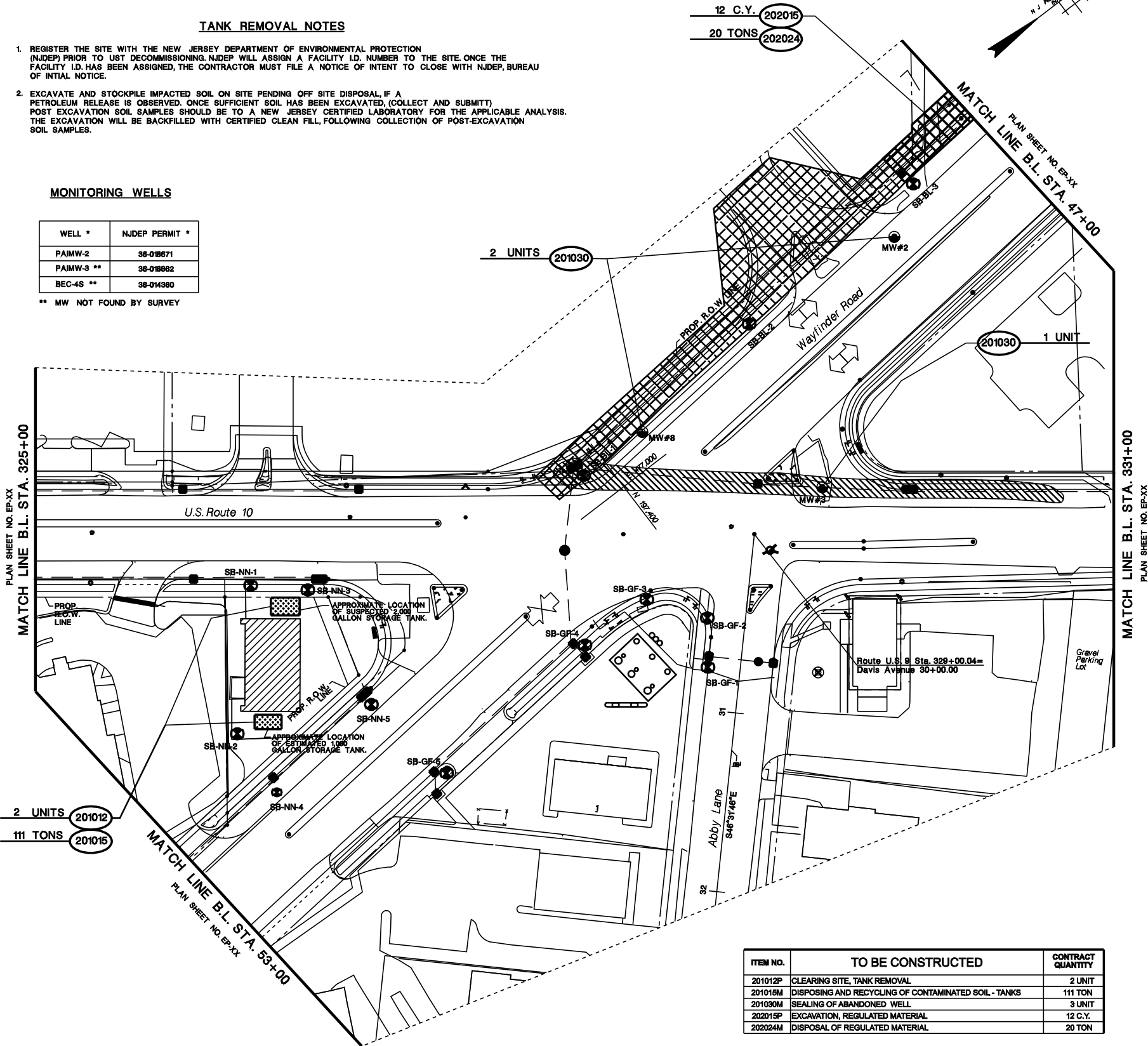
TANK REMOVAL NOTES

- REGISTER THE SITE WITH THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP) PRIOR TO UST DECOMMISSIONING. NJDEP WILL ASSIGN A FACILITY I.D. NUMBER TO THE SITE ONCE THE FACILITY I.D. HAS BEEN ASSIGNED, THE CONTRACTOR MUST FILE A NOTICE OF INTENT TO CLOSE WITH NJDEP, BUREAU OF INITIAL NOTICE.
- EXCAVATE AND STOCKPILE IMPACTED SOIL ON SITE PENDING OFF SITE DISPOSAL, IF A PETROLEUM RELEASE IS OBSERVED. ONCE SUFFICIENT SOIL HAS BEEN EXCAVATED, (COLLECT AND SUBMIT) POST EXCAVATION SOIL SAMPLES SHOULD BE TO A NEW JERSEY CERTIFIED LABORATORY FOR THE APPLICABLE ANALYSIS. THE EXCAVATION WILL BE BACKFILLED WITH CERTIFIED CLEAN FILL, FOLLOWING COLLECTION OF POST-EXCAVATION SOIL SAMPLES.

MONITORING WELLS

WELL *	NJDEP PERMIT *
PAIMW-2	38-018671
PAIMW-3 **	38-018662
BEC-4S **	38-014380

** MW NOT FOUND BY SURVEY



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
201012P	CLEARING SITE, TANK REMOVAL	2 UNIT
201015M	DISPOSING AND RECYCLING OF CONTAMINATED SOIL - TANKS	111 TON
201030M	SEALING OF ABANDONED WELL	3 UNIT
202015P	EXCAVATION, REGULATED MATERIAL	12 C.Y.
202024M	DISPOSAL OF REGULATED MATERIAL	20 TON

ATLANTIC COUNTY

GENERAL NOTES

- PREPARE, SUBMIT, AND IMPLEMENT A SITE SPECIFIC HEALTH AND SAFETY PLAN IN ACCORDANCE WITH ALL APPLICABLE HEALTH AND SAFETY REQUIREMENTS FOR WORK IN AND WITH CONTAMINATED SOIL, SEDIMENT, WASTE AND WATER AND THE MAJOR LANDFILL DISRUPTION APPROVAL. THE PLAN SHALL GOVERN ALL HEALTH AND SAFETY FACETS OF THE PROJECT CONSTRUCTION AND ENCOMPASS THE ACTIVITIES OF ALL PERSONS WHO ENTER THE SITE.
- PROVIDE ALL PERSONNEL, EQUIPMENT, AND ANCILLARY SERVICES TO COLLECT, ANALYZE, AND TRANSPORT ENVIRONMENTAL SAMPLES REQUIRED TO CHARACTERIZE CONTAMINATED MATERIAL IN ACCORDANCE WITH THE CURRENT VERSIONS OF THE NJDEP FIELD SAMPLING PROCEDURES MANUAL, NJDEP MANAGEMENT OF EXCAVATED SOILS GUIDELINES, APPENDIX 1 OF THE NJDEP WASTE CLASSIFICATION FORM, AND ACCORDING TO THE RECYCLING OR DISPOSAL FACILITY ACCEPTING THE WASTE.
- PROVIDE ALL PERSONNEL, MATERIALS AND EQUIPMENT TO PROPERLY STORE AND PROTECT CONTAMINATED MATERIALS AT THE EXCAVATION AND IN TEMPORARY STOCKPILES. SELECT ALL TEMPORARY STOCKPILE LOCATIONS AND APPROVED BY THE RE. TEMPORARY STOCKPILE LOCATIONS SHALL BE LOCATED IN DRY AREAS AND BE PLACED ON PLASTIC SHEETING, TO PREVENT MIGRATION OF CONTAMINANTS INTO ADJACENT SOILS, SURFACE WATER, AND GROUNDWATER.
- DEVELOP AND IMPLEMENT A POLLUTION PREVENTION AND CONTROL PLAN TO MANAGE CONTAMINATED WATER AND GROUNDWATER, CONTAMINATED STORMWATER, SEDIMENTS OR FREE PRODUCT SHALL NOT BE DISCHARGED TO LOCAL STORM SEWER SYSTEMS OR WATERWAYS EXCEPT AS AUTHORIZED BY A DISCHARGE APPROVAL OR PERMIT.
- PROVIDE PERSONNEL, MATERIALS AND EQUIPMENT TO MOBILIZE, OPERATE AND MAINTAIN AN OIL-WATER SEPARATOR FOR REMOVAL OF FREE PRODUCT AND CONTAMINATED SEDIMENTS GENERATED DURING DEWATERING ACTIVITIES IN AREAS OF PETROLEUM-CONTAMINATED GROUNDWATER. OBTAIN PERMITS OR FACTORY ASSEMBLED UNITS CAPABLE OF MEETING ALL DISCHARGE APPROVALS OF SELF CONTAINED THE OIL-WATER SEPARATOR.
- DEVELOP AND IMPLEMENT A MATERIAL HANDLING PLAN TO MANAGE CONTAMINATED SOIL.

SOIL SAMPLING RESULTS

(Results in parts per million (ppm).)

SAMPLE	SB-GF-1	SB-GF-2	SB-GF-3	SB-GF-4	RDCSCC	NRDCSCC	IGWSCC
DEPTH OF SAMPLE (FT)	4.5-5.0	5.0-5.5	5.0-5.5	5.5-6.0			
TPHCs	49	13	8	66	1,000	1,000	1,000
VO+10	ND	ND	ND	ND	CS	CS	CS

(Results in parts per million (ppm).)

SAMPLE	SB-BL-1	SB-BL-2*	SB-BL-3	RDCSCC	NRDCSCC	IGWSCC
DEPTH OF SAMPLE (FT)	4.5-5.0	3.0-3.5	4.5-5.0			
TPHCs	*5.2	22	*5.1	1,000	1,000	1,000
TOLUENE	ND	0.17	ND	1,000	1,000	500
ETHYLBENZENE	ND	1.78	0.15	1,000	1,000	100
XYLENES (TOTAL)	ND	14.4	0.17	410	1,000	67
TICs (TOTAL)	ND	17.3	11.4	1,000	1,000	1,000

* SOIL SAMPLE SB-BL-2 EXHIBITED DISCOLORATION AND A PETROLEUM ODOR.

(Results in parts per million (ppm).)

SAMPLE	SB-NN-1	SB-NN-2	SB-NN-3	SB-NN-4	SB-NN-5	RDCSCC	NRDCSCC	IGWSCC
DEPTH OF SAMPLE (FT)	6.0-6.5	6.0-6.5	3.0-0.5	6.0-6.5	6.0-6.5			
TPHCs	*5.4	2,545	483	*5.3	*5.4	1,000	1,000	1,000
VO*10	ND	ND	ND	ND	ND	CS	CS	CS

RDCSCC - Residential Direct Contact Soil Cleanup Criteria
NRDCSCC - Nonresidential Direct Contact Soil Cleanup Criteria
IGWSCC - Impact to Groundwater Soil Cleanup Criteria
1,000 ppm is the action level
TPHCs - Total Petroleum Hydrocarbons
ND - Notdetected
CS - Compound Specific
TICs - Tentatively Identified Compounds

LEGEND

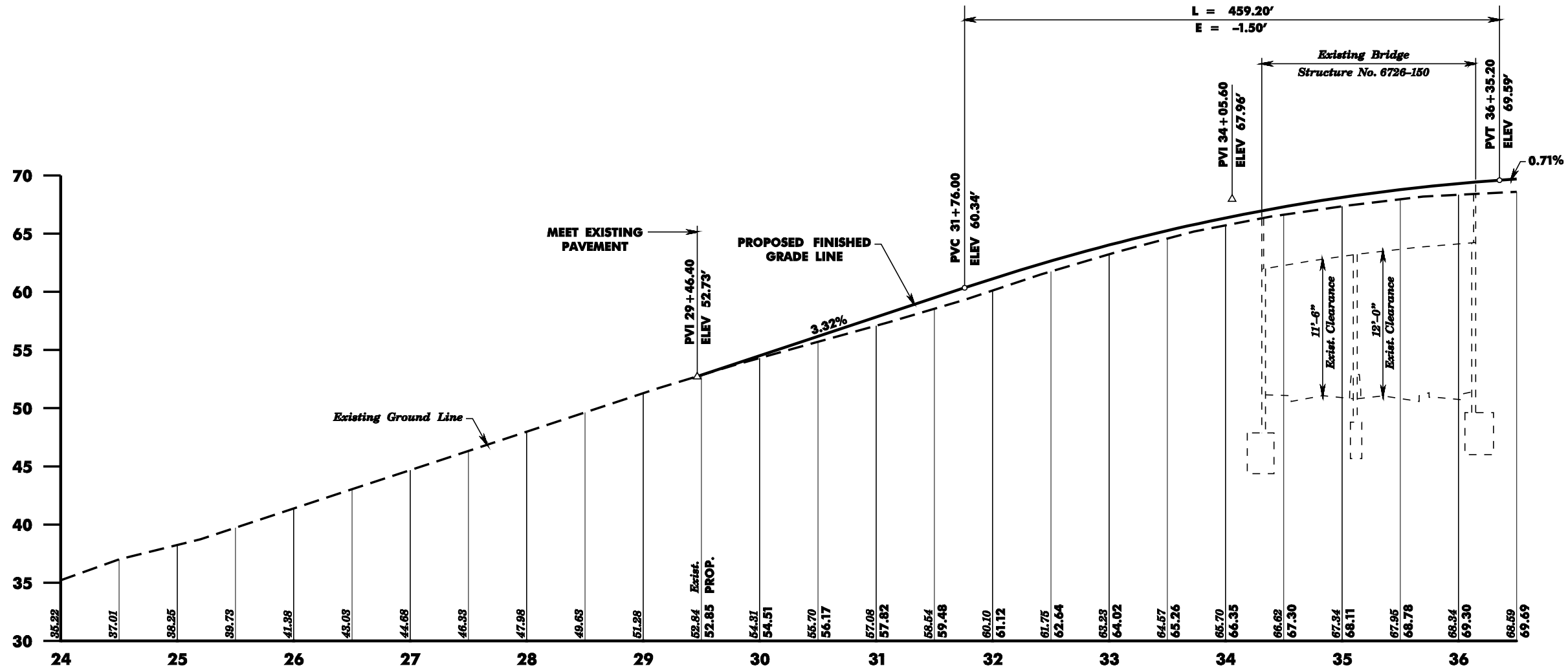
- SENSITIVE AREA - GROUNDWATER CONTAMINATION
- AREA OF REGULATED WASTE
- UST LOCATION, TO BE REMOVED
- SOIL SAMPLE LOCATION
- MONITORING WELL

NEW JERSEY DEPARTMENT OF TRANSPORTATION

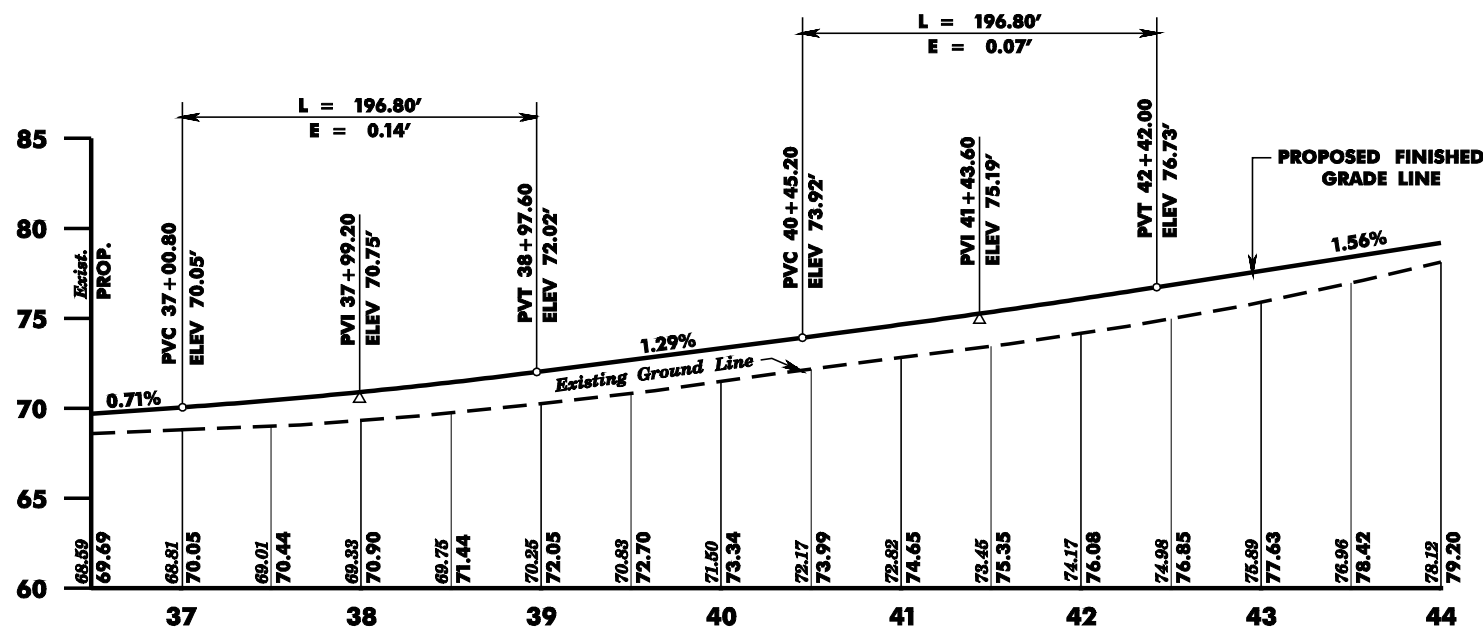
ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 10 OVER WAYFINDER ROAD
CONTRACT NO. 123567486

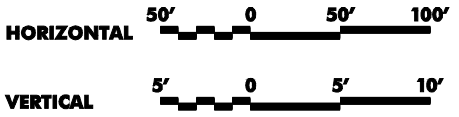
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(CERTIFICATE OF AUTHORIZATION NO. OR PROFESSIONAL ASSOCIATION)
(ENGINEER SIGNATURE) (DATE)
(ENGINEER NAME PRINTED)
(NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.)



ROUTE 295



ROUTE 295

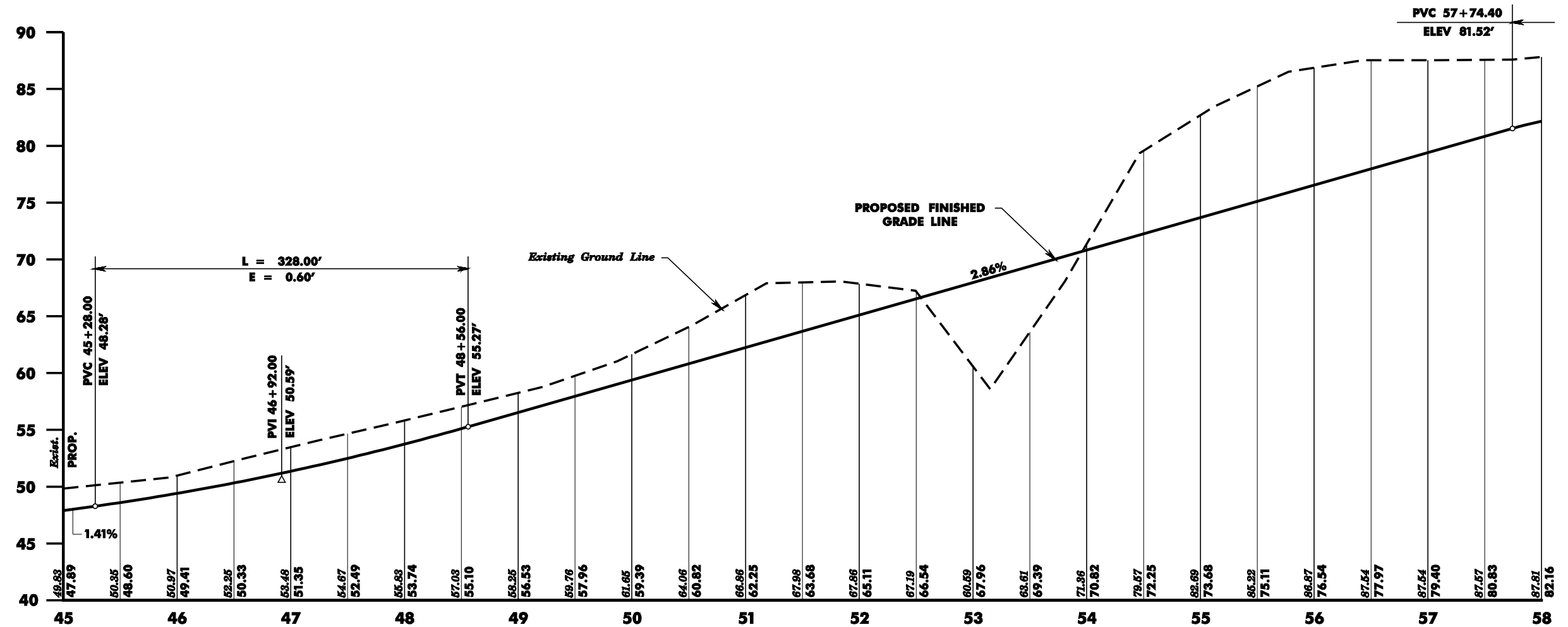


NOTE:
E=DIFFERENCE BETWEEN THE P.V.I. ELEVATION
AND THE VERTICAL CURVE ELEVATION AT
THE P.V.I. STATION.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

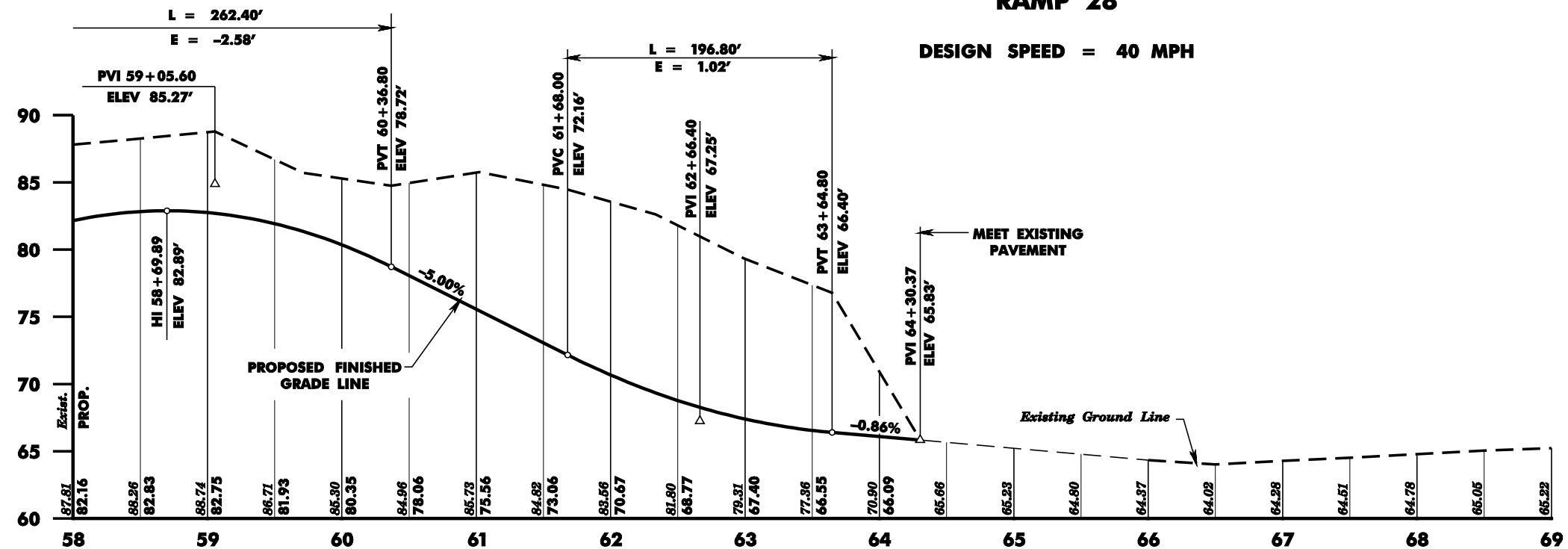
PROFILES
ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

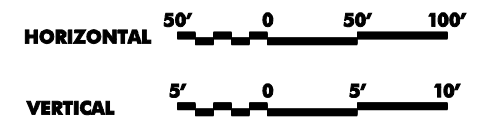


RAMP 28

DESIGN SPEED = 40 MPH



RAMP 28



NEW JERSEY DEPARTMENT OF TRANSPORTATION

PROFILES

ROUTE 295

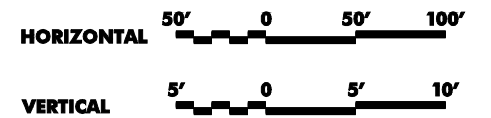
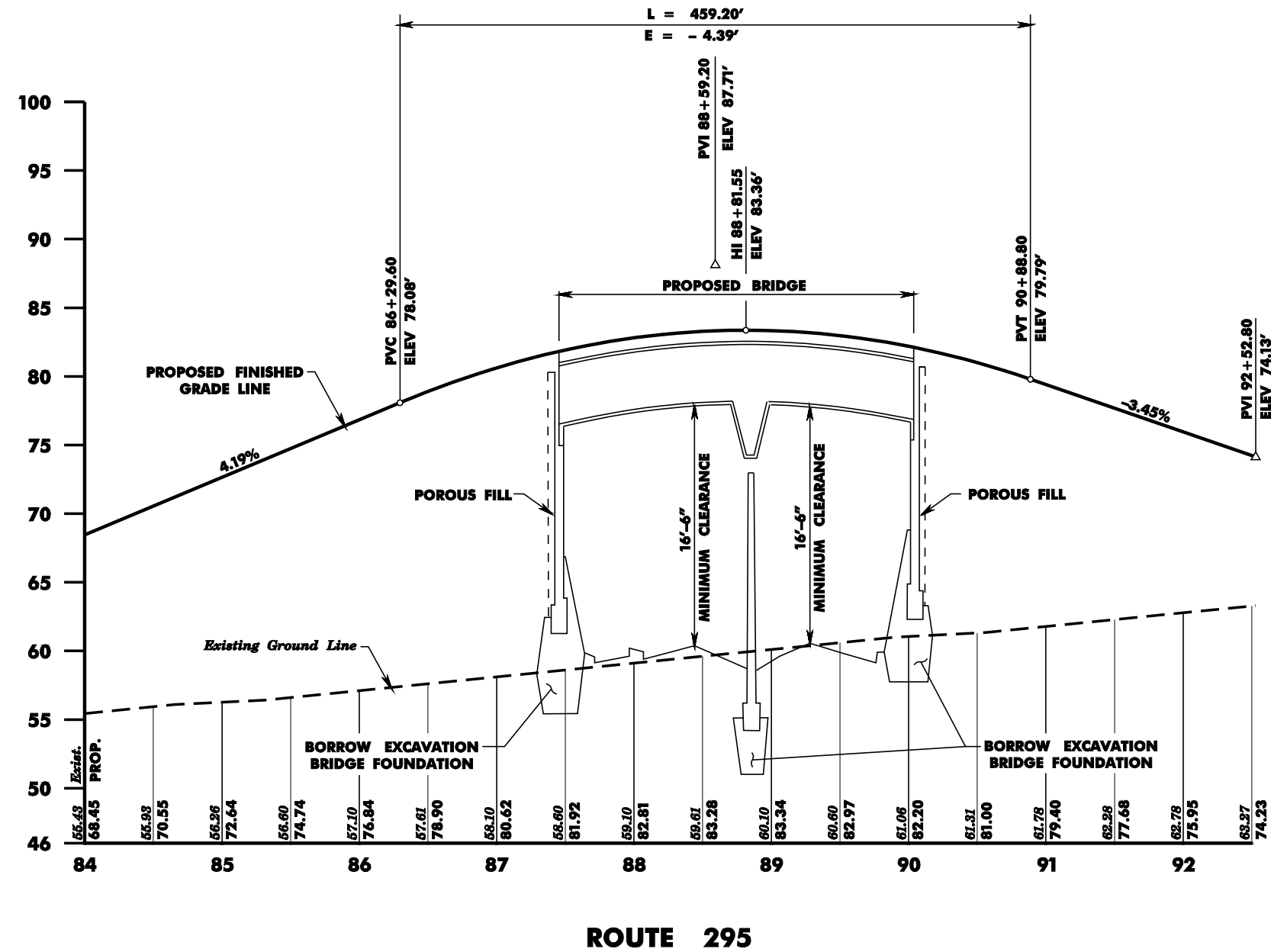
CONTRACT NO. 010010001

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(signature) (date)

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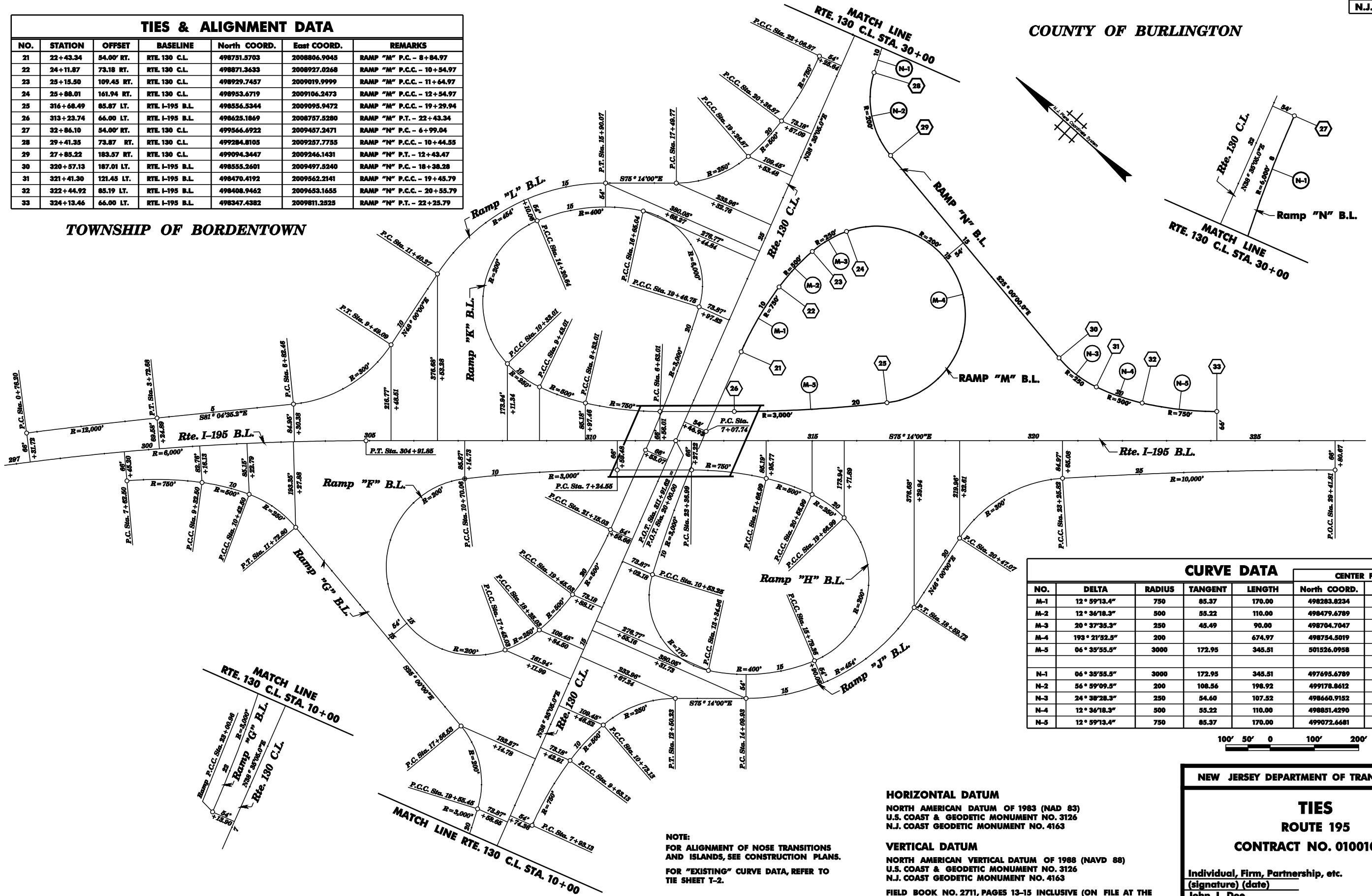


TIES & ALIGNMENT DATA

NO.	STATION	OFFSET	BASELINE	North COORD.	East COORD.	REMARKS
21	22+43.34	54.00' RT.	RTE. 130 C.L.	498751.5703	2008806.9045	RAMP "M" P.C. - 8+84.97
22	24+11.87	73.18 RT.	RTE. 130 C.L.	498871.3633	2008927.0268	RAMP "M" P.C.C. - 10+54.97
23	25+15.50	109.43 RT.	RTE. 130 C.L.	498929.7457	2009019.9999	RAMP "M" P.C.C. - 11+64.97
24	25+88.01	161.94 RT.	RTE. 130 C.L.	498953.6719	2009106.2473	RAMP "M" P.C.C. - 12+54.97
25	316+68.49	85.87 LT.	RTE. I-195 B.L.	498556.5344	2009095.9472	RAMP "M" P.C.C. - 19+29.94
26	313+23.74	66.00 LT.	RTE. I-195 B.L.	498625.1869	2008757.5280	RAMP "M" P.T. - 22+43.34
27	32+86.10	54.00' RT.	RTE. 130 C.L.	499566.6922	2009457.2471	RAMP "N" P.C. - 6+99.04
28	29+41.35	73.87 RT.	RTE. 130 C.L.	499284.8105	2009257.7755	RAMP "N" P.C.C. - 10+44.55
29	27+85.22	183.57 RT.	RTE. 130 C.L.	499094.3447	2009246.1431	RAMP "N" P.T. - 12+43.47
30	320+57.13	187.01 LT.	RTE. I-195 B.L.	498555.2601	2009497.5240	RAMP "N" P.C. - 18+38.28
31	321+41.30	121.45 LT.	RTE. I-195 B.L.	498470.4192	2009562.2141	RAMP "N" P.C.C. - 19+45.79
32	322+44.92	85.19 LT.	RTE. I-195 B.L.	498408.9462	2009653.1655	RAMP "N" P.C.C. - 20+55.79
33	324+13.46	66.00 LT.	RTE. I-195 B.L.	498347.4382	2009811.2525	RAMP "N" P.T. - 22+25.79

TOWNSHIP OF BORDENTOWN

COUNTY OF BURLINGTON



CURVE DATA					CENTER POINT	
NO.	DELTA	RADIUS	TANGENT	LENGTH	North COORD.	East COORD.
M-1	12° 59'13.4"	750	85.37	170.00	498283.8234	2009393.1723
M-2	12° 36'18.3"	500	55.22	110.00	498479.6789	2009237.7855
M-3	20° 37'35.3"	250	45.49	90.00	498704.7047	2009124.3653
M-4	193° 21'52.5"	200	674.97	498754.5019	2009124.3698	
M-5	06° 35'55.5"	3000	172.95	345.51	501526.0958	2009522.1785
N-1	06° 35'55.5"	3000	172.95	345.51	497695.6789	2011802.3009
N-2	56° 59'09.5"	200	108.56	198.92	499178.8612	2009427.4122
N-3	24° 38'28.3"	250	54.60	107.52	498660.9152	2009724.1061
N-4	12° 36'18.3"	500	55.22	110.00	498851.4290	2009685.9979
N-5	12° 59'13.4"	750	85.37	170.00	499072.6681	2010002.4161



T-1
T-3

NOTE:
FOR ALIGNMENT OF NOSE TRANSITIONS
AND ISLANDS, SEE CONSTRUCTION PLANS.
FOR "EXISTING" CURVE DATA, REFER TO
THE SHEET T-2.

HORIZONTAL DATUM
NORTH AMERICAN DATUM OF 1983 (NAD 83)
U.S. COAST & GEODETIC MONUMENT NO. 3126
N.J. COAST GEODETIC MONUMENT NO. 4163

VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
U.S. COAST & GEODETIC MONUMENT NO. 3126
N.J. COAST GEODETIC MONUMENT NO. 4163

FIELD BOOK NO. 2711, PAGES 13-15 INCLUSIVE (ON FILE AT THE
NJDOT REGION 3 FIELD SURVEY OFFICE - "PHONE: 609-388-4692")

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TIES
ROUTE 195
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

ALIGNMENT DATA						
NO.	STATION	OFFSET	BASELINE	North COORD.	East COORD.	REMARKS
J-1	7 + 93.13	0'	RAMP J	497,837.8012	2,008,077.8411	P.C.
J-2	9 + 63.13	0'	"	497,957.5922	2,008,197.9617	P.C.C.
J-3	10 + 73.13	0'	"	498,015.9683	2,008,290.9371	P.C.C.
J-4	12 + 50.23	0'	"	498,032.6733	2,008,463.5514	P.T.
J-5	14 + 09.93	0'	"	497,991.9710	2,008,617.9741	P.C.
J-6	18 + 59.73	0'	"	498,093.5802	2,009,037.4727	P.T.
J-7	20 + 47.07	0'	"	498,218.9485	2,009,176.6911	P.C.
J-8	23 + 25.82	0'	"	498,290.2473	2,009,435.8912	P.C.C.
J-9	29 + 41.81	0'	RAMP J	498,151.6831	2,010,035.9911	P.T.
J-10	11 + 63.24	64' RT.	RAMP Y.R.	497,901.0455	2,008,141.0921	P.C.
J-11	9 + 61.18	0'	RAMP J	497,956.3882	2,008,196.4401	P.C.C.
J-12	10 + 06.30	27' LT.	"	498,005.4439	2,008,218.0012	CTR. NOSE
J-13	10 + 59.67	22' LT.	RAMP J	498,029.4817	2,008,268.7816	P.C.
J-14	14 + 26.90	54' RT.	RAMP Y.R.	498,113.3773	2,008,297.7113	P.T.
J-15	22 + 16.16	22' LT.	RAMP J	498,313.3926	2,009,323.1422	P.C.C.
J-16	23 + 03.59	18.11' LT.	"	498,311.7412	2,009,416.1521	P.C.C.
J-17	23 + 25.82	18' LT.	"	498,307.9076	2,009,439.4051	CTR. NOSE
J-18	25 + 95.62	14' LT.	"	498,247.7655	2,009,702.8711	CTR. NOSE
J-19	23 + 59.01	10' RT.	"	498,273.9283	2,009,466.4412	P.R.C.
J-20	23 + 42.46	5.01' RT.	RAMP J	498,282.0763	2,009,451.2213	P.R.C.
A-1	9 + 61.00	0'	ACCESS RD. I	497,091.8573	2,007,413.6131	P.O.T.
A-2	10 + 36.00	0'	"	497,138.6362	2,007,354.9811	P.C.
A-3	11 + 14.54	0'	"	497,208.9086	2,007,347.0816	P.T.
A-4	16 + 37.00	0'	ACCESS RD. I	497,617.3077	2,007,672.9251	P.O.T.
A-5	0 + 27.11	43.01 LT.	RAMP Y.R.	497,079.6883	2,007,348.8719	P.C.C.
A-6	10 + 33.11	19.97 LT.	ACCESS RD. I	497,121.2272	2,007,344.7918	P.R.C.
A-7	11 + 14.54	15.00 LT.	ACCESS RD. I	497,218.2546	2,007,335.3615	P.T.
A-8	1 + 65.38	45.06 LT.	RAMP Y.R.	497,189.0445	2,007,433.5151	P.C.C.
A-9	1 + 18.43	51.25 LT.	RAMP Y.R.	497,156.2099	2,007,399.3919	P.C.C.
A-10	11 + 14.54	15.00 RT.	ACCESS RD. I	497,199.5482	2,007,358.8118	P.T.
ML-1	269 + 31.90	0'	B.L. RTE. 195	498,636.8467	2,004,430.9811	P.C.
ML-2	304 + 91.85	0'	"	498,773.3984	2,007,936.2814	P.T.
ML-3	367 + 64.56	0'	"	497,174.5944	2,014,001.8151	P.C.
ML-4	381 + 23.98	0'	"	496,739.9585	2,015,288.7713	P.T.
ML-5	415 + 52.99	0'	"	495,424.6530	2,018,455.4931	P.C.
ML-6	430 + 61.24	0'	"	494,953.1503	2,019,886.6510	P.T.
ML-7	461 + 27.31	0'	"	494,215.8176	2,022,862.7512	P.C.
ML-8	475 + 15.82	0'	"	493,766.9904	2,024,174.8615	P.T.
ML-9	504 + 05.93	0'	B.L. RTE. 195	492,598.0199	2,026,818.0001	P.O.T.

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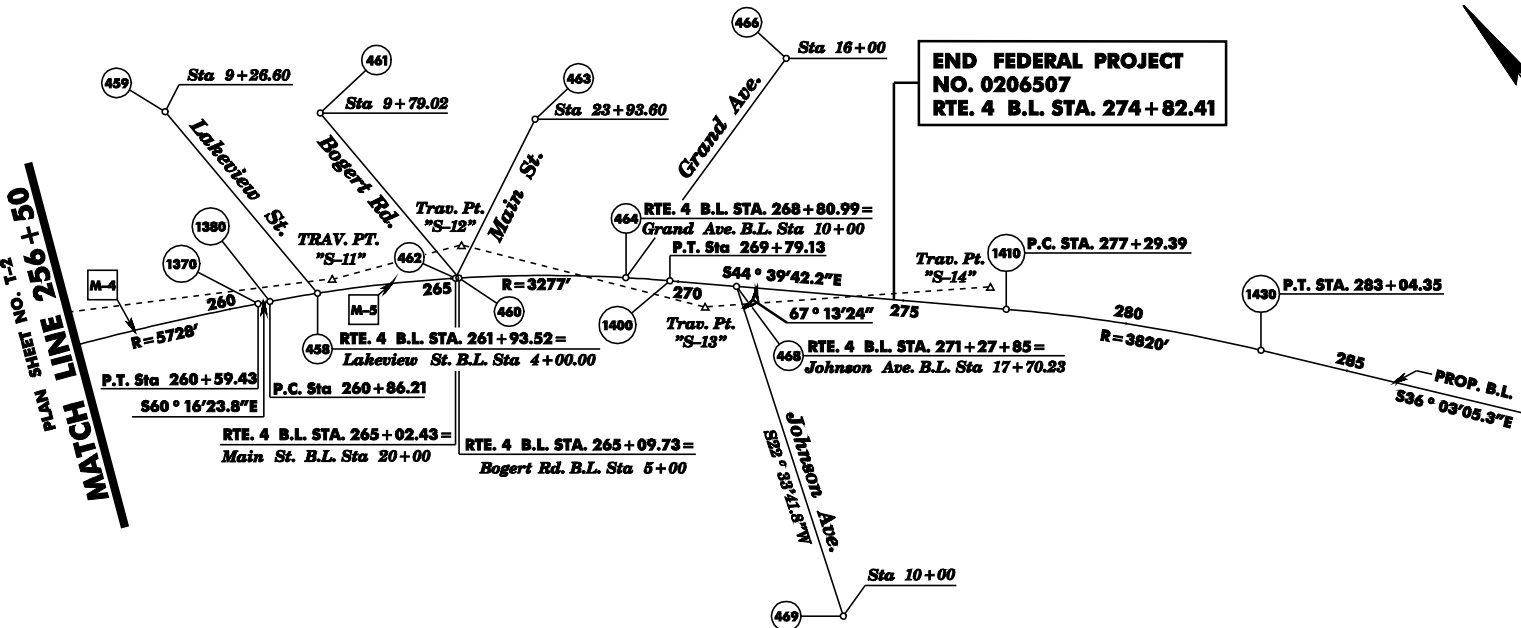
SURVEY BASELINE DATA			
NO.	North COORD.	East COORD.	REMARKS
TR-A	493,919.454	2,023,889.690	2"x2"x18" Hub
TR-B	494,055.347	2,023,252.052	IP - #5 Rebar (36")
TR-C	494,319.892	2,022,919.641	2"x2"x18" Hub
TR-D	494,139.989	2,022,189.984	D.H. (S.W. Corner Step)
TR-E	494,805.554	2,020,502.930	PK w/Ribbon
TR-F	495,584.560	2,018,347.601	PK w/Ribbon
TR-G	495,864.561	2,017,767.792	2"x2"x18" Hub
TR-H	496,160.553	2,017,157.175	IP - #5 Rebar (36")
TR-K	496,391.688	2,016,561.661	PK w/Ribbon
TR-L	496,664.295	2,016,032.945	DH Sdwk.
TR-M	496,834.526	2,015,602.300	DH Curb
TR-N	497,031.642	2,015,202.612	2"x2"x18" Hub
TR-O	497,235.056	2,013,977.108	PK w/Ribbon
TR-P	497,310.665	2,013,521.615	PK w/Ribbon
TR-Q	497,689.779	2,012,015.452	2"x2"x18" Hub
TR-R	497,984.782	2,010,893.275	2"x2"x18" Hub
TR-S	498,131.948	2,010,226.160	2"x2"x18" Hub
TR-T	498,307.678	2,009,691.814	DH Curb
TR-U	498,614.004	2,008,535.355	DH Sdwk.
TR-V	498,605.107	2,008,568.959	2"x2"x18" Hub
TR-W	498,931.933	2,007,750.851	2"x2"x18" Hub
TR-X	498,876.158	2,007,346.677	2"x2"x18" Hub
M-1	493,628.028	2,020,694.244	USC&G Mon. #8140
M-2	494,853.604	2,020,505.588	USC&G Mon. #8141
M-3	499,480.510	2,009,264.223	USC&G Mon. #2156

TIES
ROUTE 195
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

BOROUGH OF PARAMUS

COUNTY OF BERGEN



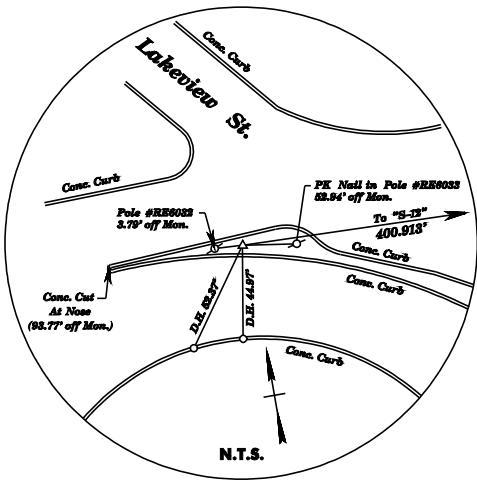
CURVE DATA					CENTER POINT	
NO.	DELTA	RADIUS	TANGENT	LENGTH	North COORD.	East COORD.
M-4	10° 28' 7.8"	5728'	524.76'	1046.59'	754957.922	2167840.995
M-5	15° 36' 41.5"	3277'	449.24'	892.92'	756159.950	2169992.625

TRAVERSE ALIGNMENT DATA						
No.	Station	Offset	Baseline	North Coord.	East Coord.	Remarks
S-11	261+76.88	44.96' Lt.	Rte. 4	757,639.1676	2,172,330.9932	Traverse Point
S-12	265+62.38	100.31' Lt.	Rte. 4	757,468.3475	2,172,693.6952	Traverse Point
S-13	270+66.51	44.99' Rt.	Rte. 4	757,026.3409	2,172,982.6376	Traverse Point
S-14	276+75.87	47.73' Lt.	Rte. 4	756,675.9888	2,173,476.6169	Traverse Point

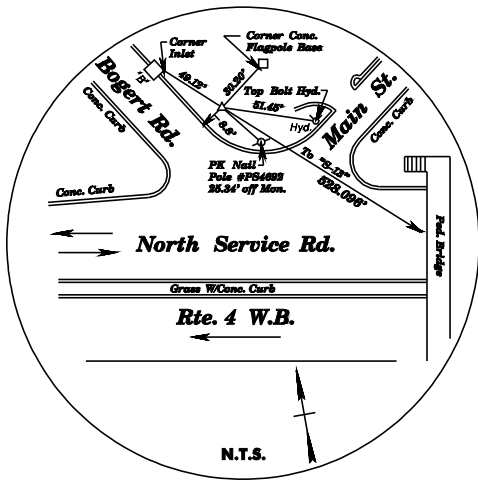
HORIZONTAL DATUM
NORTH AMERICAN DATUM OF 1983 (NAD 83)
U.S. COAST & GEODETIC MONUMENT NO. 3126
N.J. GEODETIC MONUMENT NO. 4163

VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
U.S. COAST & GEODETIC MONUMENT NO. 3126
N.J. GEODETIC MONUMENT NO. 4163

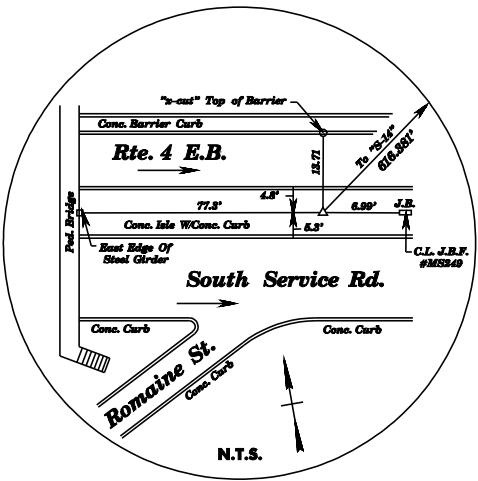
FIELD BOOK NO. 2711, PAGES 13-15 INCLUSIVE (ON FILE AT THE NJDOT AREA "B" FIELD SURVEY OFFICE - "PHONE: 001-388-4692")



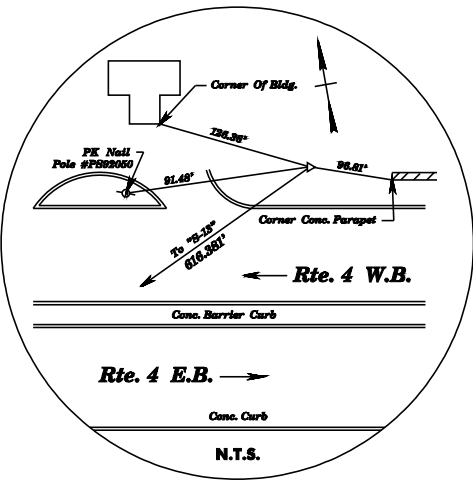
Trav. Pt. "S-11"
Mon. Plug W/Punch (Mon. Box)
Sta. 261+76.88, 44.96' Lt.



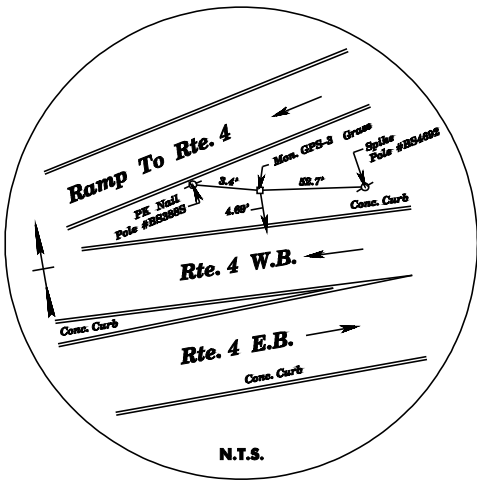
Trav. Pt. "S-12"
Conc. Mon. W/Drill Hole
Sta. 265+62.38, 100.21' Lt.



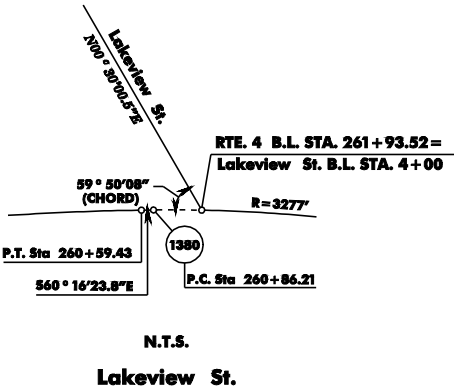
Trav. Pt. "S-13"
Mon. Plug W/Punch (Mon. Box)
Sta. 270+66.51, 44.99' Rt.



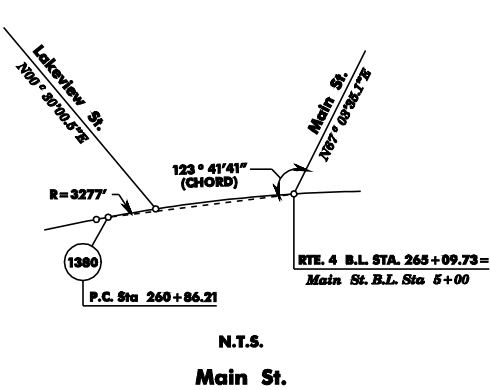
Trav. Pt. "S-14"
"x" Steel Angle Iron (3" Above Ground)
Sta. 276+75.87, 47.72' Lt.



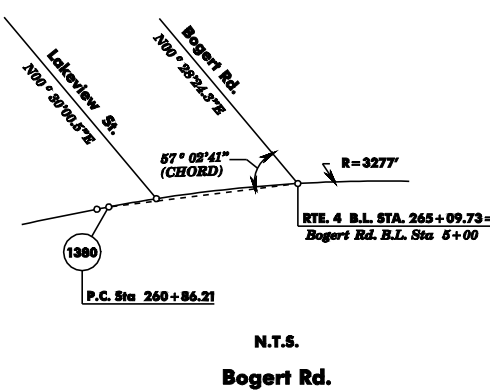
G.P.S. Monument #3, Elev. 73.964
Sta. 281+74.61, 44.96' Lt.



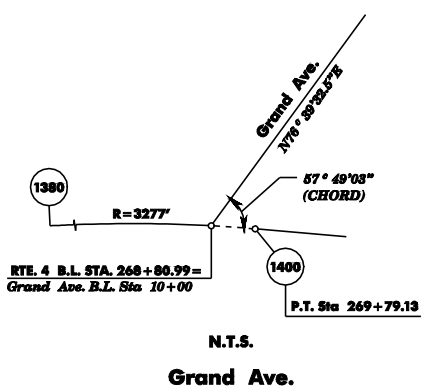
N.T.S.
Lakeview St.



N.T.S.
Main St.



N.T.S.
Bogert Rd.



N.T.S.
Grand Ave.

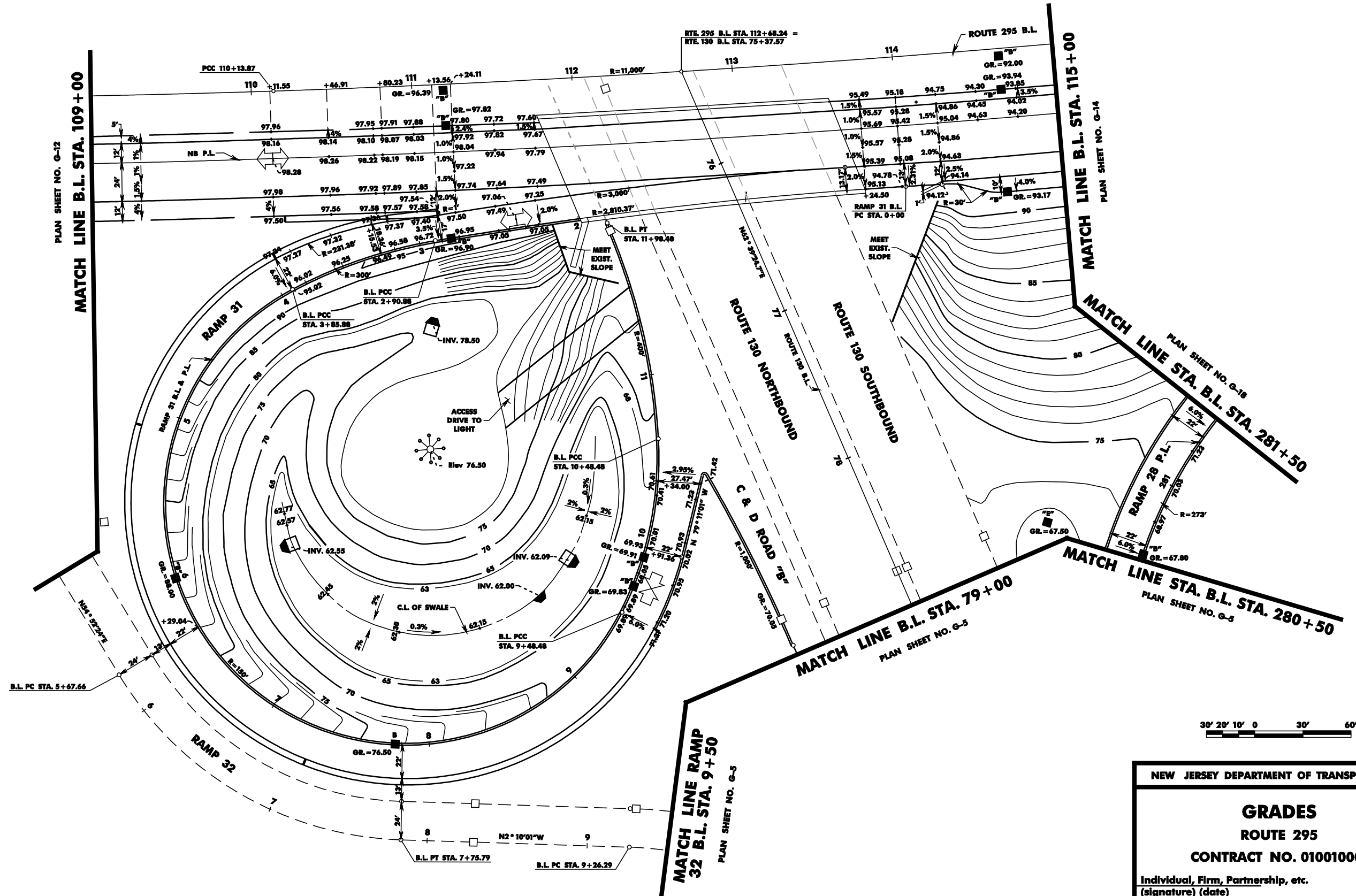


NEW JERSEY DEPARTMENT OF TRANSPORTATION

TIES
ROUTE 4
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

COUNTY OF BURLINGTON

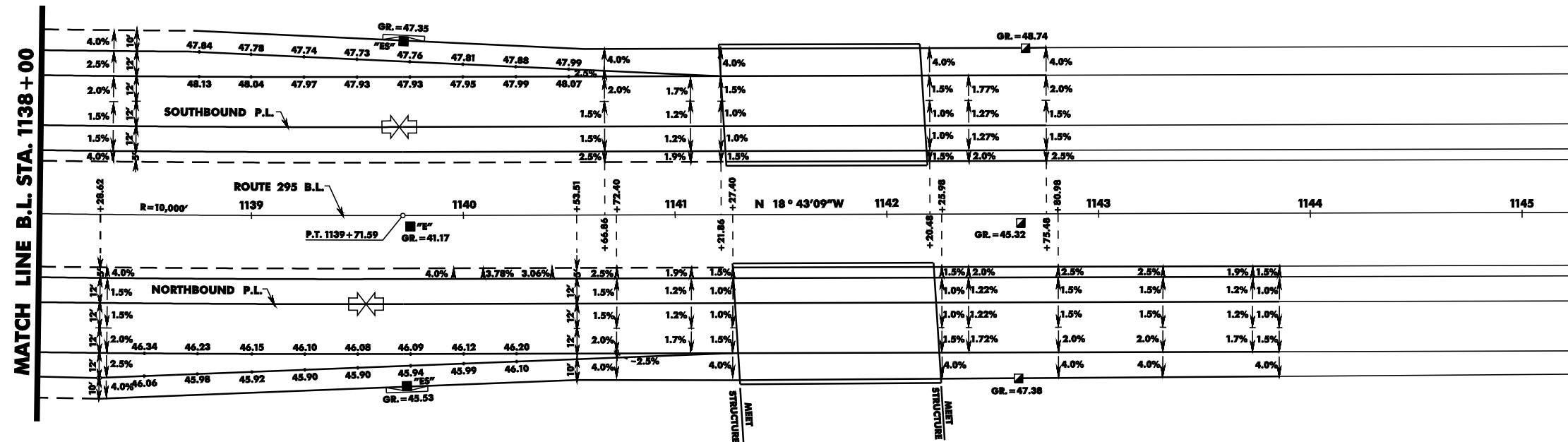
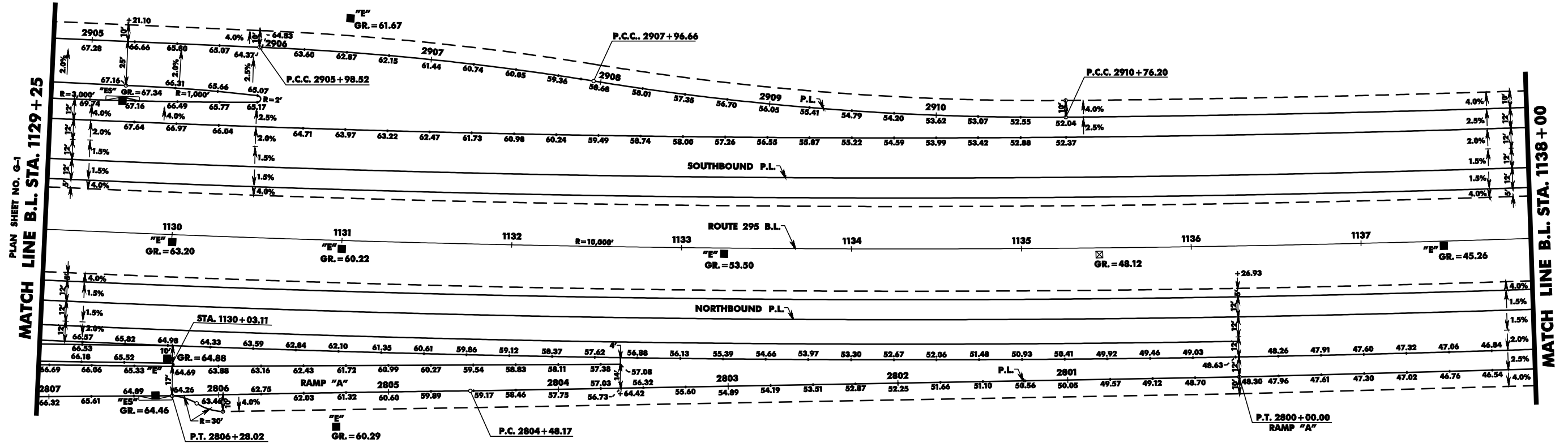


NEW JERSEY DEPARTMENT OF TRANSPORTATION

GRADES
ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

COUNTY OF BURLINGTON



30' 20' 10' 0 30' 60'

NEW JERSEY DEPARTMENT OF TRANSPORTATION

GRADES
ROUTE 295
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

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PROJECT - ORIGINAL SHEET

LEGEND



BREAKAWAY BARRICADES



BREAKAWAY BARRICADES WITH SIGN



CONSTRUCTION SIGNS



DRUMS



CONE



PRECAST CONCRETE CURB CONSTRUCTION BARRIER (TYPE SPECIFIED)



DIRECTION OF TRAFFIC FLOW



TRAFFIC DIRECTOR, FLAGGER



TRAILER MOUNTED MOUNTED ARROW BOARD SHOWING CAUTION MODE



ILLUMINATED FLASHING ARROW MOUNTED ON TOWING VEHICLE
SHOWING ARROW PATTERN (Left, Right, Both)



TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND
ARROW BOARD SHOWING CAUTION MODE



TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND
ARROW BOARD SHOWING ARROW PATTERN (Left, Right, Both)



TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM



TEMPORARY CRASH CUSHION, (all other approved)



BUFFER ZONE



WORK AREA



PAINT STRIPING TRUCK OR OTHER OPERATING VEHICLE

NOTES – TRAFFIC CONTROL PLANS

- ONE LANE OF 11 FEET WIDE UNOBSTRUCTED TRAVELED WAY SHALL BE MAINTAINED ON ROUTE 38 AT ALL TIMES BETWEEN THE HOURS OF 8:00 P.M. AND 5:30 A.M..**
- ROUTE 38 ROADWAY CONSTRUCTION FOR THE VARIOUS STAGES SHALL BE COMPLETED TO THE TOP OF THE BITUMINOUS CONCRETE SURFACE COURSE MIX 1-4 SO THAT THE FINAL SURFACE COURSE CAN BE PLACED IN ONE CONTINUOUS OPERATION DURING THE FINAL STAGE.**
- LANE CLOSURES WILL NOT BE PERMITTED AFTER NOON OF THE DAY BEFORE, DURING, AND UNTIL NOON OF THE DAY AFTER THE FOLLOWING HOLIDAYS OR HOLIDAY WEEKEND PERIODS: NEW YEAR'S DAY, PRESIDENT'S DAY, GOOD FRIDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, COLUMBUS DAY, THANKSGIVING, AND CHRISTMAS. LANE CLOSURES WILL NOT BE PERMITTED ON ELECTION DAY BETWEEN THE HOURS OF 7AM AND 8PM.**
- THE CONTRACTOR SHALL PERFORM THE WORK ON ROUTE 38 IN ACCORDANCE WITH THE FOLLOWING SCHEDULES:**

	MONDAY THRU THURSDAY	FRIDAY	SATURDAY	SUNDAY
NO CLOSURE	6:00 AM to 11:00 AM and 2:00 PM to 8:00 PM	6:00 AM to 11:00 AM and 2:00 PM to 8:00 PM		
ONE LANE CLOSURE	11:00 AM to 2:00 PM and 8:00 PM to 11:00 PM	11:00 AM to 2:00 PM and 8:00 PM to MIDNIGHT	6:00 AM to 9:00 PM	6:00 AM to 4:00 PM
TWO LANE CLOSURES	11:00 PM to 6:00 AM	MIDNIGHT TO 6:00 AM	MIDNIGHT to 6:00 AM and 9:00 PM to MIDNIGHT	MIDNIGHT to 6:00 AM and 4:00 PM to MIDNIGHT

GENERAL NOTES:

- ADVANCE WARNING SIGNS DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED, AT DIRECTION OF THE DEPARTMENT, TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY.
- THE APPROXIMATE LOCATIONS OF THE ILLUMINATED FLASHING ARROW BOARDS ARE SHOWN ON THE TRAFFIC CONTROL PLANS. THESE LOCATIONS MAY BE MODIFIED AS APPROVED BY RE TO ADJUST FOR VISIBILITY DUE TO HORIZONTAL OR VERTICAL CURVATURE OF THE ROADWAY OR TO POSITION AT A SAFER LOCATION. ILLUMINATED FLASHING ARROW BOARDS ARE TO BE USED FOR TEMPORARY LANE CLOSINGS AND AT LOCATIONS SHOWN ON THE TRAFFIC CONTROL PLANS.
- PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
- RAMPS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-IF SIGN (ROAD WORK AHEAD) AS A MINIMUM.
- ALL EXISTING ROAD SIGNS, PAVEMENT MARKINGS AND/OR PLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED OR RELOCATED AS DIRECTED BY THE RE.
- CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON EITHER THE EXISTING, TEMPORARY, OR PROPOSED TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR COVERED.
- MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - PART VI "STANDARDS AND GUIDES FOR TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS", UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS.
- CONSTRUCTION SIGN W90-2 (GIVE US A BRAKE) SHALL BE LOCATED 200 FEET IN ADVANCE OF PROJECT LIMITS.
- A W1-6 (ARROW) SIGN MOUNTED ON A BREAKAWAY BARRICADE AND CENTERED ON THE CLOSED WIDTH SHALL BE LOCATED 100 FEET BEYOND EACH INTERSECTION OR MAIN ACCESS POINT WITHIN THE AREA OF A LANE OR SHOULDER CLOSURE.
- CONSTRUCTION SIGNS R11-4 (ROAD CLOSED TO THRU TRAFFIC) SHALL BE PLACED AT THE INTERSECTING STREETS WHICH ARE CLOSED TO TRAFFIC BECAUSE OF CONSTRUCTION.
- CONSTRUCTION SIGNS W8-9A (SYMBOL FOR UNEVEN PAVEMENT) AND W8-14A (GROOVED PAVEMENT) SHALL BE USED WHEN SUCH PAVEMENT CONDITIONS EXIST. THE PLACEMENT OF THESE SIGNS SHALL BE AS DIRECTED BY THE RE.
- MOVING WORK AREAS IN A LANE CLOSURE REQUIRE A TRAILER MOUNTED ILLUMINATED FLASHING ARROW TO REMAIN AT THE END OF THE TAPER, THE TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION THAT SHALL MOVE WITH THE WORK AREAS TO KEEP A 60 FEET MIN. AND 150 FEET MAX. BUFFER IN ADVANCE OF EACH WORK AREA.
- THE CONTRACTOR SHALL SUBMIT A PLAN FOR THE SAFE ACCESS OF CONSTRUCTION VEHICLES THROUGHOUT THE WORK SITE WHERE SPACE CONSTRAINTS PREVENT THE USE OF LANE CLOSURES. THE PLAN SHALL BE SUBMITTED TO THE RE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- TRAFFIC SAFETY SERVICES SHALL BE USED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL.
- ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON AT LEAST 6H : 1V SLOPE BEFORE THE END OF EACH WORK DAY. OTHER EXCAVATED AREA WITHIN THE CLEAR ZONE SHALL BE BACKFILLED.
- WHERE REQUIRED, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN CROSSING LOCATIONS AND TYPE AS DIRECTED BY THE RE.
- BITUMINOUS CONCRETE PLACED DURING THE VARIOUS CONSTRUCTION STAGES SHALL BE TRANSITIONED ON A MINIMUM 20H : 1V SLOPE TO MEET THE ADJACENT EXISTING GRADE AT THE LONGITUDINAL AND TRANSVERSE LIMITS OF THE STAGE CONSTRUCTION AREAS UNLESS OTHERWISE NOTED ON THE STAGE CONSTRUCTION PLANS.
- THE PLACEMENT AND OR RELOCATION OF PRECAST CONCRETE CURB, CONSTRUCTION BARRIER SHALL BE DONE DURING APPROVED OFF-PEAK HOURS WHEN TRAFFIC MAY BE REDUCED TO ONE LANE IN EACH DIRECTION.
- CONSTRUCTION ZONE SPEED LIMIT WILL BE DETERMINED BY THE TRAFFIC SIGNAL & SAFETY ENGINEERING, REGIONAL TRAFFIC ENGINEER - WORK ZONE, AT THE TIME OF OR DURING CONSTRUCTION, AS REQUESTED BY THE R.E..
- THE SPEED LIMIT, R2-1 (BLACK ON WHITE) WITH ADDED WORK ZONE PLATE (BLACK ON ORANGE) SIGNS SHALL BE LOCATED THROUGH WORK AREAS AS DIRECTED BY THE TRAFFIC SIGNAL & SAFETY ENGINEERING REGIONAL TRAFFIC ENGINEER - WORK ZONE.
- THE REDUCED SPEED AHEAD SIGN, W3-5(S) (BLACK ON ORANGE) SHALL BE LOCATED IN ADVANCE OF SPEED LIMIT R2-1 SIGNS WHICH REDUCE THE NORMAL POSTED SPEED LIMIT THROUGH THE CONSTRUCTION ZONE.
- TRAFFIC FINES DOUBLED IN WORK AREA R(NJ)5-17(S). 4 FEET BY 2.5 FEET SIGN SHALL BE LOCATED 500 FEET AFTER THE FIRST ADVANCE WARNING SIGN (W20 SERIES) AT EACH WORK AREA LOCATED WITHIN URBAN AREAS. THIS SIGN SHALL ALSO BE USED ON PROJECTS REQUIRING MOVING OPERATIONS IN WHICH CASE THE SIGN SHALL BE MOUNTED ON A SLOW MOVING CONSTRUCTION VEHICLE.
- THE FINAL HMA SURFACE PAVEMENT SHALL NOT BE CONSTRUCTED UNTIL THE FINAL STAGE OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE RE OR INDICATED ON THE PLANS. MANHOLES AND INLETS SHALL BE SET TO FINISHED GRADE AND TEMPORARY PAVEMENT RAMPS ARE TO BE CONSTRUCTED AROUND THEM WITH A MINIMUM 20H : 1V SLOPE IN ALL DIRECTIONS USING HOT MIX ASPHALT PAVEMENT. THIS TEMPORARY MATERIAL WILL BE REMOVED IMMEDIATELY PRIOR TO PLACING THE SURFACE COURSE.

- TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRICADES, ETC. SHALL BE PLACED AS SHOWN ON PLANS. SIGNS SHALL NOT BE PLACED WITHOUT ACTUAL LANE CLOSURES AND SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
- CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE RE.
- TRAFFIC IMPACT NOTICES AND CHANGES

A. TERMS:

WHEN THE FOLLOWING TERMS ARE USED, THE INTENT AND MEANING SHALL BE AS FOLLOWS:

i. IMPACTS TO NORMAL TRAFFIC FLOW - WORK THAT REQUIRES A PORTION OF THE PAVED ROADWAY BEING BLOCKED OR CLOSED WITH SAFETY DEVICES OR VEHICLES, INCLUDING, BUT NOT LIMITED TO, FULL OR PARTIAL LANE CLOSURES, FULL OR PARTIAL RAMP CLOSURES, SHOULDER CLOSURES, MOVING OPERATIONS SUCH AS TRAFFIC STRIPING OR SWEEPING, LANE SHIFTS, OR ALTERNATING TRAFFIC. THIS APPLIES EVEN WHEN DETOURS ARE PROVIDED.

ii. TEMPORARY LANE CLOSURES - WORK DESCRIBED UNDER "IMPACTS TO NORMAL TRAFFIC FLOW" WHICH IS ROUTINELY SET UP AND REMOVED ON A DAILY BASIS.

iii. PERMANENT LANE CLOSURES - WORK DESCRIBED UNDER "IMPACTS TO NORMAL TRAFFIC FLOW" WHICH REMAINS IN PLACE CONTINUOUSLY FOR 24 HOURS OR MORE.

B. ADVANCE NOTICES

FOR THE INITIAL START OF WORK THAT REQUIRES "IMPACTS TO NORMAL TRAFFIC FLOW", THE CONTRACTOR SHALL NOTIFY THE RE IN WRITING, ON THE ADVANCE FORM TO-103 PROVIDED BY THE DEPARTMENT, OF THE PROPOSED DATE. THE NOTICE SHALL BE SUBMITTED AT LEAST TWENTY-EIGHT CALENDAR DAYS, BUT NOT MORE THAN SIXTY CALENDAR DAYS, BEFORE THE PROPOSED DATE. START OF WORK THAT IMPACTS NORMAL TRAFFIC FLOW WILL NOT BE PERMITTED PRIOR TO THE DATE STATED IN THE NOTICE. THE CONTRACTOR SHALL CONFIRM, IN WRITING, TO THE RE, THE PROPOSED DATE SEVEN (AND/OR FOURTEEN) CALENDAR DAYS BEFORE STARTING THE ESTABLISHMENT OF THE TRAFFIC CONTROL MEASURES FOR THE TRAFFIC IMPACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RE IF THE PROPOSED ESTABLISHMENT CAN NOT BE COMPLETED ON THE PROPOSED DATE.

FOR A "PERMANENT LANE CLOSURE", THE CONTRACTOR SHALL NOTIFY THE RE IN WRITING, ON ADVANCE FORM TO-103, OF THE PROPOSED DATE A NEW TRAFFIC PATTERN WILL BE ESTABLISHED. THE NOTICE SHALL BE SUBMITTED AT LEAST TWENTY-EIGHT CALENDAR DAYS, BUT NOT MORE THAN SIXTY CALENDAR DAYS, IN ADVANCE OF THE PROPOSED DATE. START OF A NEW TRAFFIC PATTERN WILL NOT BE PERMITTED PRIOR TO THE DATE STATED IN THE NOTICE. THE CONTRACTOR SHALL CONFIRM, IN WRITING, TO THE RE, THE PROPOSED DATE OF THE NEW TRAFFIC PATTERN SEVEN (AND/OR FOURTEEN) DAYS BEFORE STARTING TRAFFIC CONTROL MEASURES FOR THE ESTABLISHMENT OF THE NEW PATTERN. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RE IF THE PROPOSED ESTABLISHMENT CAN NOT BE COMPLETED ON THE PROPOSED DATE.

STARTING THE ESTABLISHMENT OF A NEW PERMANENT TRAFFIC PATTERN SHALL BEGIN NO EARLIER THAN 11:00 PM FRIDAY AND SHALL BE COMPLETED AND READY FOR OPERATIONS BY 6:00 PM THE FOLLOWING SUNDAY. THE ESTABLISHMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE LANE CLOSURE HOURS SPECIFIED IN THE CONTRACT.

ADVANCE NOTICES SENT PRIOR TO THE PRE-CONSTRUCTION MEETING SHALL BE ADDRESSED TO THE CONTACT PERSON AS SPECIFIED IN SUBSECTION 101.04 OF THE SPECIAL PROVISIONS.

C. PROGRESS NOTICES

ALL "IMPACTS TO NORMAL TRAFFIC FLOW" SCHEDULED FOR THE SEVEN DAY PERIOD STARTING ON THE FOLLOWING MONDAY SHALL BE SUBMITTED TO THE RE BY 9:00 AM OF EACH FRIDAY ON WEEKLY FORM TO-101 PROVIDED BY THE DEPARTMENT.

EACH DAY OF "TEMPORARY LANE CLOSURES" SHALL BE SUBMITTED TO THE RE BY 9:00 AM THE DAY IN ADVANCE OF THE START OF THOSE OPERATIONS ON DAILY FORM TO-102 PROVIDED BY THE DEPARTMENT.

"TEMPORARY LANE CLOSURES" FOR WEEKENDS SHALL BE SUBMITTED TO THE RE BY 9:00 AM ON THE IMMEDIATELY PRECEDING FRIDAY ON THE DAILY FORM TO-102 PROVIDED BY THE DEPARTMENT.

D. CHANGES TO THE SCHEDULED CLOSURES

REQUEST FOR A CHANGE TO THE TRAFFIC CONTROL REQUIREMENTS IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE RE AS FOLLOWS:

CHANGES TO THE SCHEDULED HOURS FOR "TEMPORARY LANE CLOSURES" SHALL BE SUBMITTED TO THE R.E. AT LEAST EIGHT CALENDAR DAYS IN ADVANCE OF WHEN THE CHANGE IS PROPOSED TO START.

OTHER PROPOSED CHANGES TO "TEMPORARY LANE CLOSURES" AND ALL CHANGES TO "PERMANENT LANE CLOSURES" SHALL BE SUBMITTED TO THE RE AS SPECIFIED IN THE SPECIFICATIONS.

CONSTRUCTION SIGN TABLE

SIGN DESIGNATION	MESSAGE	SIZE	AREA IN S.F.	REQUIRED QUANTITY IN NUMBER	TOTAL AREA IN S.F.
W20-1D	ROAD WORK 12 OR 1 MILE	48" x 48"	16	4	64
W20-5A	LEFT TWO LANES CLOSED 1500 FT.	48" x 48"	16	2	32
W20-5B	LEFT TWO LANES CLOSED 1000 FT.	48" x 48"	16	2	32
W4-2(S)	—VA—	48" x 48"	16	4	64
G20-2A	END ROAD WORK	60" x 24"	10	2	20
CONSTRUCTION SIGN TOTAL					212

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND STAGING PLAN ROUTE 38

CONTRACT NO. 010010001

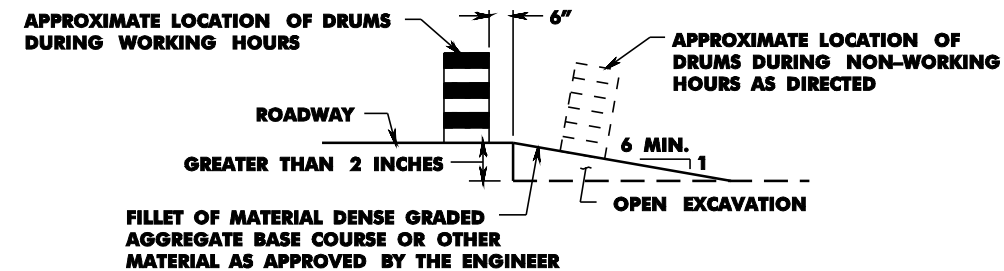
Individual, Firm, Partnership, etc.

(signature) (date)

John L. Doe

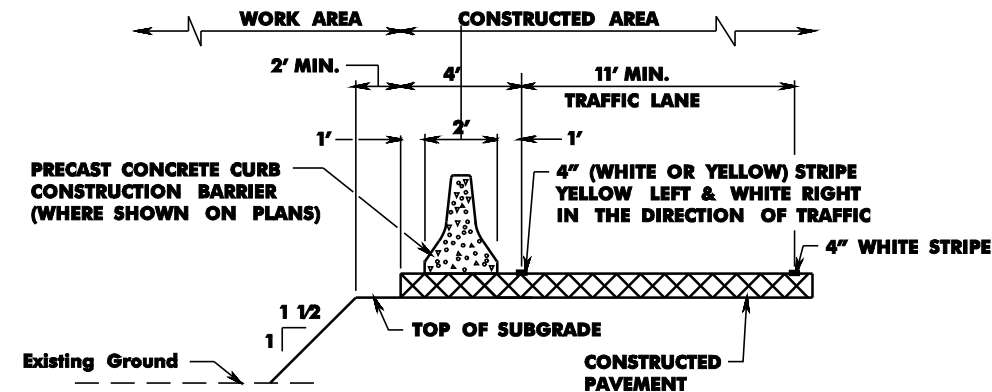
N.J.P.E. LIC. NO. 99999

26



NOTE:
ESCAPE RAMPS MUST BE CONSTRUCTED AND MAINTAINED DURING NON-WORKING HOURS WHERE A VERTICAL DROP GREATER THAN 2 INCHES EXISTS ADJACENT TO TRAVELED LANE.

ESCAPE RAMP DETAIL



TYPICAL SECTION
PLACEMENT OF PRECAST CONCRETE
CONSTRUCTION BARRIER

REGULATORY APPROACH SPEED OF TRAFFIC MILES/HOUR	RECOMMENDED SIGHT DISTANCE TO BEGINNING OF CHANNELIZING TAPERS		
	DESIRABLE		MINIMUM
	RURAL FEET	URBAN FEET	RURAL AND URBAN FEET
25	375	525	150
30	450	625	200
35	525	725	250
40	600	825	325
45	675	925	400
50	750	1025	475
55	875	1150	550
60	1000	1275	650
65	1050		725

NOTES:

1. AVOIDANCE MANEUVER IS FOR A SPEED, PATH, AND/OR DIRECTION CHANGE PRIOR TO THE BEGINNING OF CHANNELIZING TAPERS.
2. RECOMMENDED DISTANCES BETWEEN TWO SEPARATE LANE CLOSURES SHALL BE DOUBLE THE VALUES SHOWN ABOVE.
3. RURAL AND URBAN ROAD DESIGNATIONS SHALL BE AS DEFINED IN THE NJDOT STATE HIGHWAY STRAIGHT LINE DIAGRAMS.
4. DESIRABLE VALUES SHALL BE PROVIDED WHEREVER POSSIBLE. IF IT IS NOT FEASIBLE OR PRACTICAL TO PROVIDE DESIRABLE VALUES BECAUSE OF HORIZONTAL OR VERTICAL CURVATURE OR IF RELOCATION OF THE TAPER IS NOT POSSIBLE, THEN MINIMUM VALUES CAN BE APPLIED. WHEN MINIMUM VALUES ARE USED, SPECIAL ATTENTION SHOULD BE GIVEN TO THE USE OF SUITABLE TRAFFIC CONTROL DEVICES FOR PROVIDING ADVANCED WARNING OF THE CONDITIONS THAT ARE LIKELY TO BE ENCOUNTERED.
5. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.

RECOMMENDED TAPER LENGTH AND SPACING FOR CHANNELIZING TAPERS						RECOMMENDED SPACING ALONG TANGENTS
REGULATORY APPROACH SPEED OF TRAFFIC MILES/HOUR	MINIMUM TAPER RATIO IN LENGTH PER FOOT OF WIDTH	MINIMUM TAPER LENGTH L – FOR LANE WIDTHS			MAXIMUM DEVICE (B) SPACING ALONG TAPERS IN FEET	MAXIMUM DEVICE (D) SPACING ALONG TANGENTS IN FEET
		10'	11'	12'		
25	10.5:1	105	115	125	25	50
30	15:1	150	165	180	30	60
35	20.5:1	205	225	245	35	70
40	27:1	270	300	325	40	80
45	45:1	450	495	540	45	90
50	50:1	500	550	600	50	100
55	55:1	550	605	660	55	110
60	60:1	600	660	720	60	120
65	65:1	650	715	780	65	130

NOTE:

THE MAXIMUM DEVICE SPACING ALONG CURVES SHALL BE AS DEFINED FOR TAPERS (B) IN THE ABOVE TABLE.

N.T.S.

TC-2
TC-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND STAGING PLAN

ROUTE 38

CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.

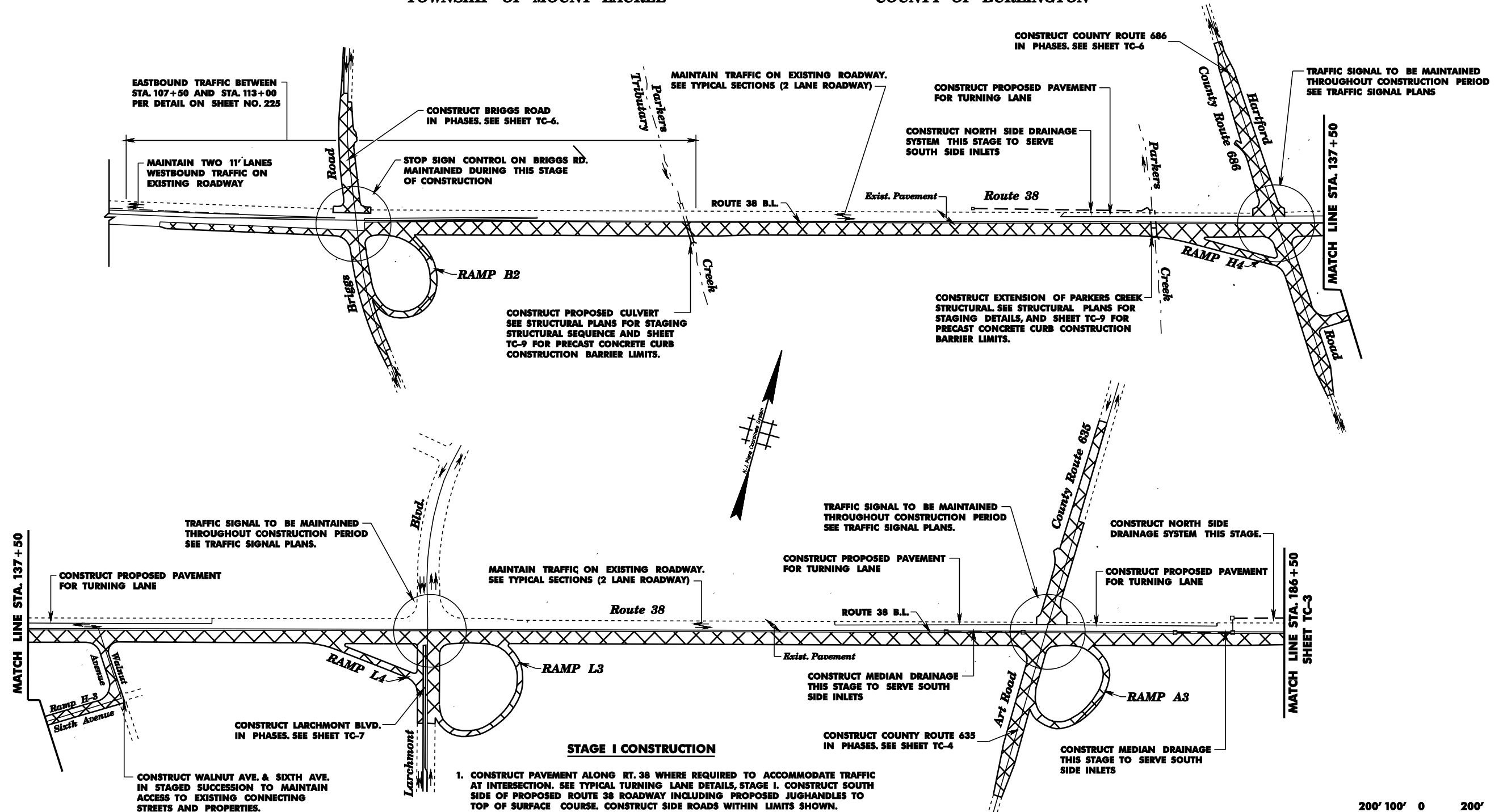
(signature) (date)

John L. Doe

N.J.P.E. LIC. NO. 99999

TOWNSHIP OF MOUNT LAUREL

COUNTY OF BURLINGTON



STAGE I CONSTRUCTION

1. CONSTRUCT PAVEMENT ALONG RT. 38 WHERE REQUIRED TO ACCOMMODATE TRAFFIC AT INTERSECTION. SEE TYPICAL TURNING LANE DETAILS, STAGE I. CONSTRUCT SOUTH SIDE OF PROPOSED ROUTE 38 ROADWAY INCLUDING PROPOSED JUGHANDLES TO TOP OF SURFACE COURSE. CONSTRUCT SIDE ROADS WITHIN LIMITS SHOWN.
2. MAINTAIN TRAFFIC ON EXISTING RTE. 38 ROADWAY WITH ONE LANE IN EACH DIRECTION. AT SIGNALIZED INTERSECTIONS (HARTFORD RD., LARCHMONT BLVD. AND ARK RD.) PROVIDE SEPARATE TURNING LANES. (SEE TYPICAL TURNING LANE DETAIL).
3. MAINTAIN TRAFFIC ON SIDE ROADS (ONE LANE IN EACH DIRECTION) WITH CONSTRUCTION PHASED AS PER DETAILS ON SIDE ROAD PHASING PLANS. ALSO SEE TEMPORARY PAVEMENT DETAIL.
4. FOR STRUCTURE STAGING SEE STRUCTURAL PLANS.
5. PROVIDE BITUMINOUS RAMPING BETWEEN EXISTING & NEW PAVEMENT AT INTERSECTIONS AS REQUIRED.
6. CONSTRUCT DRAINAGE ON NORTH SIDE AND MEDIAN AREAS OF RTE. 38 AS SHOWN TO SERVE NEW SOUTH SIDE ROADWAY INLETS.

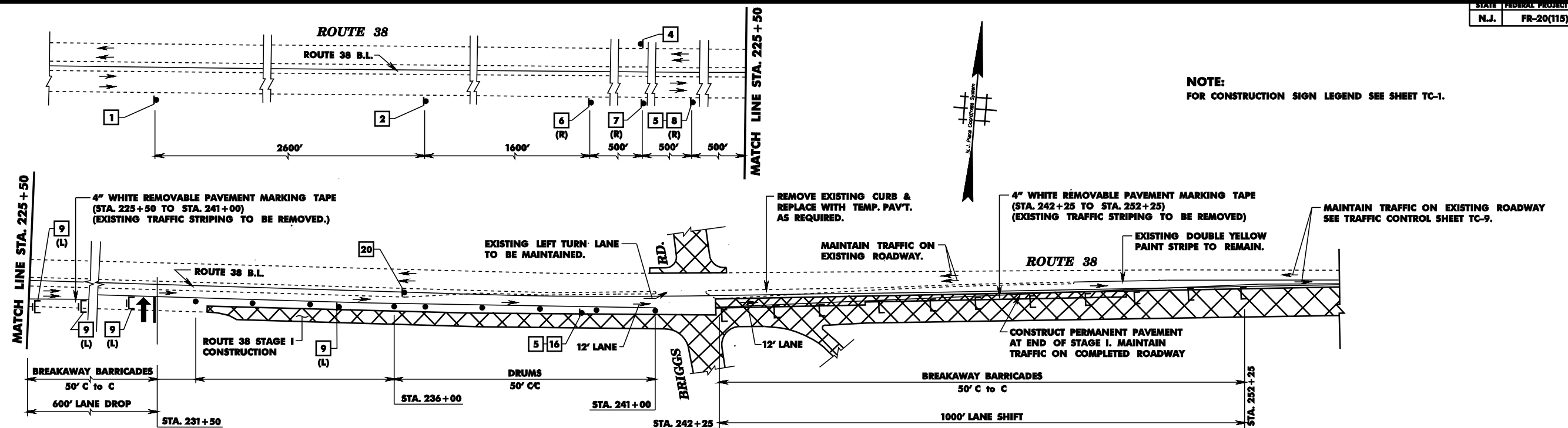
STAGE I CONSTRUCTION - TRAFFIC MAINTAINED ON EXISTING ROADWAY

NEW JERSEY DEPARTMENT OF TRANSPORTATION

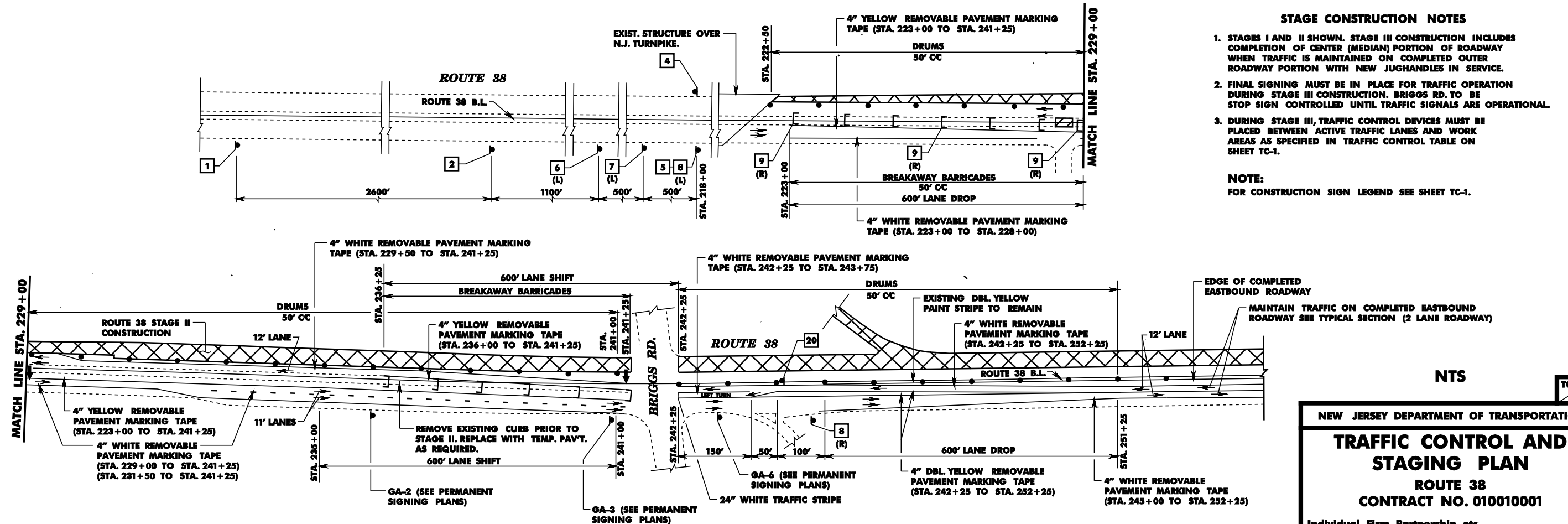
TRAFFIC CONTROL AND
STAGING PLAN

ROUTE 38
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999



STAGE I CONSTRUCTION - ROUTE 38 STA. 221+85 TO STA. 255+25



STAGE II CONSTRUCTION - ROUTE 38 STA. 221+85 TO STA. 255+25

NTS

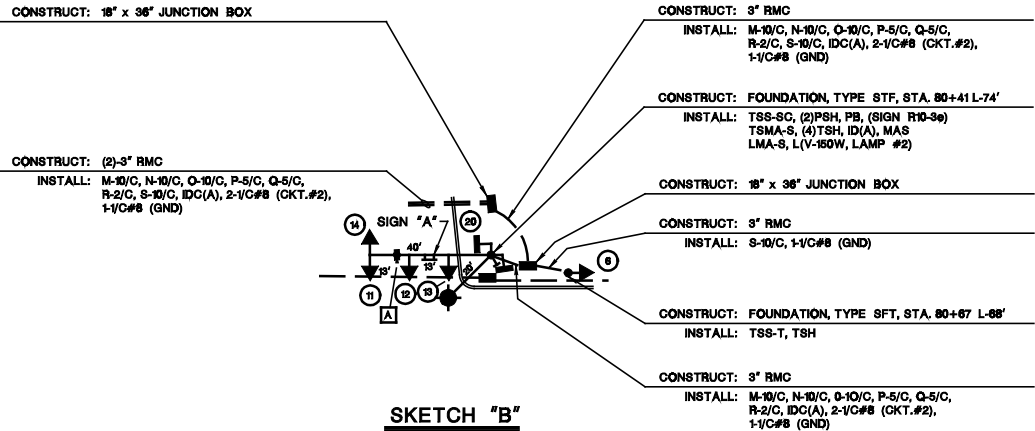
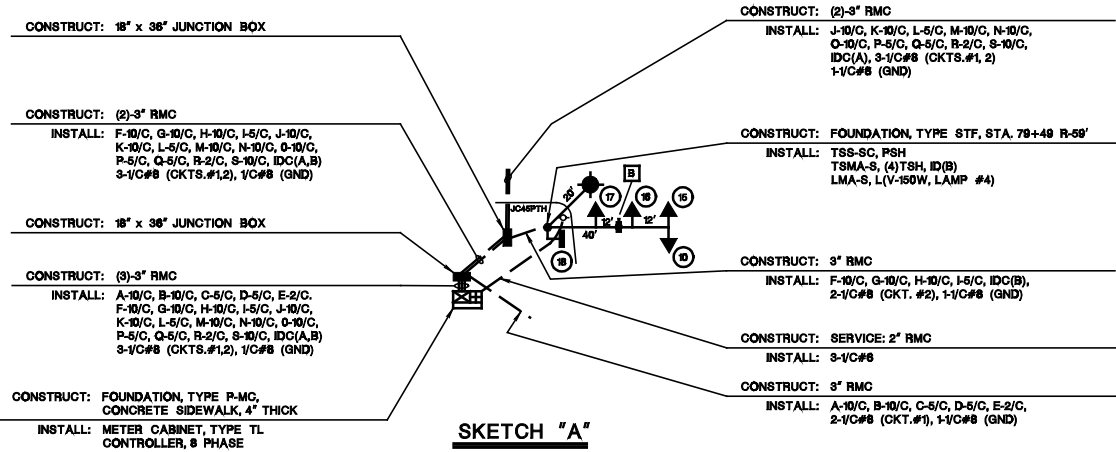
NEW JERSEY DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND STAGING PLAN

ROUTE 38
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK 4" THICK	2 SY
701012P	1½" RIGID METALLIC CONDUIT	18 LF
701015P	2" RIGID METALLIC CONDUIT	148 LF
701021P	3" RIGID METALLIC CONDUIT	833 LF
701102M	18" x 36" JUNCTION BOX	11 UNITS
701123M	FOUNDATION, TYPE SFT	1 UNIT
701132M	FOUNDATION, TYPE P-MC	1 UNIT
701138M	FOUNDATION, TYPE STF	4 UNITS
701171M	METER CABINET, TYPE TL	1 UNIT
701192P	GROUND WIRE, NO. 8 AWG	276 LF
701201P	MULTIPLE LIGHTING WIRE, NO. 8 AWG	450 LF
701213P	SERVICE WIRE, NO. 6 AWG	285 LF
702009M	CONTROLLER, 8 PHASE	1 UNIT
702012M	TRAFFIC SIGNAL STANDARD, ALUMINUM	1 UNIT
702015M	TRAFFIC SIGNAL STANDARD, STEEL	4 UNITS
702024M	TRAFFIC SIGNAL MAST ARM, STEEL	4 UNITS
702027P	TRAFFIC SIGNAL CABLE, 2 CONDUCTOR	787 LF
702030P	TRAFFIC SIGNAL CABLE, 5 CONDUCTOR	1722 LF
702033P	TRAFFIC SIGNAL CABLE, 10 CONDUCTOR	2789 LF
702036M	TRAFFIC SIGNAL HEAD	17 UNITS
702039M	PEDESTRIAN SIGNAL HEAD	6 UNITS
702042M	PUSH BUTTON	2 UNITS
702045M	IMAGE DETECTOR	2 UNITS
702057M	INTERIM TRAFFIC SIGNAL SYSTEM, LOCATION 1	LUMP SUM
702060M	CONTROLLER TURN-ON	1 UNIT
703015M	LIGHTING MAST ARM, STEEL	4 UNITS
703018M	LUMINAIRE	4 UNITS



30' 20' 10' 0 30' 60'

E-2
E-3

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ELECTRICAL PLANS

ROUTE 00 *
MUNICIPALITY XXXXX TOWNSHIP COUNTY XXXXX
ROUTE 00 & SIDE ROAD
LOAD CENTER "NR"

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 00000

CONTROL SECTION
NO. XXXXXXXX

33

TOWNSHIP OF XXXXXX

ROUTE 00 & SIDE ROAD

COUNTY OF XXXXXX

	SIGNAL INDICATIONS								TIME (sec)	
	WITHOUT PEDESTRIAN ACTUATION								I	II
	1-9	10,11	12,13	14,15	16,17	18-21	22,23			
1. Rte. 00 R.O.W.	G	R	R	R	R	W	DW		40-20	60-35
PED. CLEARANCE	G	R	R	R	R	FDW	DW		25	25
CHANGE	Y	R	R	R	R	DW	DW		5*	5**
CLEARANCE	R	R	R	R	R	DW	DW		2	2
2. Side Rd. S/B R.O.W.	R	R	R	G/<G-	G	DW	DW		7-17	7-22
CHANGE	R	R	R	Y	Y	DW	DW		4	4
CLEARANCE	R	R	R	R	R	DW	DW		3	3
3. Side Rd. N/B R.O.W.	R	G/<G-	G	R	R	DW	DW		7-17	7-17
CHANGE	R	Y	Y	R	R	DW	DW		4	4
CLEARANCE	R	R	R	R	R	DW	DW		3	3

	WITH PEDESTRIAN ACTUATION								TIME (sec)	
									I	II
	1-9	10,11	12,13	14,15	16,17	18-21	22,23			
1. Rte. 00 R.O.W.	G	R	R	R	R	W	DW		10	30
PED. CLEARANCE	G	R	R	R	R	FDW	DW		25	25
CHANGE	Y	R	R	R	R	DW	DW		5*	5**
CLEARANCE	R	R	R	R	R	DW	DW		2	2
2. Side Rd. S/B R.O.W.	R	R	R	G/<G-	G	DW	DW		7	7
CHANGE	R	R	R	Y	Y	DW	DW		4	4
CLEARANCE	R	R	R	R	R	DW	DW		3	3
3. Side Rd. N/B R.O.W.	R	G/<G-	G	R	R	DW	W		5	5
PED. CLEARANCE	R	G/<G-	G	R	R	DW	FDW		32	32
CHANGE	R	Y	Y	R	R	DW	DW		4	4
CLEARANCE	R	R	R	R	R	DW	DW		3	3
EMERGENCY FLASH	Y	R	R	R	R	DARK	DARK			

* An Offset of 8 seconds is to be measured from the beginning of yellow to Route 00 at Reference Road to the beginning of yellow to Route 00 at this intersection.

** An Offset of 0 seconds is to be measured from the beginning of yellow to Route 00 at this intersection.

The Side Road N.B. right turn loops are to be equipped with a 10 second delay.

Memory-disconnected

Vehicle Extension-2 seconds

Manual Control-disconnected

HOURS OF OPERATION:

Timing Schedule II (120 Second Background Cycle) is to be in effect Monday-Friday, 6:30 a.m.-9:00 a.m.

Timing Schedule I (100 Second Background Cycle) is to be in effect all other times.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ELECTRICAL PLANS

ROUTE 00

MUNICIPALITY XXXXX TOWNSHIP COUNTY XXXXX

ROUTE 00 & SIDE ROAD

LOAD CENTER "NR"

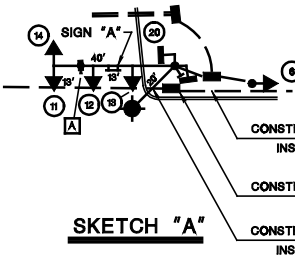
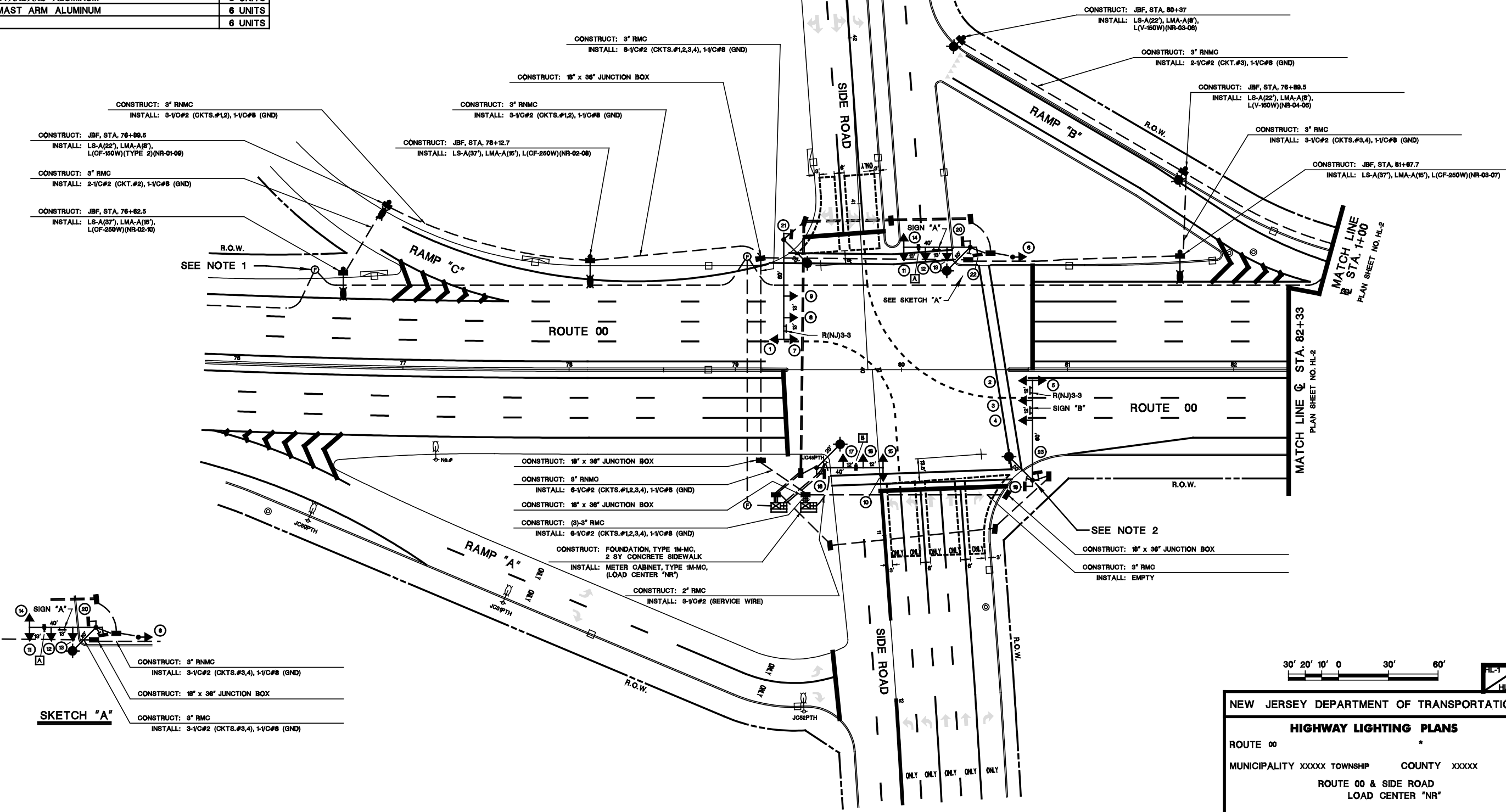
Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 00000

34

(NOTE: TEXT HAS BEEN ENLARGED FOR VISUAL PRESENTATION IN THE SAMPLE PLAN SET.)

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK 4" THICK	2 SY
701015P	2" RIGID METALLIC CONDUIT	28 LF
701021P	3" RIGID METALLIC CONDUIT	320 LF
701030P	3" RIGID NONMETALLIC CONDUIT	690 LF
701102M	18" x 36" JUNCTION BOX	4 UNITS
701117M	JUNCTION BOX FOUNDATION	6 UNITS
701159M	FOUNDATION, TYPE 1M-MC	1 UNIT
701177M	METER CABINET, TYPE 1M-MC	1 UNIT
701192P	GROUND WIRE, NO. 8 AWG	1010 LF
701195P	MULTIPLE LIGHTING WIRE, NO. 2 AWG	6562 LF
701210P	SERVICE WIRE, NO. 2 AWG	246 LF
703003M	LIGHTING STANDARD ALUMINUM	6 UNITS
703012M	LIGHTING MAST ARM ALUMINUM	6 UNITS
703018M	LUMINAIRE	6 UNITS

STATE	FEDERAL PROJECT NO.
N.J.	*



- NOTES:
1. SEE ITS PLANS.
 2. SEE TRAFFIC SIGNAL ELECTRICAL PLANS FOR SIGNAL POLE LIGHTING.
 3. UNLESS OTHERWISE NOTED ALL LUMINAIRES ARE TYPE III.

30' 20' 10' 0 30' 60'

HL-1
HL-2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

HIGHWAY LIGHTING PLANS

ROUTE 00

MUNICIPALITY XXXXX TOWNSHIP COUNTY XXXXX

ROUTE 00 & SIDE ROAD

LOAD CENTER "NR"

Individual, Firm, Partnership, etc.

(signature) (date)

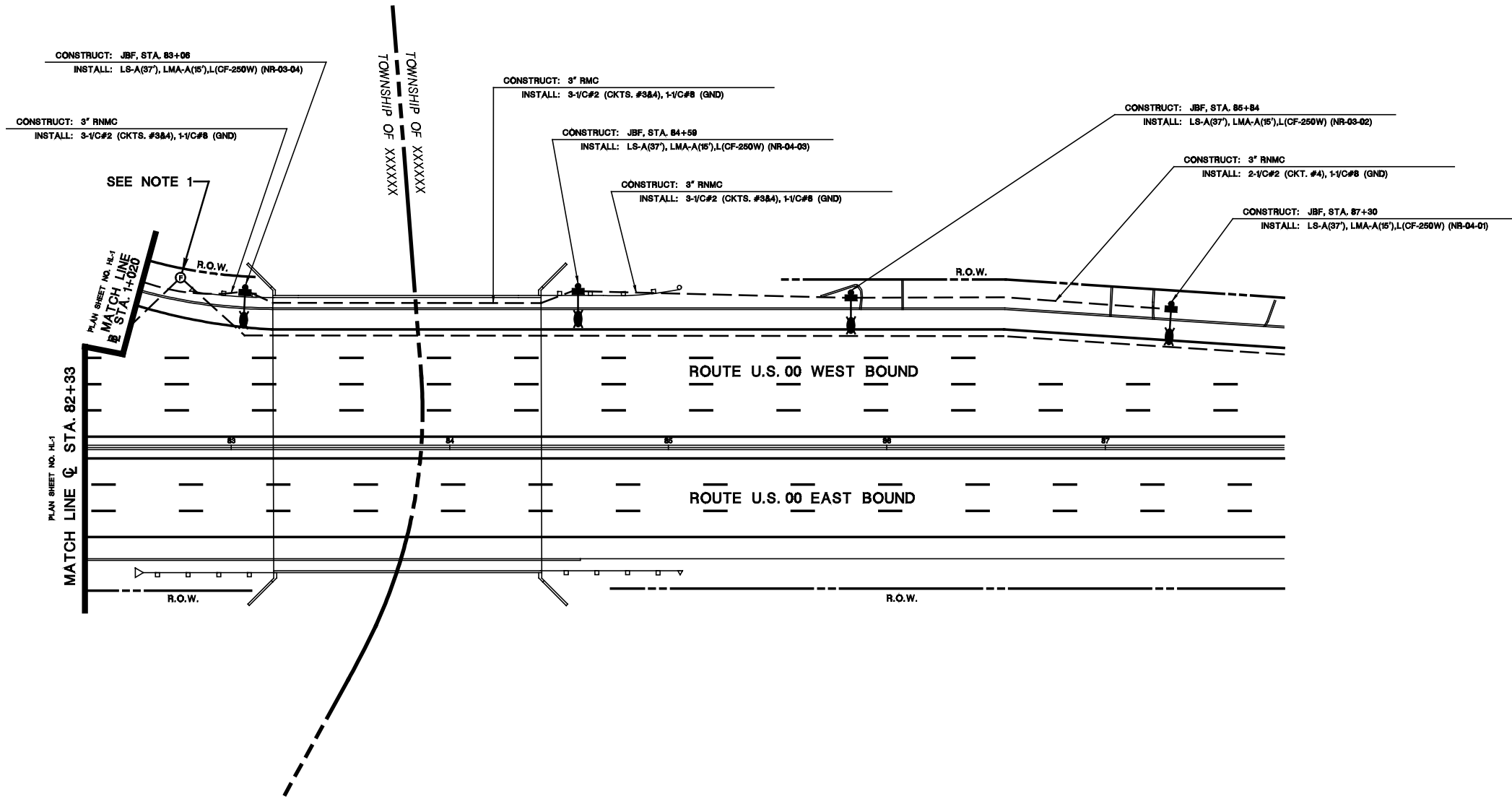
John L. Doe

N.J.P.E. LIC. NO. 00000

35

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
701021P	3" RIGID METALLIC CONDUIT	150 LF
701030P	3" RIGID NONMETALLIC CONDUIT	443 LF
701117M	JUNCTION BOX FOUNDATION	4 UNITS
701195P	MULTIPLE LIGHTING WIRE, NO. 2 AWG	6562 LF
703003M	LIGHTING STANDARD ALUMINUM	4 UNITS
703012M	LIGHTING MAST ARM ALUMINUM	4 UNITS
703018M	LUMINAIRE	4 UNITS
701192P	GROUND WIRE, NO. 8 AWG	600 LF

STATE	FEDERAL PROJECT NO.
N.J.	*



NOTES:
1. SEE ITS PLANS.
2. UNLESS OTHERWISE NOTED ALL LUMINAIRES ARE TYPE III.

30' 20' 10' 0 30' 60'

NEW JERSEY DEPARTMENT OF TRANSPORTATION

HIGHWAY LIGHTING PLANS

ROUTE 00
MUNICIPALITY XXXXX TOWNSHIP COUNTY XXXXX
ROUTE 00 & SIDE ROAD
LOAD CENTER "NR"

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 00000

CONTROL SECTION
NO. XXXXXXXX

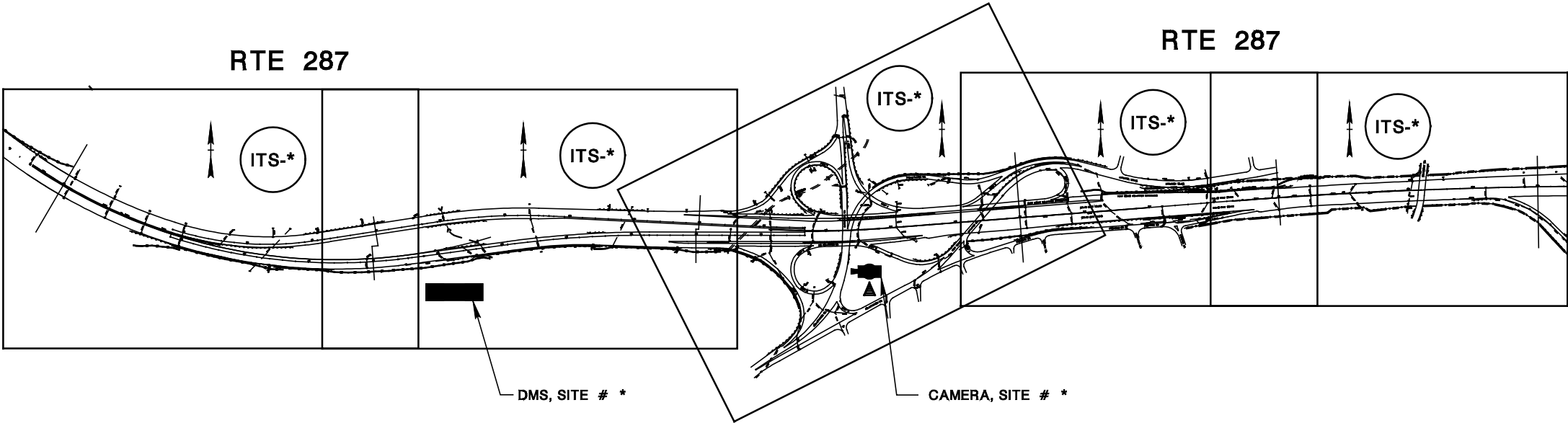
36

SITE LOCATION CHART

TOC N/S	JOB SITE	PLAN SHEET	ROUTE AND INTERSECTION	MUNICIPALITY	COUNTY	DEVICE	TYPE	COMMUNICATIONS
N	*	ITS-*	ROUTE 78 EB M.P. 28.6	BEDMINSTER TOWNSHIP	SOMERSET	DMS	FRONT ACCESS 27" X 90"	WIRELESS
N	*	ITS-*	ROUTE 78 EB M.P. 34.7	BEDMINSTER TOWNSHIP	SOMERSET	DMS	FRONT ACCESS 27" X 70"	WIRELESS
N	*	ITS-*	ROUTE 287 SB M.P. 23.55	FAR HILLS BOROUGH	SOMERSET	CAMERA	DOME	FIBEROPTIC
N	*	ITS-*	ROUTE 287 NB PRIOR TO EXIT 30 M.P. 28.2	BERNARDS TOWNSHIP	SOMERSET	DMS	WALK-IN 27" X 90"	FIBEROPTIC
N	*	ITS-*	ROUTE 287 AT NORTH MAPLE AVE.	BERNARDS TOWNSHIP	SOMERSET	CAMERA	DOME	FIBEROPTIC
N	*	ITS-*	ROUTE 287 AT MT. AIRY ROAD	BERNARDS TOWNSHIP	SOMERSET	CAMERA	DOME	DSL
N	*	ITS-*	ROUTE 287 FROM M.P. 21	BEDMINSTER TOWNSHIP	SOMERSET	HUB	N/A	FIBEROPTIC
N	*	ITS-*	ROUTE 287/ROUTE 78 HAR	BEDMINSTER TOWNSHIP	SOMERSET	HAR	N/A	FIBEROPTIC
N	*	ITS-*	ROUTE 287 AND ROUTE 10	HANOVER TOWNSHIP	MORRIS	CAMERA	POSITIONAL	BROAD BAND CABLE

GENERAL CONSTRUCTION NOTES

- STATIONS ARE APPROXIMATE AND ARE FOR INFORMATIONAL PURPOSES ONLY.
- ENSURE THAT THE MINIMUM DISTANCE SPECIFIED BY THE UTILITY OWNER IS MAINTAINED BETWEEN ALL EXISTING UNDERGROUND UTILITIES AND ALL PROPOSED UNDERGROUND
- COMPLETE GUIDE RAIL INSTALLATIONS AND UPGRADES PRIOR TO INSTALLING ABOVE GROUND ITS FACILITIES.
- CONTACT TRAFFIC OPERATIONS FOR MARK OUT OF EXISITNG ITS UNDERGROUND WIRES AND CABLES.



LEGEND OF SYMBOLS AND NOTATIONS

EXISTING	PROPOSED	
		JUNCTION BOX ITS
		CAMERA (WITH BLIND SPOT)
		HIGHWAY ADVISORY RADIO ANTENNA
		HAR SIGN
		DMS
		TRAVEL TIME SYSTEM
		ITS WIRES & CABLES
		CONTROLLER CABINET W/SIDEWALK
		18" X 36" JUNCTION BOX
		METER CABINET
		CONTROLLER
		IMAGE DETECTOR
		GRID PAVERS



NEW JERSEY DEPARTMENT OF TRANSPORTATION

ITS LOCATION PLAN

ROUTE 00

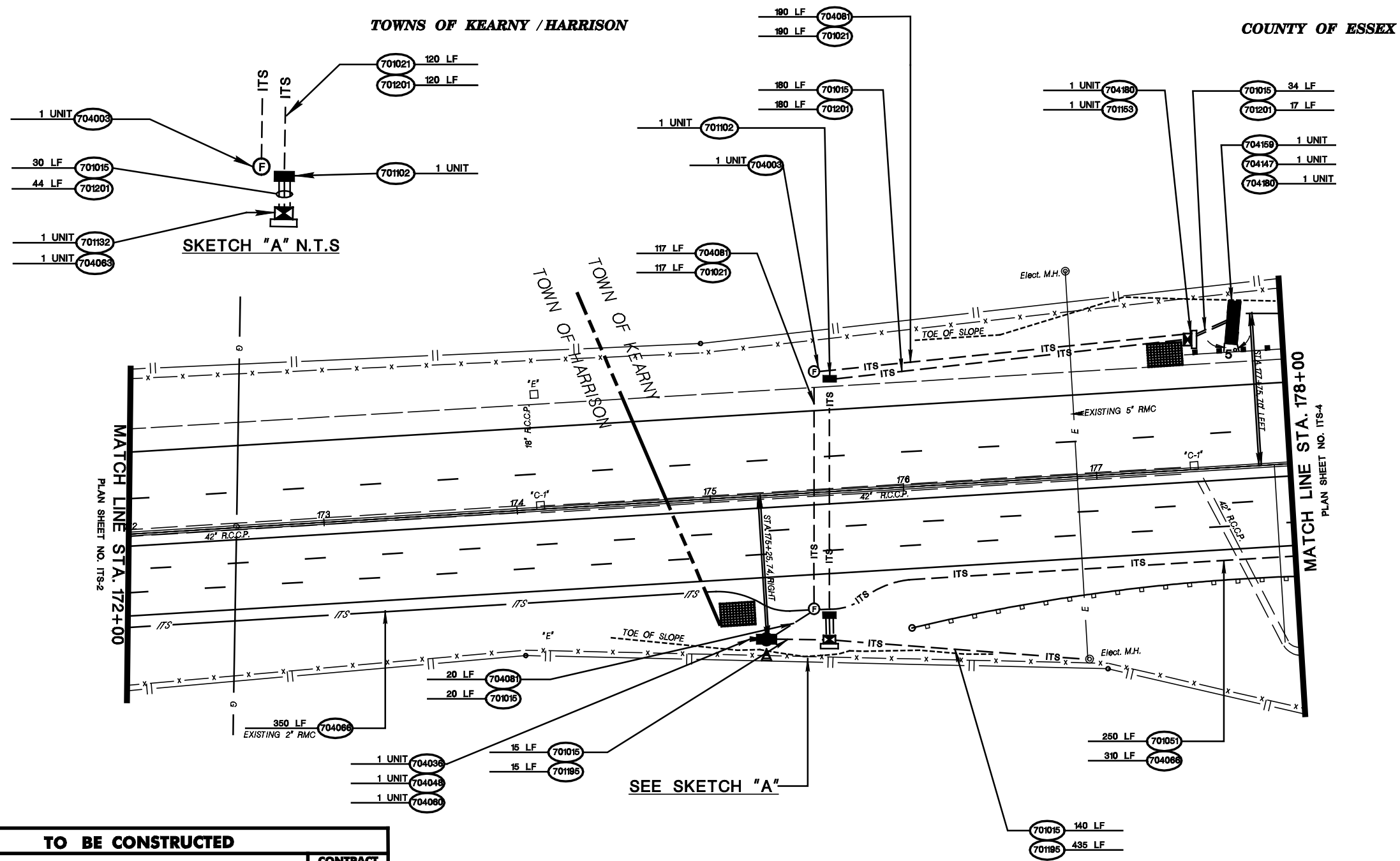
CONTRACT NO. 1234567

Individual, Firm, Partnership, etc.

(signature) (date)

Name

N.J.P.E. LIC. NO. *



TO BE CONSTRUCTED		
ITEM NO.	DESCRIPTION	CONTRACT QUANTITY
701015P	2" RIGID METALLIC CONDUIT	420 LF
701021P	3" RIGID METALLIC CONDUIT	427 LF
701051P	3-1/4" FLEXIBLE NONMETALLIC CONDUIT	250 LF
701102M	18" x 36" JUNCTION BOX	2 UNIT
701132M	FOUNDATION, TYPE P-MC	1 UNIT
701153M	FOUNDATION, TYPE 1M	1 UNIT
701195P	MULTIPLE LIGHTING WIRE, NO. 2 AWG	450 LF
701201P	MULTIPLE LIGHTING WIRE, NO. 8 AWG	361 LF
704003M	JUNCTION BOX ITS, TYPE A	2 UNIT
704036M	FOUNDATION CSS TYPE A	1 UNIT
704048M	CAMERA STANDARD, TYPE A	1 UNIT
704060M	CAMERA	1 UNIT
704063M	CONTROLLER CAMERA	1 UNIT
704066P	FIBER OPTIC CABLE TYPE A	660 LF
704081P	FIBER OPTIC CABLE TYPE F	327 LF
704147M	FOUNDATION DMS TYPE A	1 UNIT
704159M	DMS STANDARD TYPE A	1 UNIT
704180M	DMS SIGN WITH CONTROLLER INSTALL	1 UNIT

NOTE:
DMS IS DAKTRONICS MODEL NO. VF-2000- 27X70-66-A



NEW JERSEY DEPARTMENT OF TRANSPORTATION

ITS PLANS

ROUTE 00

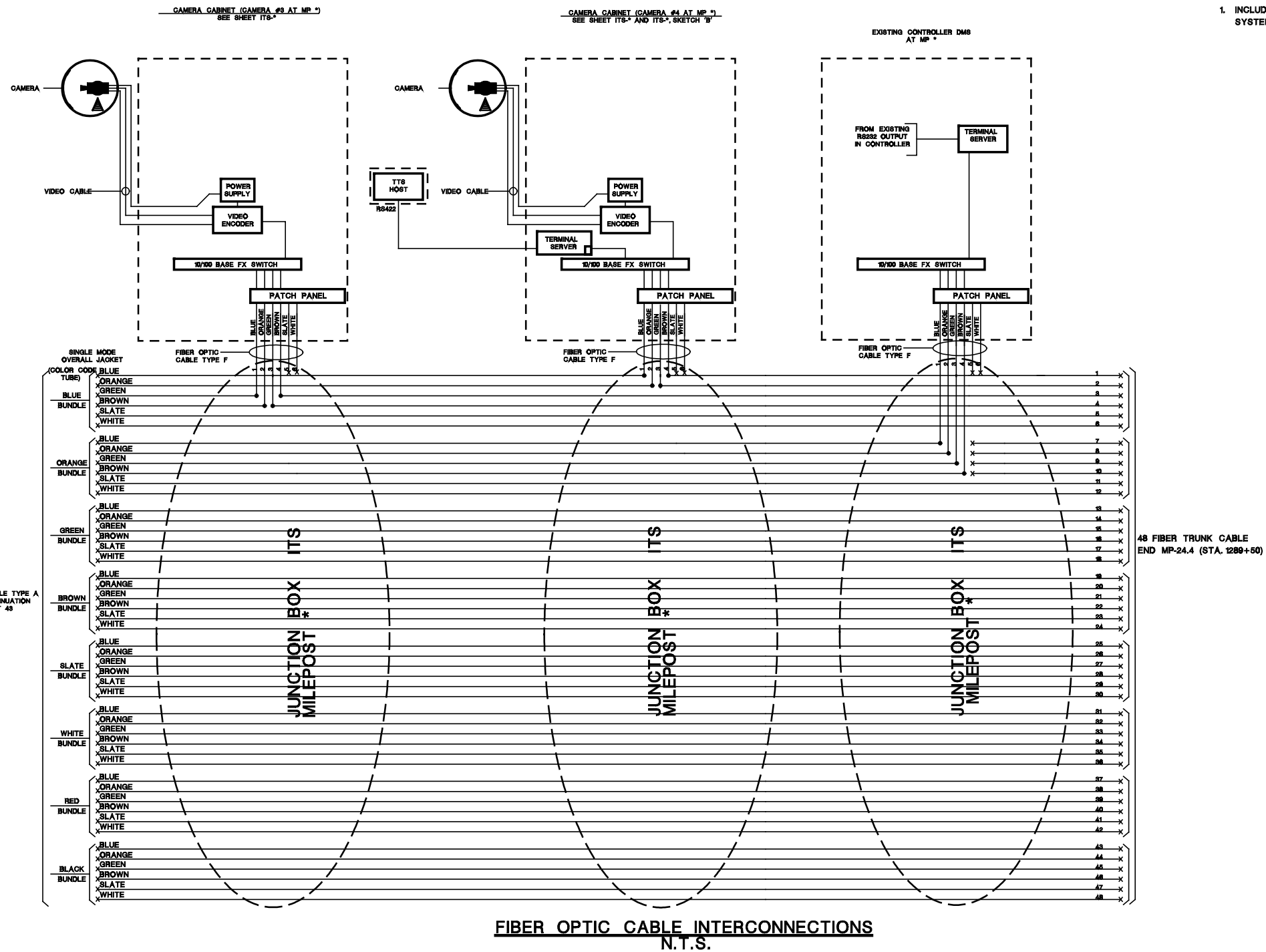
CONTRACT NO. 1234567

Individual, Firm, Partnership, etc.

(signature) (date)

Name

N.J.P.E. LIC. NO. *



NEW JERSEY DEPARTMENT OF TRANSPORTATION

**FIBER SYSTEM BLOCK
DIAGRAM**

ROUTE *

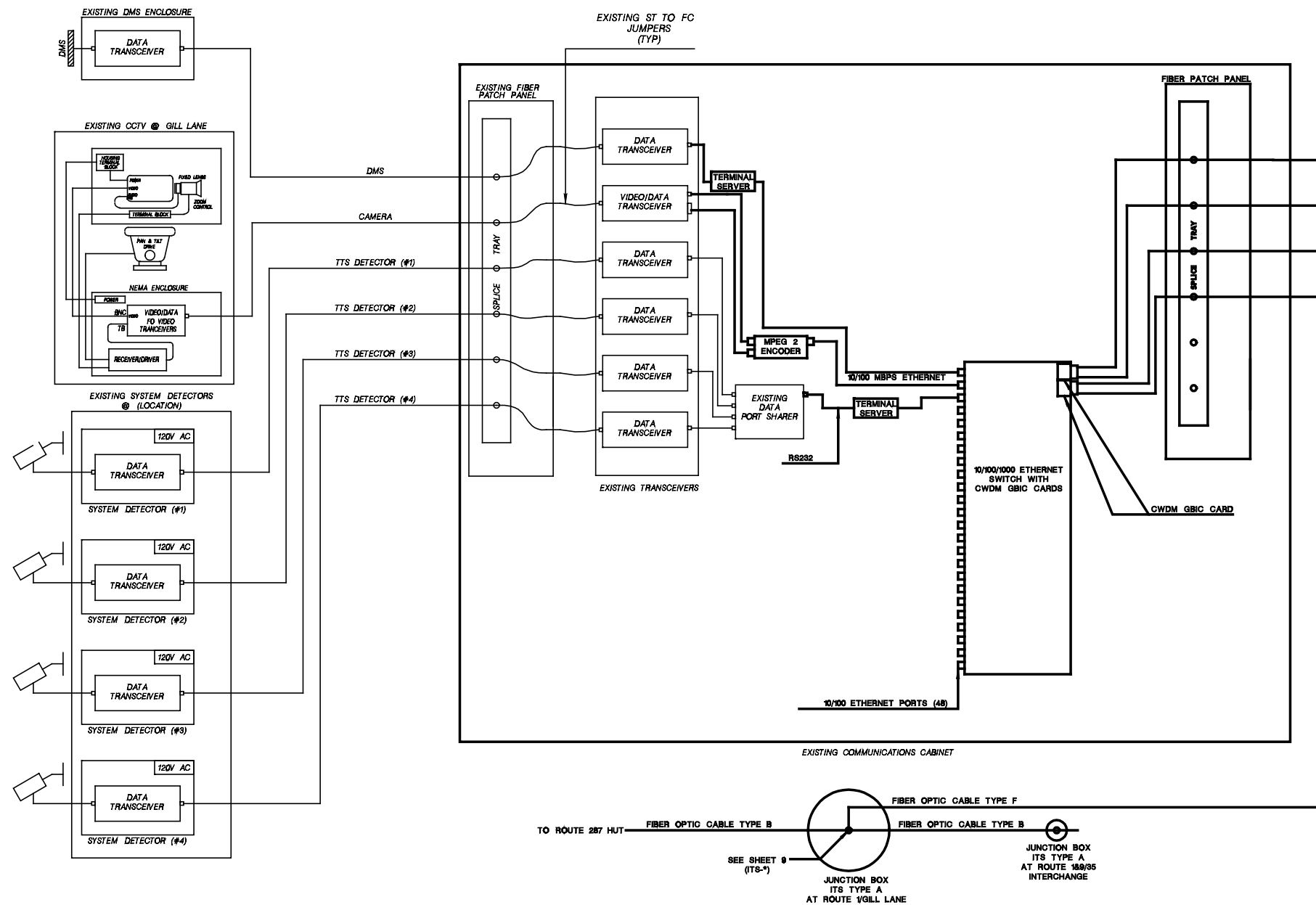
CONTRACT NO. *

Individual, Firm, Partnership, etc.

Signature (date)

Name

N.J.P.E. LIC. NO. *



COMMUNICATION CABINET - BLOCK DIAGRAM
(LOCATION)
N.T.S.

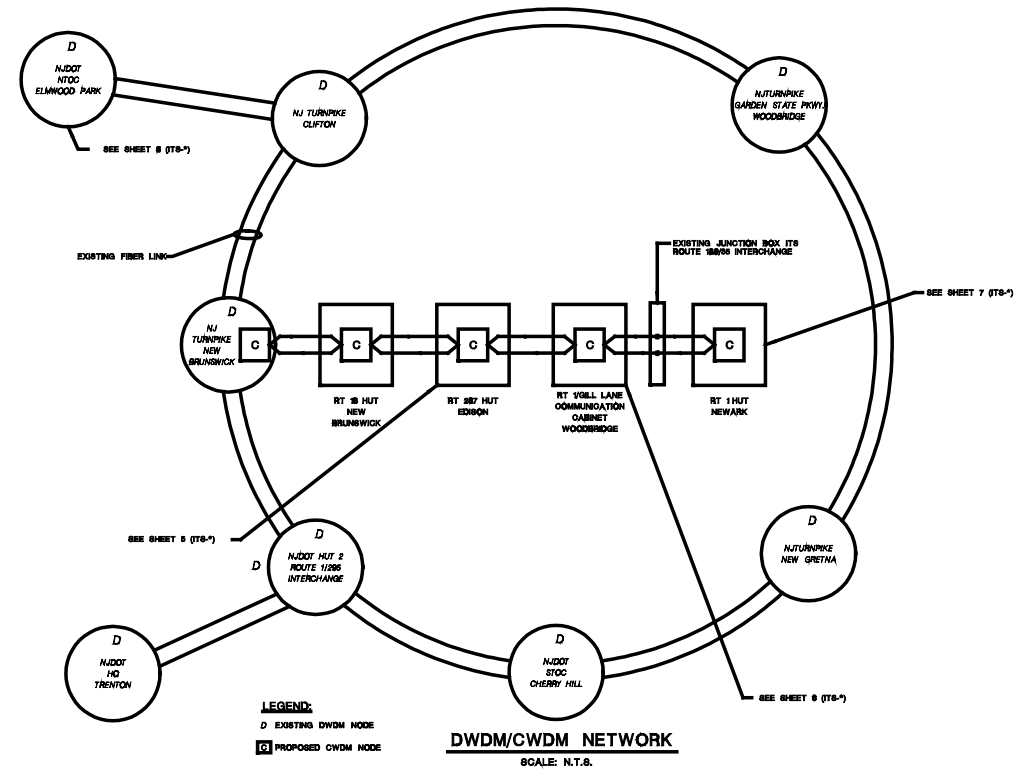


TABLE D MODIFICATIONS TO COMMUNICATIONS EQUIPMENT						
EQUIPMENT NAME	NTOD, ELWOOD PARK	NEWARK HUT	ROUTE 1/8/85 INTERCHANGE	ROUTE 1/8/85 INTERCHANGE	ROUTE 1/8/85 INTERCHANGE	ROUTE 1/8/85 INTERCHANGE
DWDM GBIC CARD	1	2	2	2	2	1
GBIC CARD AT DWDM SWITCH	1					1
GBIC CARD AT ETHERNET SWITCH	1	1	1	1	1	1
10/100/1000 ETHERNET SWITCH	1	1	1	1	1	1
MPEG 2 ENCODER	22	2	2	2	2	2
TERMINAL SERVER	5	1	2	2	2	2
PORT SHARER	4					
MULTIPOINT DATA MODEMS	4					
FIBER OPTIC PATCH PANEL		1		1		

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ITS SYSTEM BLOCK DIAGRAM

ROUTE *

CONTRACT NO. *

Individual, Firm, Partnership, etc.

(signature) (date)

Name

N.J.P.E. LIC. NO. *

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DOT 7.2.1 - ORIGINAL SHEET

PLANTING SUMMARY

ITEM NO.	DESCRIPTION	SYM.	PLANT NAME	PLAN SHEET QUANTITY	"IF & WHERE" DIRECTED QUANTITY	CONTRACT QUANTITY	AS-BUILT QUANTITY
811003M	Large Deciduous Tree, 3"-3 1/2" Caliper, B&B	Ar	Acer rubrum 'Red Sunset'	5		10	
		Tc	Tilia cordata 'Greenspire'	5			
811006M	Large Deciduous Tree, 2"-2 1/2" Caliper, B&B	Lt	Liriodendron tulipifera	3	5	12	
		Ls	Liquidambar styraciflua	4			
811009M	Large Deciduous Tree, 1"-1 1/4" Caliper, B&B	As	Acer saccharum 'Green Mountain'	4		10	
		Mg	Magnolia grandiflora	6			
811021M	Small Deciduous Tree, 3"-3 1/2" Caliper, B&B	Pc	Pyrus calleryana 'Aristocrat'	7		7	
811024M	Small Deciduous Tree, 2"-2 1/2" Caliper, B&B	Pr	Pyrus calleryana 'Red Spire'	4		4	
811027M	Small Deciduous Tree, 1 1/4"-1 1/2" Caliper, B&B					14	
		Mp	Malus 'Pink Perfection'	6			
		Pr	Prunus sargentii	8			
811033M	Evergreen Tree, 9'-10' High, B&B	Pa	Picea abies	8		18	
		Pm	Pseudotsuga menziesii	3	7		
811036M	Evergreen Tree, 8'-9' High, B&B	Pi	Pinus strobus	11		15	
		To	Thuja orientalis	4			
811045M	Evergreen Tree, 4'-5' High, B&B	Ps	Pinus strobus	3		10	
		P	Picea abies	7			
811057M	Deciduous Shrub, 3'-4' High, B&B	E	Euonymus alata	10		19	
		V	Viburnum dentatum	9			
811060M	Deciduous Shrub, 2'-3' High, B&B	S	Spiraea bumalda 'Anthony Waterer'	18		33	
		F	Forsythia intermedia spectabilis	15			
811066M	Deciduous Shrub, 15"-18" High, #2 Container	A	Aronia arbutifolia	15		41	
		C	Clethra alnifolia	26			
811072M	Evergreen Shrub, 30"-36" High, B&B	Im	Ilex x. meserveae 'Blue Maid'	32		48	
		Ip	Ilex x. meserveae 'Blue Prince'	16			
811075M	Evergreen Shrub, 24"-30" High, B&B	In	Ilex 'Nellie R. Stevens'	6		18	
		Ig	Ilex glabra	12			
811078M	Evergreen Shrub, 18"-24" High, #3 Container	Rc	Rhododendron catawbiense 'Roseum Elegans'	10		25	
		Ad	Azalea 'Delaware Valley White'	15			
811084M	Evergreen Shrub, 3'-4' Spread, B&B	Tx	Taxus densiforma	56	7	63	
811093M	Evergreen Shrub, 18"-24" Spread, #3 Container	Jw	Juniperus horizontalis 'Wiltoni'	20		20	
811096M	Evergreen Shrub, 12"-15" Spread, #2 Container	Jc	Juniperus chinensis Sargentii	23		69	
		Cs	Cotoneaster dammeri 'Skogsholmen'	46			
811099M	Groundcover or Vine, #1 Container	Cr	Campsis radicans	39		81	
		Pe	Phlox paniculata 'Eva Cullum'	42			
811102M	Groundcover or Vine, 4" Pot	Pt	Parthenocissus tricuspidata 'Veitchi'	264		264	
811105M	Groundcover or Vine, 2 1/4" Pot	Hb	Hedera helix 'Baltica'	226		226	
811108M	Groundcover or Vine, 2" Plug	Sa	Spartina alterniflora	567		1462	
		Spp	Spartina patens	895			
811111M	Perennial, #1 Container	Ep	Echinacea purpurea	289	55	819	
		Ca	Calamagrostis arundinacea 'Karl Foerster'	475			
811114M	Perennial, #SP5	Hh	Hemerocallis 'Happy Returns'	600		1075	
		Hl	Hemerocallis 'Little Grapette'	475			
811117M	Perennial, #SP4	Rh	Rudbeckia hirta	785		785	
811120M	Perennial, 2" Plug	Ana	Aster novae-angliae	650		960	
		Cv	Coreopsis verticillata 'Moonbeam'	310			
811123M	Bulb	N	Narcissus	1254		2129	
		Iv	Irish versicolor	875			
811135M	Rhizome	Ac	Acorus calamus	254		578	
		Na	Nuphar advena	324			
811129M	Tuber	Ap	Alisma plantago-aquatica	268		268	
811132M	Root	Sp	Sparganium americanum	186		186	
			** Full size description will be on the individual plan sheets				

STATE	FEDERAL PROJECT NO.
N.J.	NH-4589(103)

NEW JERSEY DEPARTMENT OF TRANSPORTATION

LANDSCAPE PLANS
ROUTE 676
CONTRACT NO. 000000000

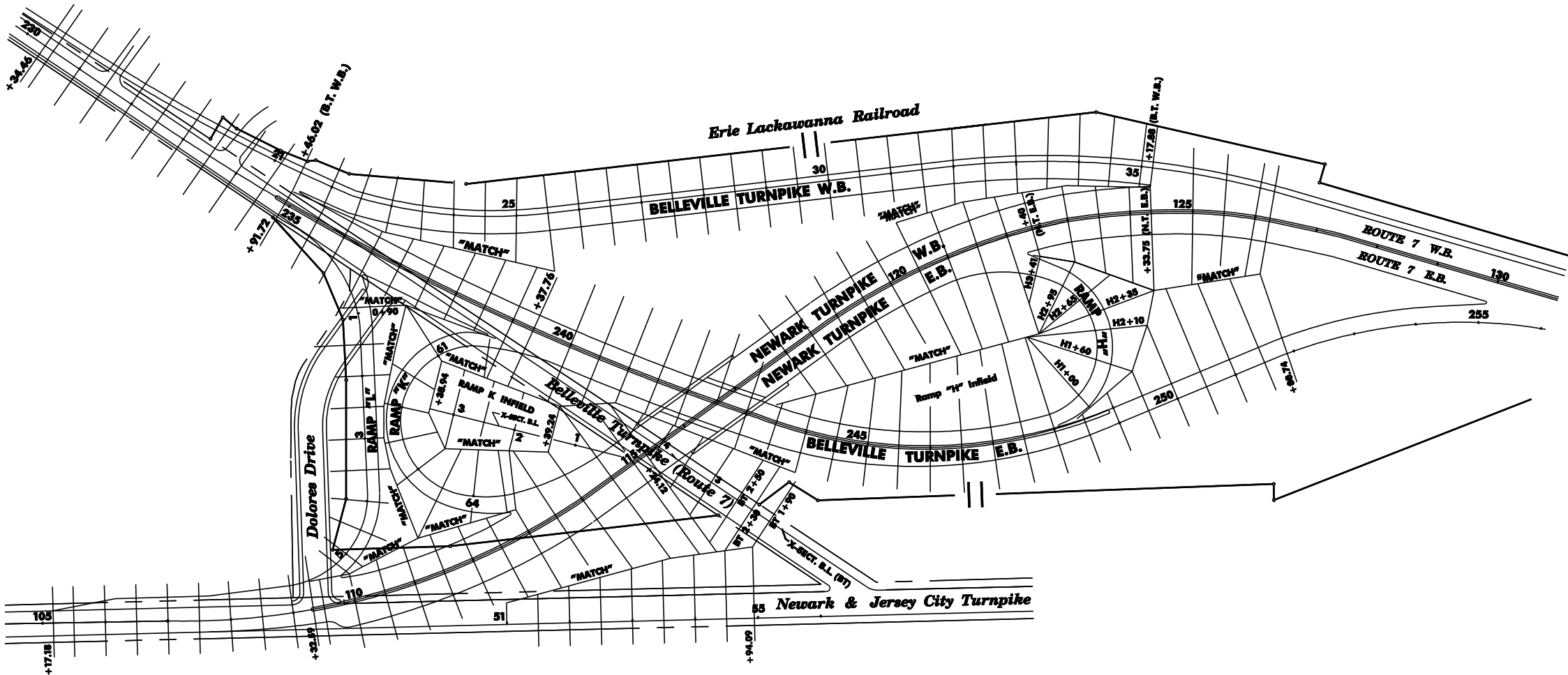
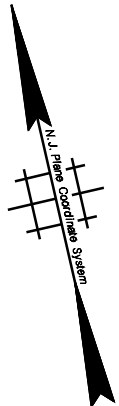


TO BE PLANTED						
ITEM NO.	DESCRIPTION	SYM.	PLANT NAME	SPACING	CONTRACT QUANTITY	AS-BUILT QUANTITY
811027M	Small Deciduous Tree, 1 1/4"-1 1/2" Caliper, B&B	Mpf	Malus 'Prairifire'		12	
811027M	Small Deciduous Tree, 1 1/4"-1 1/2" Caliper, B&B	Pak	Prunus serrulata 'Kwanzan'		17	
811060M	Deciduous Shrub, 2'-3' High, B&B	Ea	Euonymus alata 'Compacta'	4'	63	
811060M	Deciduous Shrub, 2'-3' High, B&B	Fs	Forythia intermedia 'Spectabilis'	4'	903	
811060M	Deciduous Shrub, 2'-3' High, B&B	Lo	Ligustrum obtusifolium 'Regellianum'	4'	55	

42

TOWNSHIP OF BORDENTOWN

COUNTY OF BURLINGTON



MS-1
MS-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION

METHOD OF CROSS SECTIONS
ROUTE 295
CONTRACT NO. 010010001

NOTE:
ALL CROSS SECTIONS ARE TAKEN RADIAL TO
A BASE LINE AND AT 50' INTERVALS UNLESS
OTHERWISE NOTED.

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

C = 172
F = 2
SC = 16
SF = 43
TS = 46

C = 194
F = 0
SC = 194
SF = 0
TS = 50

C = 215
F = 0
SC = 59
SF = 0
TS = 55

LEGEND

C = CUT
F = FILL
EUW = EXCAVATION, UNCLASSIFIED
IN WET AREA
UMX = UNSUITABLE MATERIAL
SM = SELECTED MATERIAL
TS = TOPSOILING, 4 INCH THICK
SC = STRIPPING IN CUT
SF = STRIPPING IN FILL
F&S = FERTILIZING AND SEEDING
ROP = REMOVAL OF PAVEMENT

SQ. FT.
SQ. FT.
SQ. FT.
SQ. FT.
SQ. FT.
LIN. FT.
LIN. FT.
LIN. FT.
SQ. FT.

NOTES

ALL CROSS-SECTIONS ARE RADIAL OR AT RIGHT ANGLES TO THE
BASE LINES EXCEPT WHERE OTHER METHODS ARE INDICATED.
EXCAVATION AND EMBANKMENT QUANTITIES SHOWN ON THE CROSS
SECTIONS ARE MEASURED BETWEEN THE DASHED LINES
REPRESENTING THE SURFACE OF THE EXISTING GROUND AND THE
SOLID LINES REPRESENTING THE LIMITS OF EXCAVATION OR
EMBANKMENT. WHERE TOPSOIL IS PROPOSED, THE SOLID LINES
INDICATE THE BOTTOM OF THE PROPOSED TOPSOIL.
THE PROPOSED GRADES SHOWN ON THE CROSS-SECTIONS ARE FOR
ESTIMATING QUANTITIES.

ROUTE 295 B.L. STA. 252+30 - 253+00

X-1
X-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

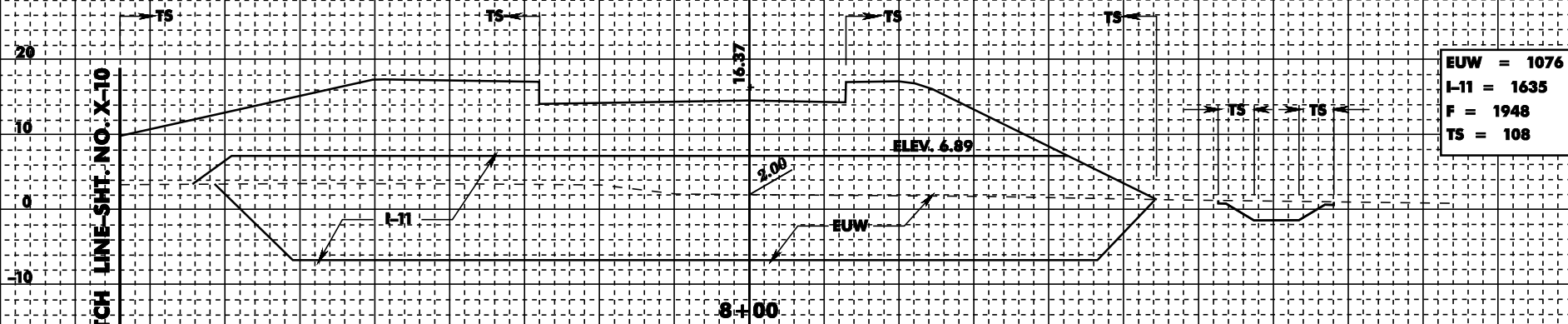
CROSS SECTIONS

ROUTE 295

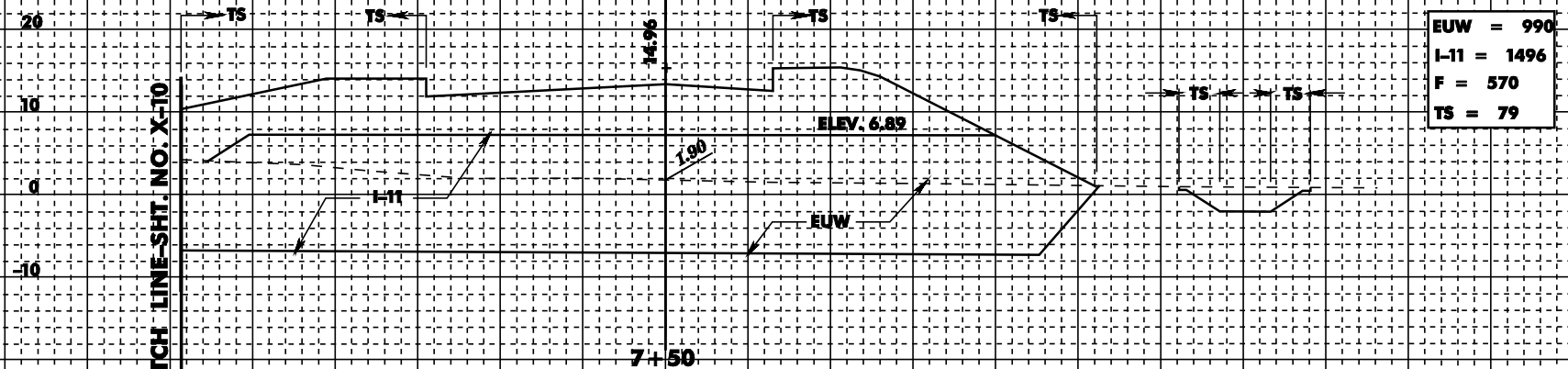
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

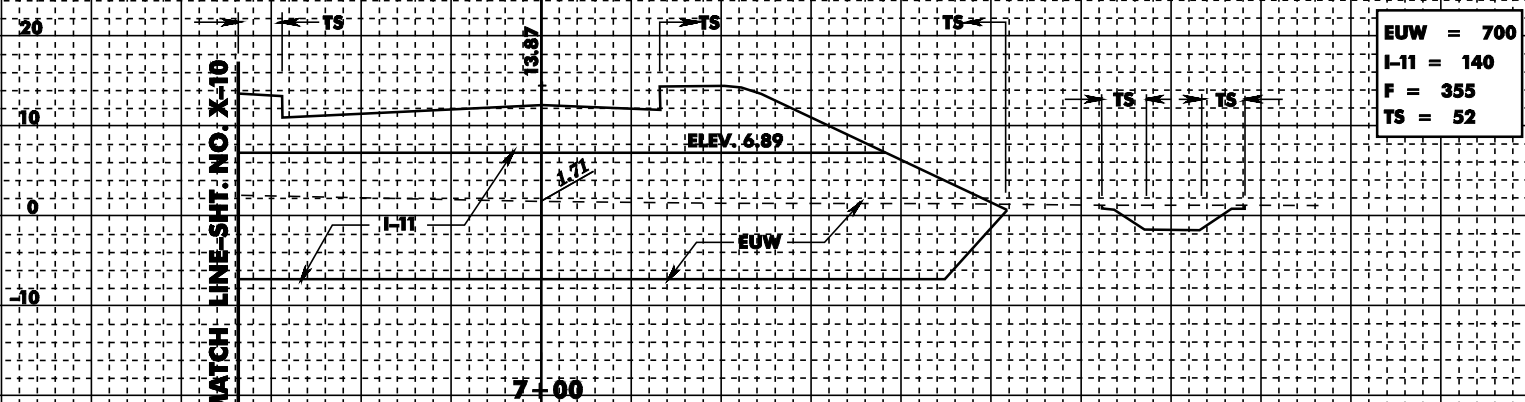
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MATCH LINE-SHT. NO. X-10



MATCH LINE-SHT. NO. X-10



ROUTE 7 B.L. STA. 7+00 - 8+00

X-2
X-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

ROUTE 7

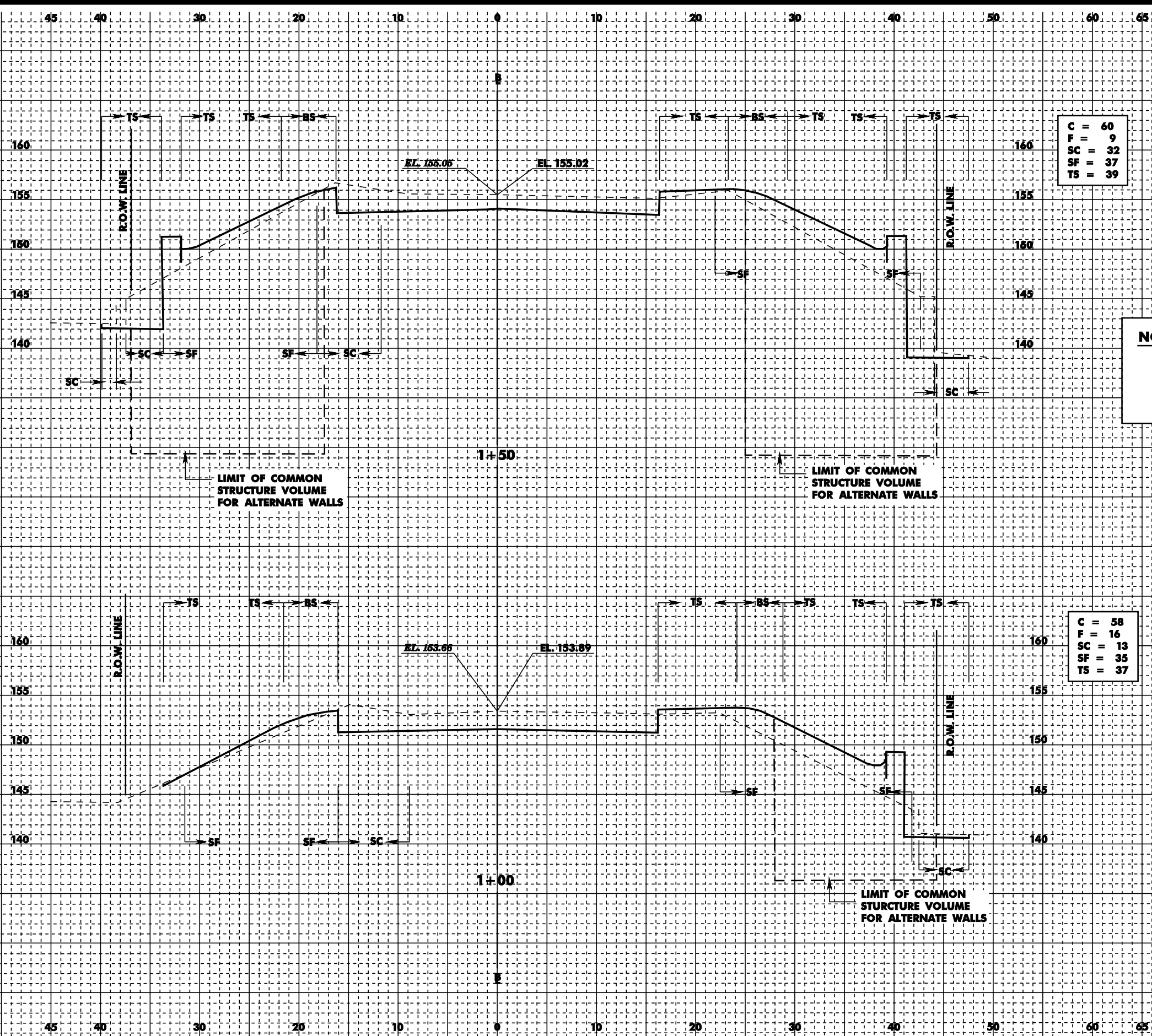
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.

(signature) (date)

John L. Doe

N.J.P.E. LIC. NO. 99999



C = 60
F = 9
SC = 32
SF = 37
TS = 39

NOTE
REFER TO CONSTRUCTION PLANS FOR
CONSTRUCTION EASEMENT LINES WHEN
WORK IS PROPOSED OUTSIDE OF EXISTING
R.O.W.

C = 58
F = 16
SC = 13
SF = 35
TS = 37

BASELINE STA. 1+00 - 1+50

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TUTTLE PARKWAY BRIDGE
CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.
(signature) (date)
John L. Doe
N.J.P.E. LIC. NO. 99999

BACK
C = 56
F = 8
SF = 17
TS = 17

AHEAD
C = 56
F = 3
SC = 30
SF = 11
TS = 11

C = 48
F = 4
SC = 30
SF = 13
TS = 13

C = 57
F = 1
SC = 30
SF = 2
TS = 2

BACK
C = 52
F = 0
SC = 21
SF = 0
TS = 0

AHEAD
C = 67
F = 0
SC = 27
SF = 0
TS = 0

ROUTE 295 S.B. B.L. STA. 73+00 - 74+50

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

ROUTE 295

CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.

(signature) (date)

John L. Doe

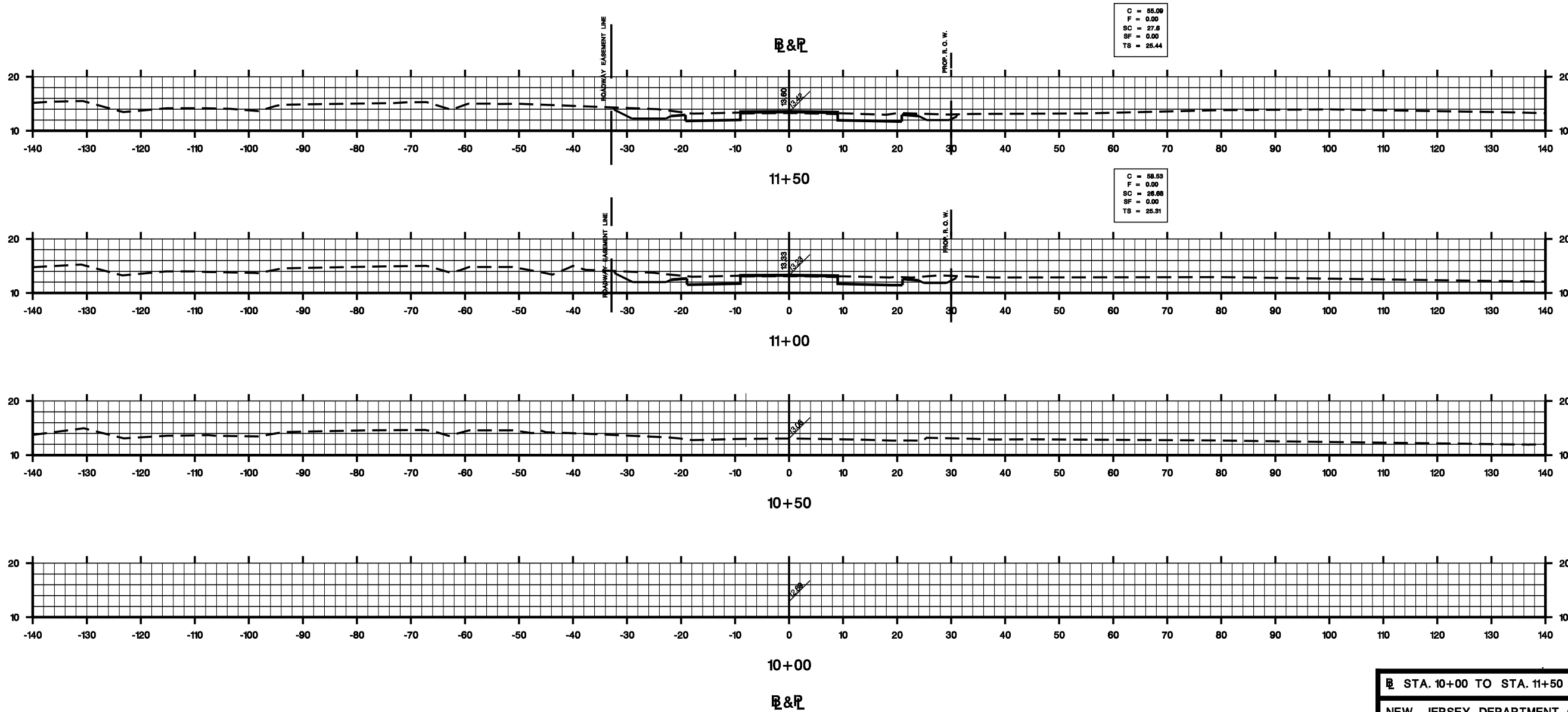
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Sample No: 1

Earthwork Summary

Description	Contract Quantity
I Excavation	
(A) Excavated Materials	
(1) Excavation, Unclassified available for I-14 Embankment	
Excavation from Cross Sections (except for Regulated Material and/or Acid Producing Soil)	9,396 CY
Excavation from Plan Sheets (except for Regulated Material and/or Acid Producing Soil)	5,053 CY
Less Removal of Pavement (2,790 SY x 12" thick)	-921 CY
Stripping in Cuts (1818 SY x 4" thick)	-200 CY
Total Excavation, Unclassified	13,328 CY
Removal of Pavement (2,790 SY x 12" thick)	921 CY
Less Unsuitable Excavation Unclassified	-300 CY
Unsuitable Pavement (820 SY x 12" thick)	-271 CY
Total	13,678 CY
(2) Excavation, Regulated Material available for I-14 Embankment	
Excavation, Regulated from Cross Sections	10,671 CY
Excavation, Regulated from Plan Sheets	420 CY
Excavation, Regulated of pipes, inlets & other substructures	65 CY
Total Excavation, Regulated Material	11,156 CY
Less Unsuitable Excavation Regulated Material, Hazardous	-210 CY
Unsuitable Excavation Regulated Material	-300 CY
Total	10,646 CY
Disposal of Regulated Material, Hazardous (210 * 1.755 TON/CY)	369 TON
Disposal of Regulated Material (300 * 1.755 TON/CY)	527 TON
(3) Excavation, Acid Producing Soil available for I-14 Embankment	
Excavation, Acid Producing Soil from Cross Sections	2,100 CY
Excavation, Acid Producing Soil from Plan Sheets	520 CY
Excavation, Acid Producing Soil of pipes, inlets & other substructures	145 CY
Total Excavation, Acid Producing Soil	2,765 CY
Less Unsuitable Excavation Acid Producing Soil	-700 CY
Total	2,065 CY
Disposal of Acid Producing Soil (700 * 1.755 TON/CY)	1,229 TON
Total Excavated Materials available for I-14 Embankment (Total of 1+2+3)	23,750 CY
(13678 + 10,646 + 2,065)* 0.90 shrinkage)	
(B) I-14 Embankment Quantity Required	
Embankment from Cross Sections	7,986 CY
Embankment from Plan Sheets	2,840 CY
Less I-13 Soil Aggregate	-300 CY
I-11 Soil Aggregate	-250 CY
I-10 Soil Aggregate	-145 CY
I-9 Soil Aggregate	-85 CY
I-7 Soil Aggregate	-100 CY
Stripping in Fill	175 CY
Total	10,121 CY
Excavated Materials Excess (Suitable for I-14 Embankment)	13,629 CY
Excavated Materials to be Borrowed (Suitable for I-14 Embankment)	0 CY
II Topsoiling	
(A) Topsoil Available	
Stripping in Cut	200 CY
Stripping in Fill	175 CY
Total Stripping available for Topsoil	375 CY
(B) Topsoil Required	
Topsoiling, 4" Thick from Cross Sections	2,750 SY
Topsoiling, 4" Thick from Plan Sheets	1,450 SY
Total Topsoiling 4" Thick required in SY	4,200 SY
Total Topsoiling 4" Thick required in CY (4,200 SY x 4" thick)	466 CY
Excess Topsoil	0 CY
Borrow Topsoil	91 CY

Sample No: 2

Earthwork Summary

Description	Federal Quantity	Town center Associates Quantity	100% State Quantity	Contract Quantity
I Excavation				
(A) Excavated Materials				
(1) Excavation, Unclassified available for I-14 Embankment				
Excavation from Cross Sections (except for Regulated Material and/or Acid Producing Soil)	5,696 CY	0 CY	3,700 CY	9,396 CY
Excavation from Plan Sheets (except for Regulated Material and/or Acid Producing Soil)	5,053 CY	0 CY	0 CY	5,053 CY
Less Removal of Pavement (2,790 SY x 12" thick)	-800 CY	-21 CY	-100 CY	-921 CY
Stripping in Cuts (1818 SY x 4" thick)	-150 CY	-50 CY	0 CY	-200 CY
Total Excavation, Unclassified	9,799 CY	-71 CY	3,600 CY	13,328 CY
Removal of Pavement (2,790 SY x 12" thick)	800 CY	21 CY	100 CY	921 CY
Less Unsuitable Excavation Unclassified	-300 CY	0 CY	0 CY	-300 CY
Unsuitable Pavement (820 SY x 12" thick)	-226 CY	0 CY	-45 CY	-271 CY
Total	10,073	-50	3,655	13,678 CY
(2) Excavation, Regulated Material available for I-14 Embankment				
Excavation, Regulated from Cross Sections	6,311 CY	3,671 CY	689 CY	10,671 CY
Excavation, Regulated from Plan Sheets	220 CY	0 CY	200 CY	420 CY
Excavation, Regulated of pipes, inlets & other substructures	55 CY	10.00 CY	0.00 CY	65 CY
Total Excavation, Regulated Material	6,586 CY	3,681 CY	889 CY	11,156 CY
Less Unsuitable Excavation Regulated Material, Hazardous	-210 CY	0.00 CY	0.00 CY	-210 CY
Unsuitable Excavation Regulated Material	-300 CY	0 CY	0 CY	-300 CY
Total	6,076.00 CY	3,681.00 CY	889.00 CY	10,646 CY
Disposal of Regulated Material, Hazardous (210 * 1.755 TON/CY)	369 TON	0 TON	0 TON	369 TON
Disposal of Regulated Material (300 * 1.755 TON/CY)	527 TON	0 TON	0 TON	527 TON
(3) Excavation, Acid Producing Soil available for I-14 Embankment				
Excavation, Acid Producing Soil from Cross Sections	2,000 CY	0 CY	100 CY	2,100 CY
Excavation, Acid Producing Soil from Plan Sheets	485 CY	0 CY	35 CY	520 CY
Excavation, Acid Producing Soil of pipes, inlets & other substructures	145 CY	0 CY	0 CY	145 CY
Total Excavation, Acid Producing Soil	2,630 CY	0 CY	135 CY	2,765 CY
Less Unsuitable Excavation Acid Producing Soil	-700 CY	0 CY	0 CY	-700 CY
Total	1,930 CY	0 CY	135 CY	2,065 CY
Disposal of Acid Producing Soil (700 * 1.755 TON/CY)	1,229 TON	0 TON	0 TON	1,229 TON
Total Excavated Materials available for I-14 Embankment (Total of 1+2+3)	16,271 CY	3,268 CY	4,211 CY	23,750 CY
(13678 + 10,646 + 2,065)* 0.90 shrinkage)				
(B) I-14 Embankment Quantity Required				
Embankment from Cross Sections	7,236 CY	500 CY	250 CY	7,986 CY
Embankment from Plan Sheets	2,360 CY	480 CY	0 CY	2,840 CY
Less I-13 Soil Aggregate	-300 CY	0 CY	0 CY	-300 CY
I-11 Soil Aggregate	-350 CY	0 CY	100 CY	-250 CY
I-10 Soil Aggregate	-185 CY	40 CY	0 CY	-145 CY
I-9 Soil Aggregate	-85 CY	0 CY	0 CY	-85 CY
I-7 Soil Aggregate	-100 CY	0 CY	0 CY	-100 CY
Stripping in Fill	100 CY	25 CY	50 CY	175 CY
Total	8,676 CY	1,045 CY	400 CY	10,121 CY
Excavated Materials Excess (Suitable for I-14 Embankment)	7,595 CY	2,223 CY	3,811 CY	13,629 CY
Excavated Materials to be Borrowed (Suitable for I-14 Embankment)	0 CY	0 CY	0 CY	0 CY
II Topsoiling				
(A) Topsoil Available				
Stripping in Cut	150 CY	50 CY	0 CY	200 CY
Stripping in Fill	75 CY	0 CY	100 CY	175 CY
Total Stripping available for Topsoil	225 CY	50 CY	100 CY	375 CY
(B) Topsoil Required				
Topsoiling, 4" Thick from Cross Sections	1,450 SY	800 SY	500 SY	2,750 SY
Topsoiling, 4" Thick from Plan Sheets	1,000 SY	0 SY	450 SY	1,450 SY
Total Topsoiling 4" Thick required in SY	2,450 SY	800 SY	950 SY	4,200 SY
Total Topsoiling 4" Thick required in CY (4,200 SY x 4" thick)	272 CY	89 CY	105 CY	466 CY
Excess Topsoil	0 CY	0 CY	0 CY	0 CY
Borrow Topsoil	47 CY	39 CY	5 CY	91 CY

X-6
X-6

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

ROUTE 287

CONTRACT NO. 010010001

Individual, Firm, Partnership, etc.

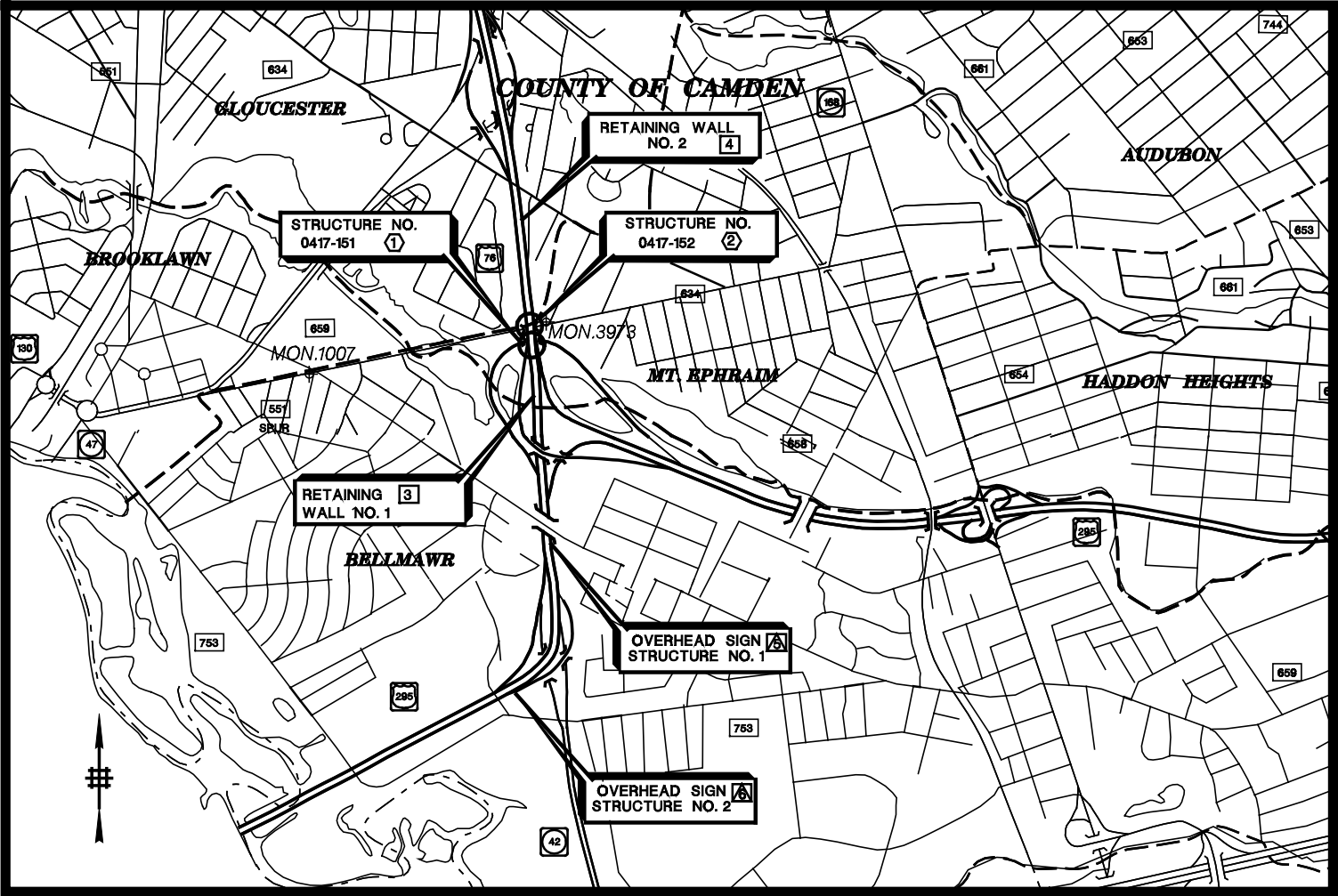
(signature) (date)

John L. Doe

N.J.P.E. LIC. NO. 99999

49

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
PROJECT:			
RTE. I-76, OVER RTE. 295 RAMP "C"			
RTE. I-76, OVER KINGS HIGHWAY			



STRUCTURES IN THIS CONTRACT		
NO.	STRUCTURE NO.	DESCRIPTION
BRIDGES		
①	0417-151	ROUTE I-76 OVER ROUTE 295 RAMP "C"
②	0417-152	ROUTE I-76 OVER KINGS HIGHWAY
RETAINING WALLS		
③		RETAINING WALL LOCATION NO. 1
④		RETAINING WALL LOCATION NO. 2
SIGN SUPPORT STRUCTURES		
A	0417-998	OVERHEAD SIGN STRUCTURE NO. 1
A	0417-999	CANTILEVER SIGN STRUCTURE NO. 1

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

KEY PLAN TO STRUCTURES

ROUTE : CONTRACT NO. :

MUNICIPALITY COUNTY

SCALE : AS SHOWN 50

BRIDGE SHEET NO. B1 OF B21

CONTROL SECTION	JOB NO.
DES. BY	CHK BY
DWN. BY	CHK BY
EST. BY	CHK BY
PECS. BY	
IN CHARGE OF	

REVISION	BY	CHK'D	DATE

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			



-
- 33'-9 $\frac{1}{8}$ " Barrier Parapet on Wingwall
- 1" Joint
- 60'-8 $\frac{7}{8}$ " Barrier Parapet on Span
- 2'-10" High Barrier Parapet, For details, See sheet No. B17.
- 1" Joint
- 28'-4 $\frac{1}{4}$ " Barrier Parapet on Wingwall
- Prop. Guide-Rail (Typ.) (Roadway Item)
- Exp. Brg.
- Fixed Brg.
- Proposed Min. Vertical Underclearance 14'-9"
- Centerline of North Branch Road
- SOUTH ELEVATION**
- Scale: $\frac{1}{8}" = 1'-0"$
- | SHEET NO. | |
|-----------|---|
| B1 | K |
| B2 | E |
| B3 | G |
| B4 | C |
| B5 | S |
| B6 | D |
| B7 | D |
| B8 | V |
| B9 | |

INDEX OF DRAWINGS	
SHEET NO.	DESCRIPTION
B1	KEY PLAN TO STRUCTURES
B2	ESTIMATE OF QUANTITIES
B3	GENERAL PLAN AND ELEVATION
B4	CROSS SECTION & PROFILE
B5	STAGING DETAILS
B6	DEMOLITION PLAN NO. 1
B7	DEMOLITION PLAN NO. 2
B8	WEST ABUTMENT
B9	NORTHWEST & SOUTHWEST RETAINING WALLS
B10	PIER 1 PLAN AND ELEVATION
B11	PIER SECTIONS & DETAILS
B12	FRAMING PLAN
B13	STEEL DETAILS
B14	BOX BEAM DETAILS
B15	78" PRETENSIONED PRESTRESSED CONCRETE BEAM
B16	PRESTRESSED CONCRETE BEAM DETAIL
B17	DECK SLAB PLAN
B18	RETAINING WALL, GENERAL PLAN & ELEVATION
B19	RETAINING WALL, SECTION AND DETAILS
B20	OVERHEAD SIGN SUPPORT STRUCTURE - GENERAL PLAN & ELEVATION
B21	CANTILEVER SIGN SUPPORT STRUCTURE - GENERAL PLAN & ELEVATION

CONTROL SECTION		_____		JOB NO. _____	
DES. BY		CHK. BY			
DWN. BY		CHK. BY			
EST. BY		CHK. BY			
RECS. BY					
IN CHARGE OF					

GENERAL PLAN AND ELEVATION

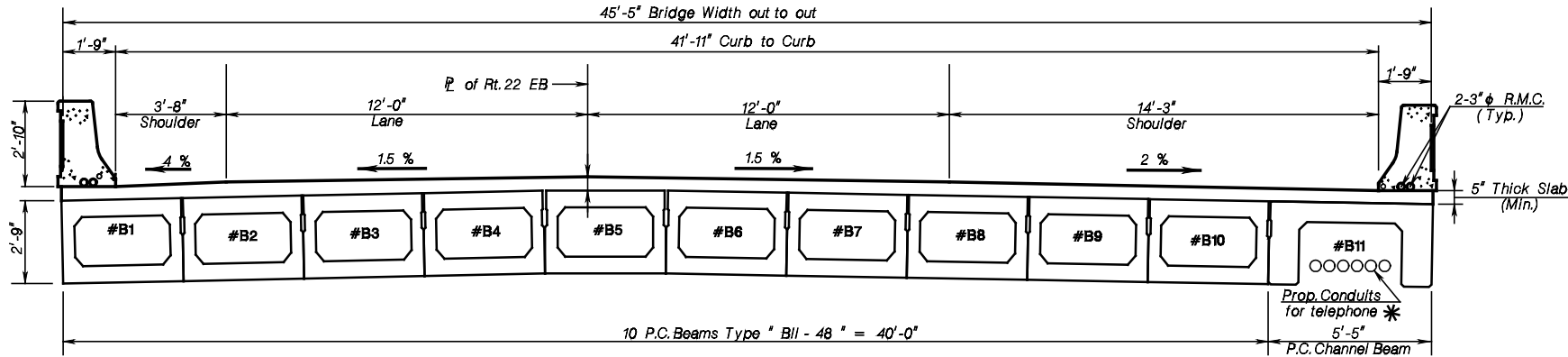
MUNICIPALITY _____ COUNTY _____

SCALE : AS SHOWN

BRIDGE
SHEET NO. B3 OF B21

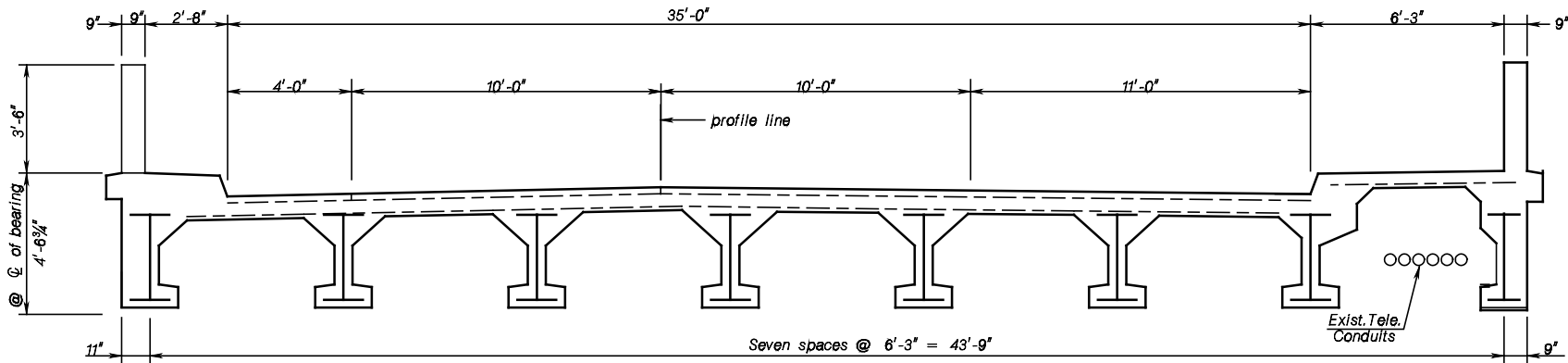
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STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			

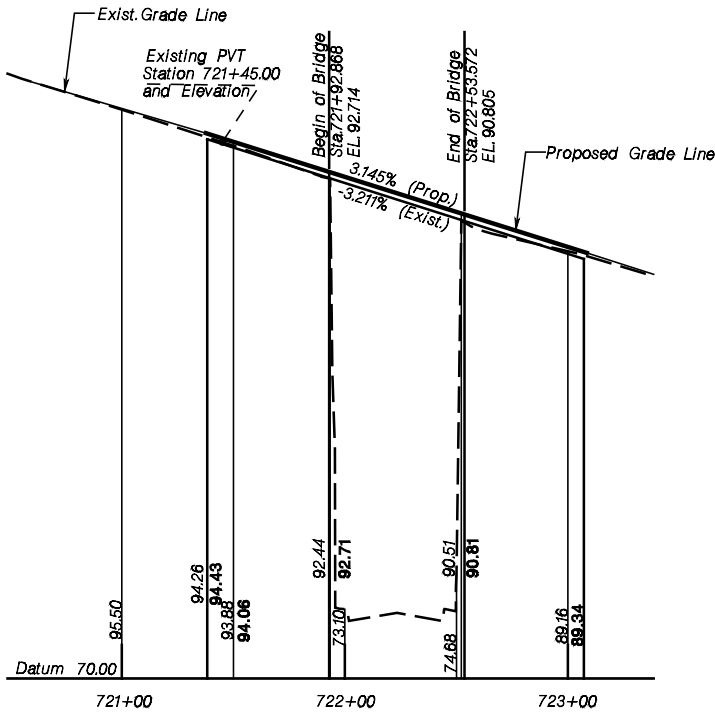


TYPICAL PROPOSED SECTION
Scale: $\frac{3}{8}" = 1'-0"$

* See note 16 on plan sheet B
entitled "P.C. Channel Beam Details No. 2"

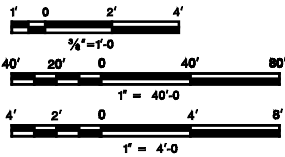


TYPICAL EXISTING SECTION
Scale: $\frac{3}{8}" = 1'-0"$



ROUTE 22 EASTBOUND PROFILE

Scale: HOR. 1" = 40'-0"
VERT. 1" = 4'-0"



NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

CROSS SECTION AND PROFILE

ROUTE : CONTRACT NO. :

MUNICIPALITY COUNTY

SCALE : AS SHOWN

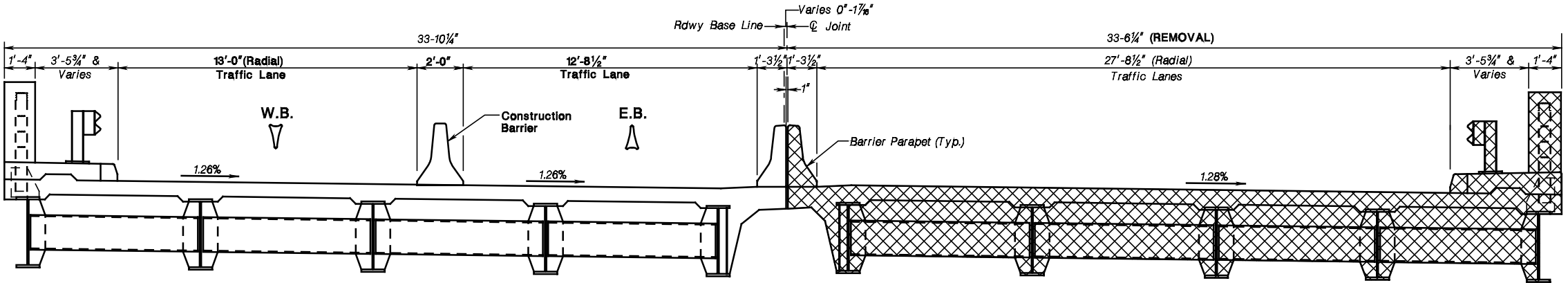
BRIDGE SHEET NO. B4 OF B21

53

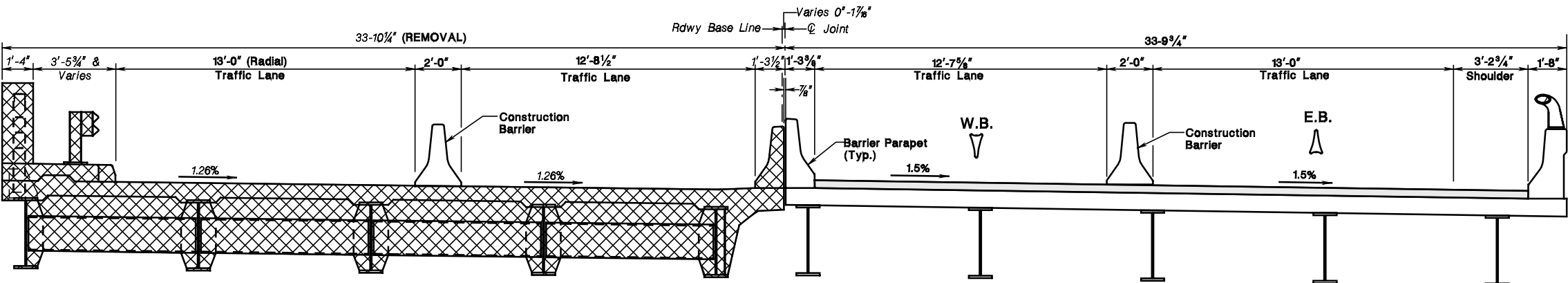
REVISION	BY	CHK'D	DATE

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	CHK. BY
EST. BY	CHK. BY
RECS. BY	CHK. BY
IN CHARGE OF	

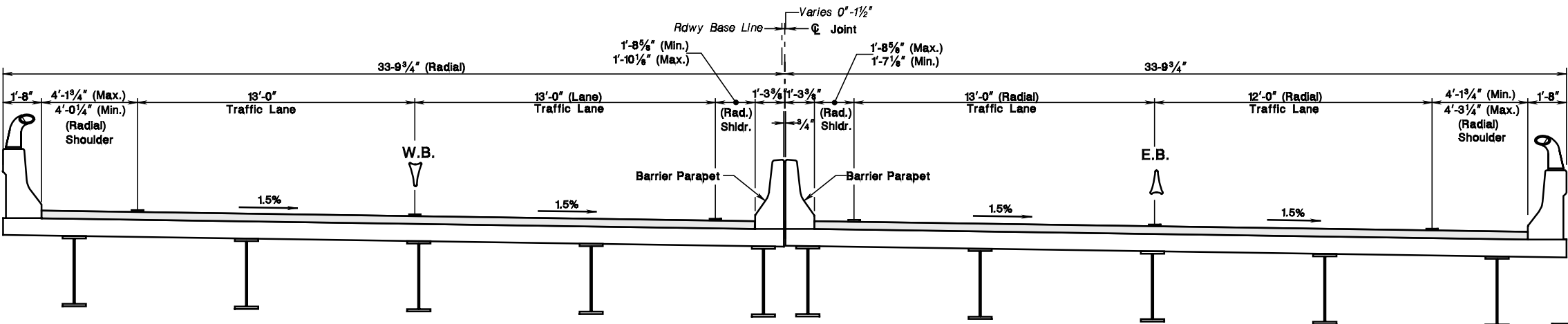
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			



STAGE I
Scale: 3/8"=1'-0"



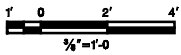
STAGE II
Scale: 3/8"=1'-0"



FINAL STAGE
Scale: 3/8"=1'-0"

LEGEND:
 AREA OF REMOVAL

NOTES:
1. See traffic control plans for locations of traffic control devices and allowable lane closure hours.

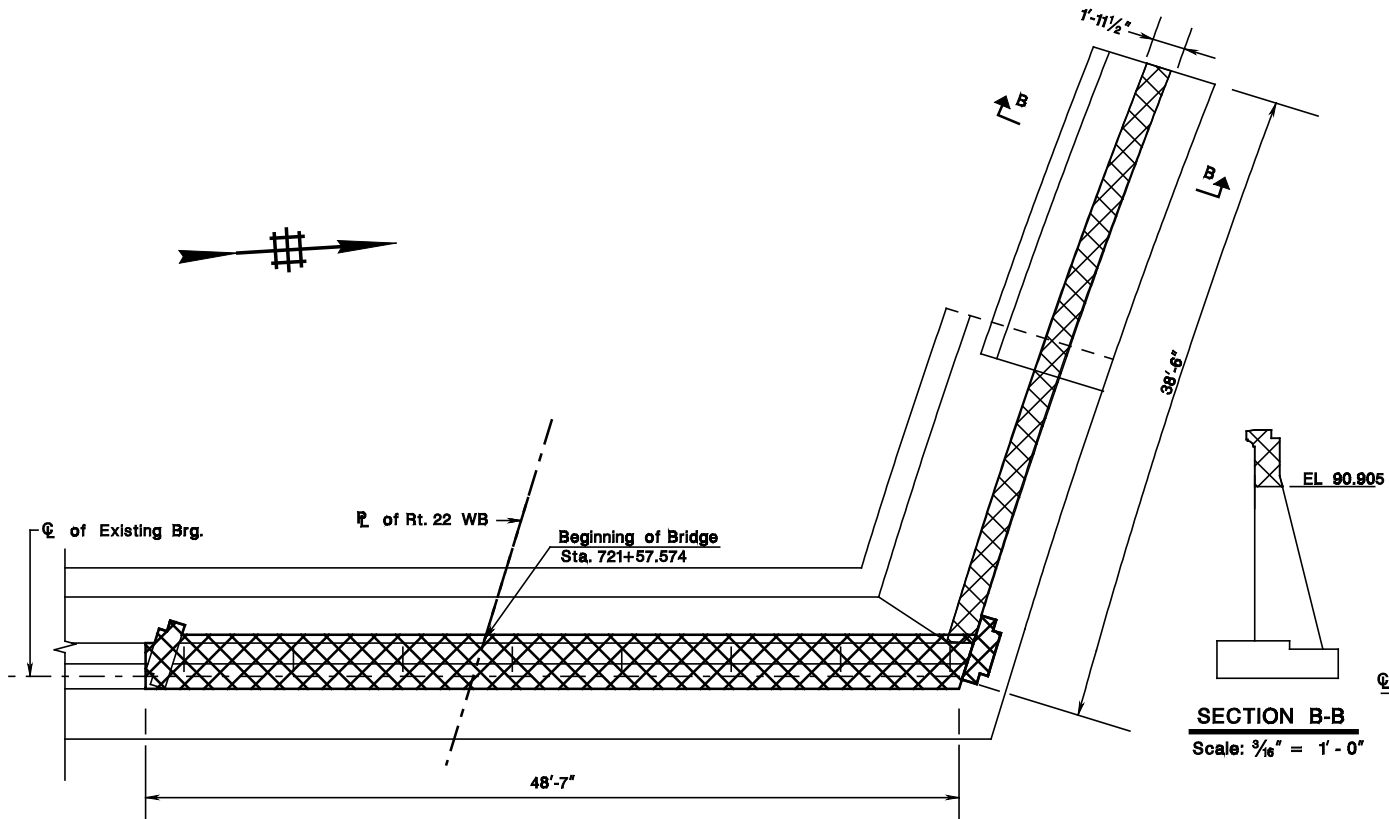


REVISION	BY	CHK'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
STAGING DETAILS	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B5 OF B21	

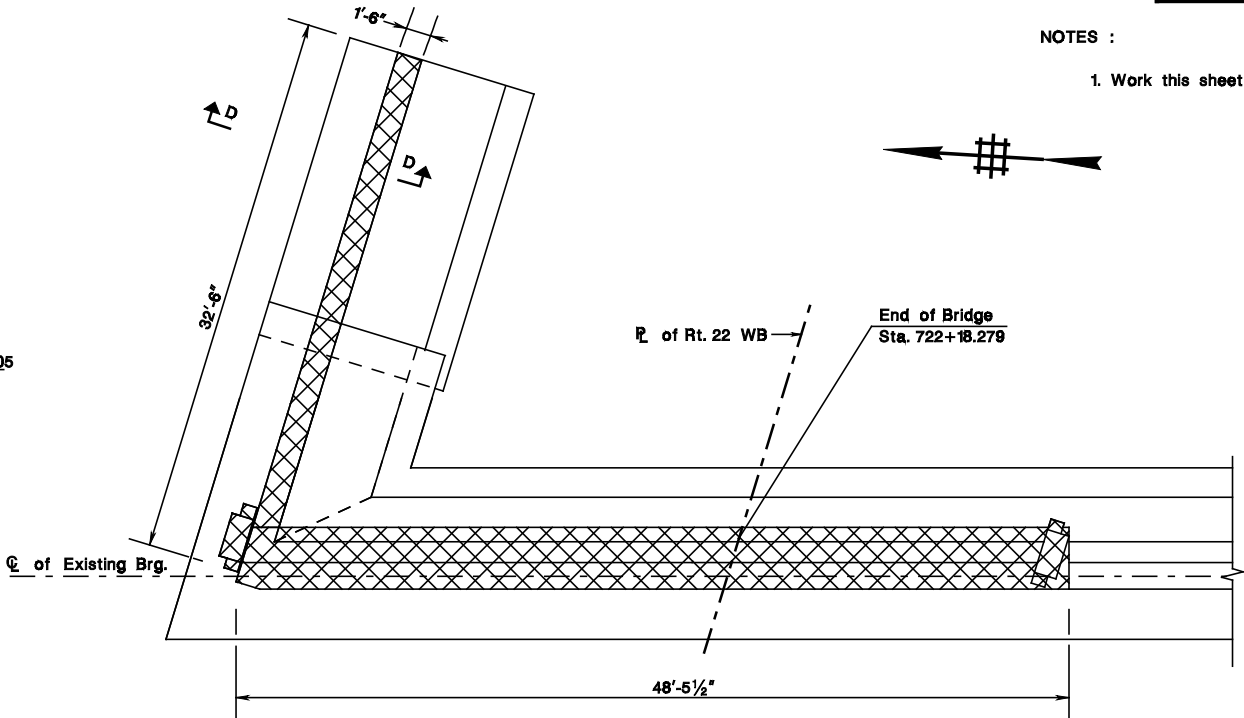
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			

- NOTES :
1. Work this sheet with Sheet No. B__.

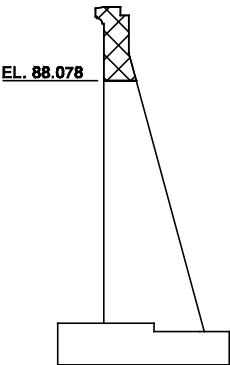


PLAN - WEST ABUTMENT
Scale: 3/16" = 1' - 0"

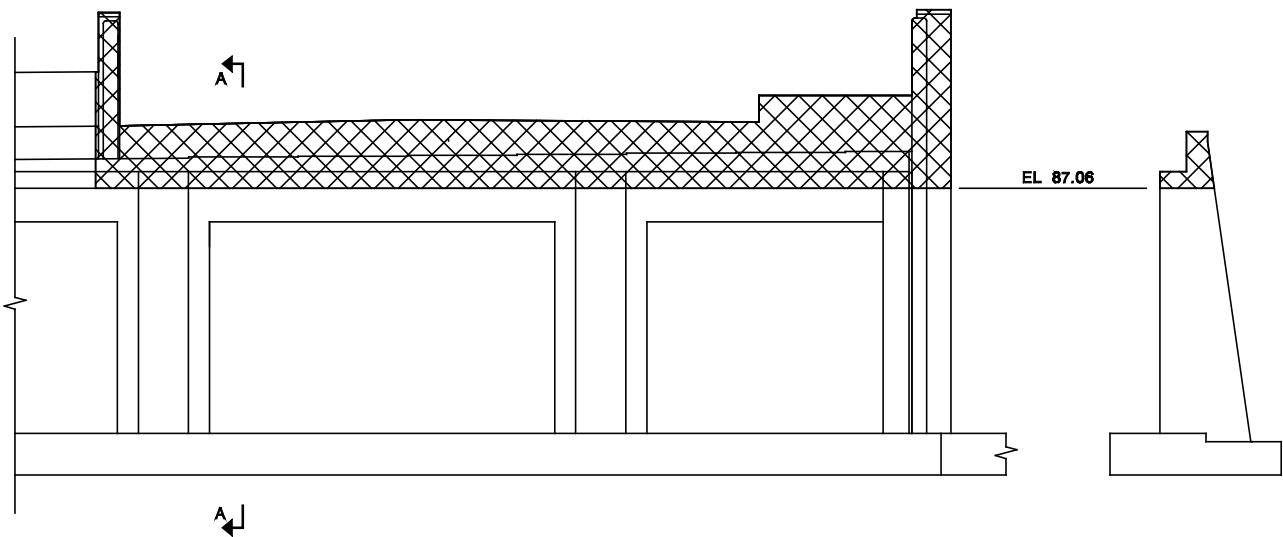
SECTION B-B
Scale: 3/16" = 1' - 0"



PLAN - EAST ABUTMENT
Scale: 3/16" = 1' - 0"

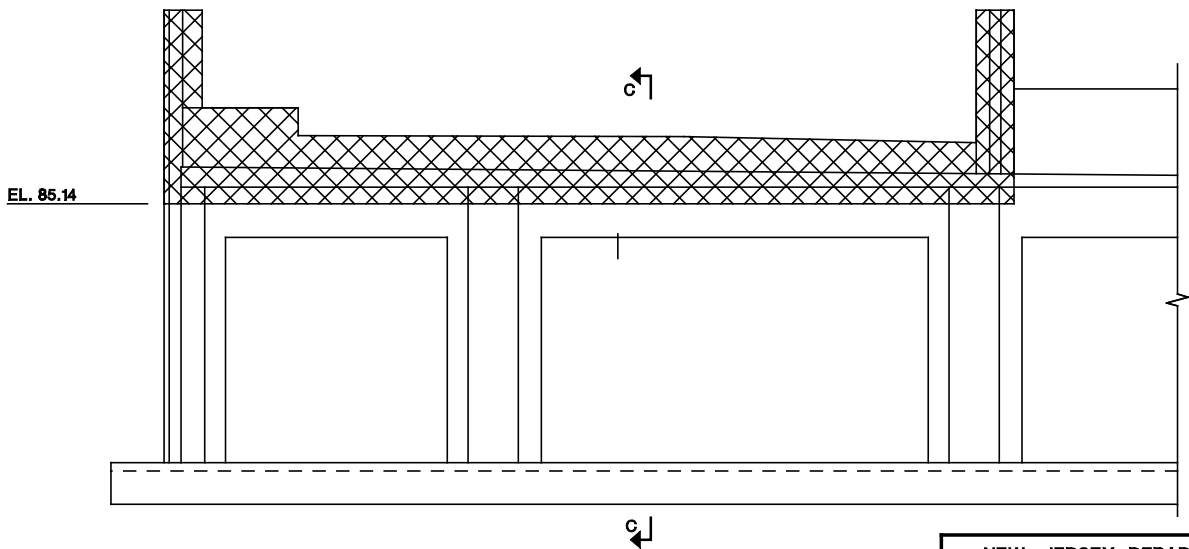


SECTION D-D
Scale: 3/16" = 1' - 0"

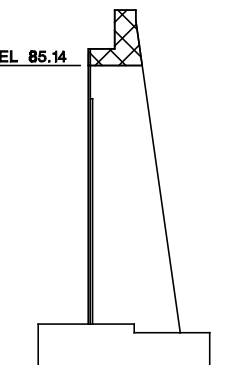


ELEVATION - WEST ABUTMENT
(LOOKING WEST)
Scale: 3/16" = 1' - 0"

SECTION A-A
Scale: 3/16" = 1' - 0"



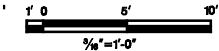
ELEVATION - EAST ABUTMENT
(LOOKING EAST)



SECTION C-C
Scale: 3/16" = 1' - 0"

LEGEND

LIMITS OF DEMOLITION TO BE INCLUDED UNDER PAY ITEM "CLEARING SITE, BRIDGE (_____)"



REVISION	BY	CHK'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

DEMOLITION PLAN NO. 2

ROUTE : CONTRACT NO. :

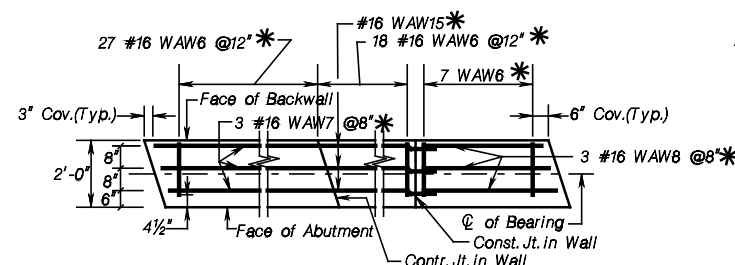
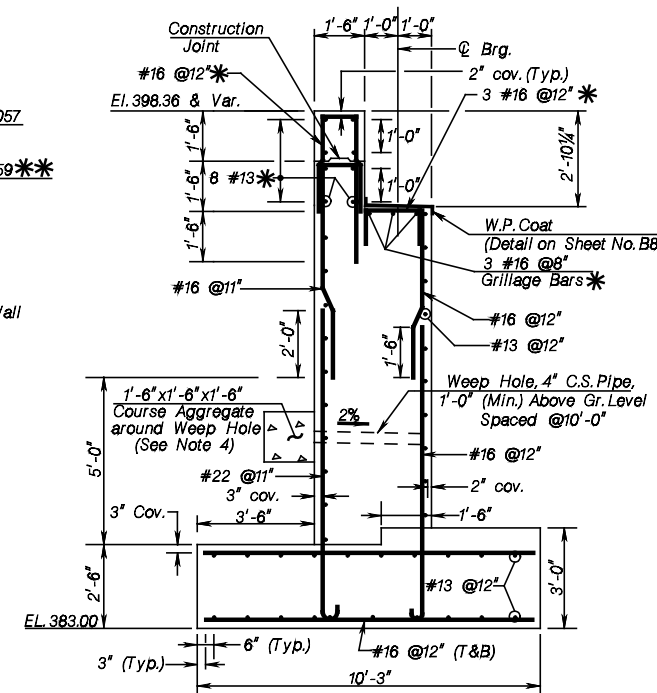
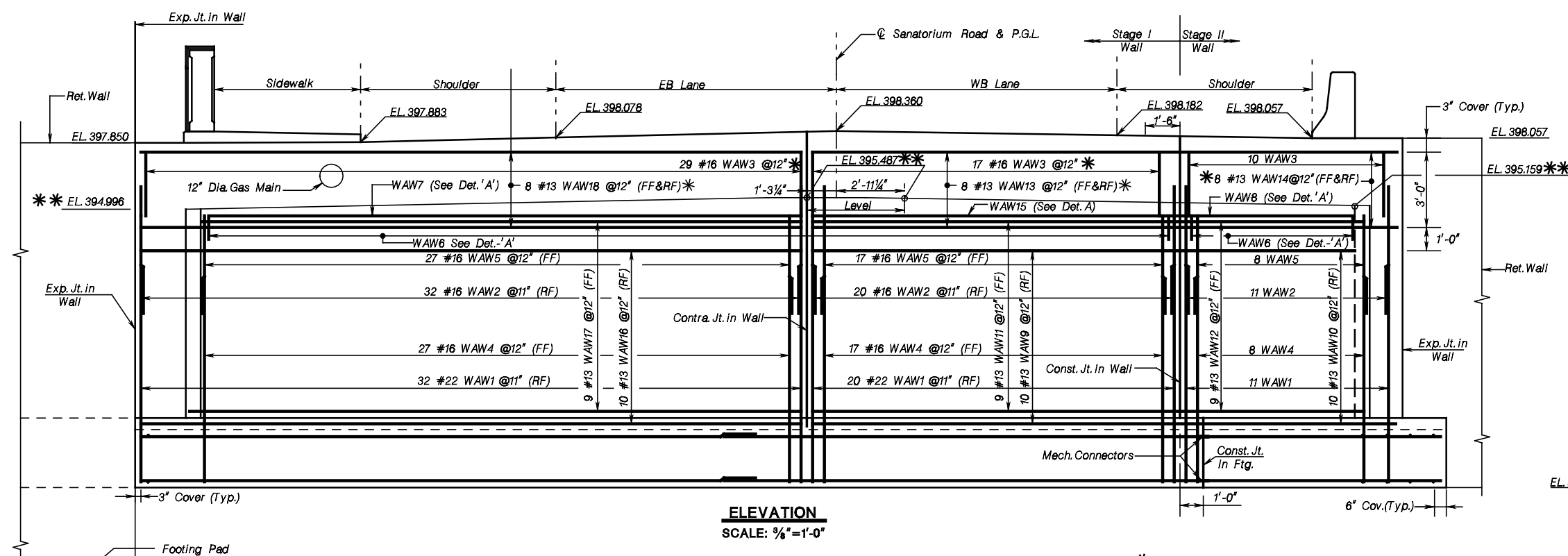
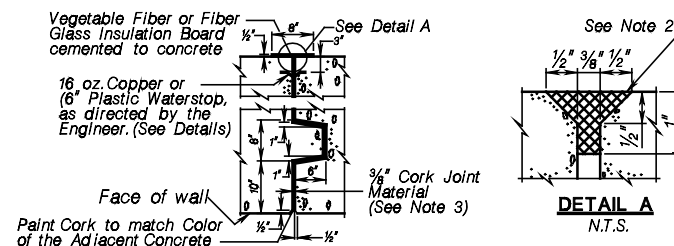
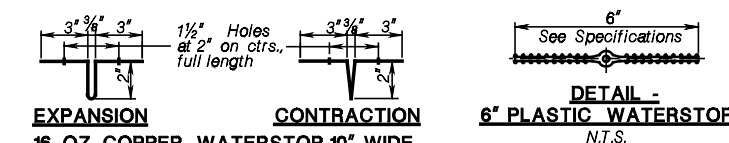
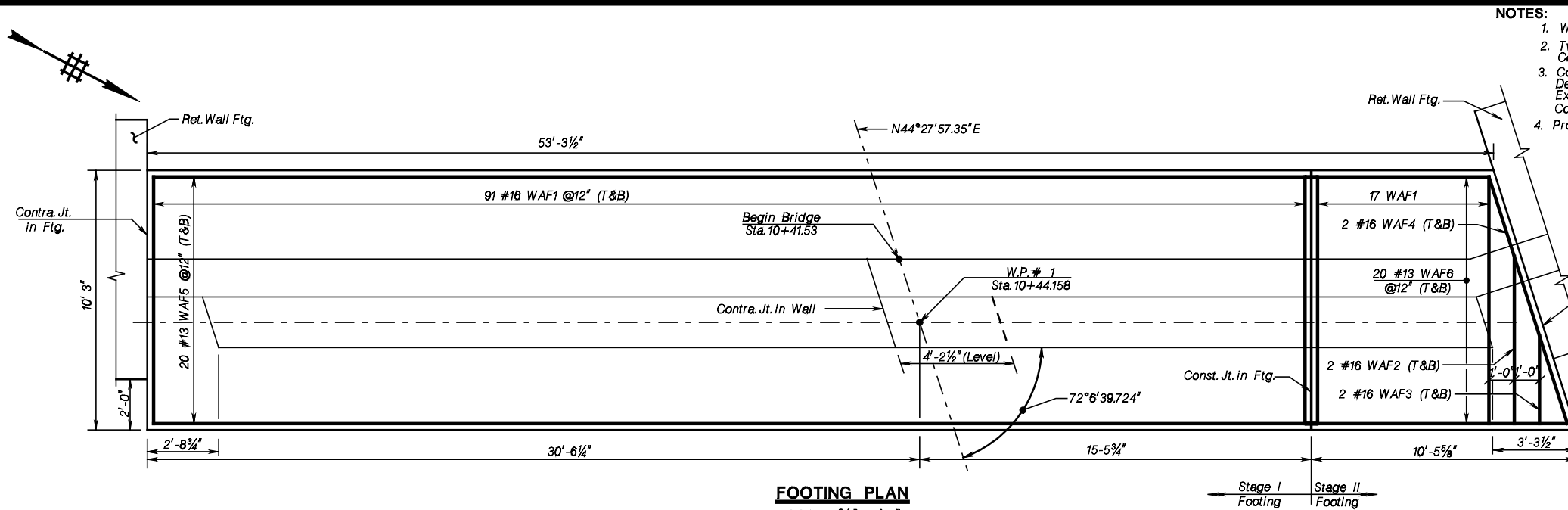
MUNICIPALITY COUNTY

SCALE : AS SHOWN

BRIDGE SHEET NO. B7 OF B21

56

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	CHK. BY
EST. BY	CHK. BY
RECS. BY	CHK. BY
IN CHARGE OF	



QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
504015P	CONCRETE FOOTING	CY	60
504024P	CONCRETE ABUTMENT WALL	CY	100
504003P	REINFORCEMENT STEEL	LBS	5,350
504006P	REINFORCEMENT STEEL, EPOXY-COATED	LBS	1,200
504036P	EPOXY WATERPROOFING	SY	20

DISCOUNTS & ORIGINAL SHEET	CONTROL SECTION		JOB NO. _____	
	DES. BY		CHK. BY	
	DWN. BY		CHK. BY	
	EST. BY		CHK. BY	
	PRECS. BY			
IN CHARGE OF _____				

REVISION	BY	C/K'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

WEST ABUTMENT

ROUTE : CONTRACT NO.:

MUNICIPALITY _____ COUNTY _____

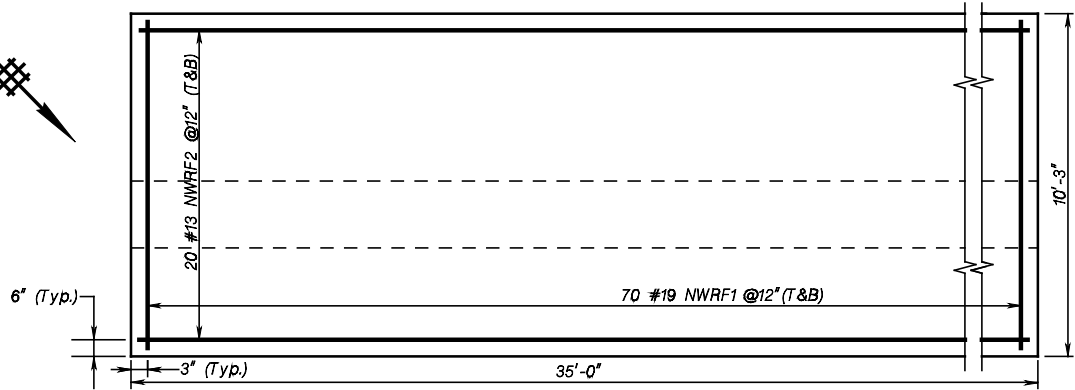
SCALE : AS SHOWN

BRIDGE SHEET NO. B8 OF B21

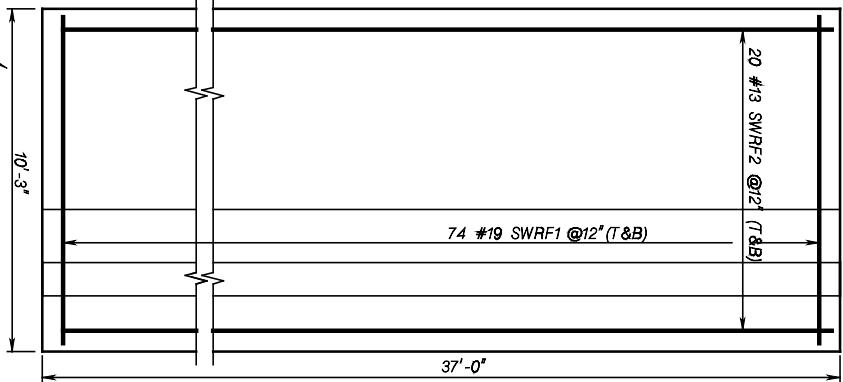
57

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			

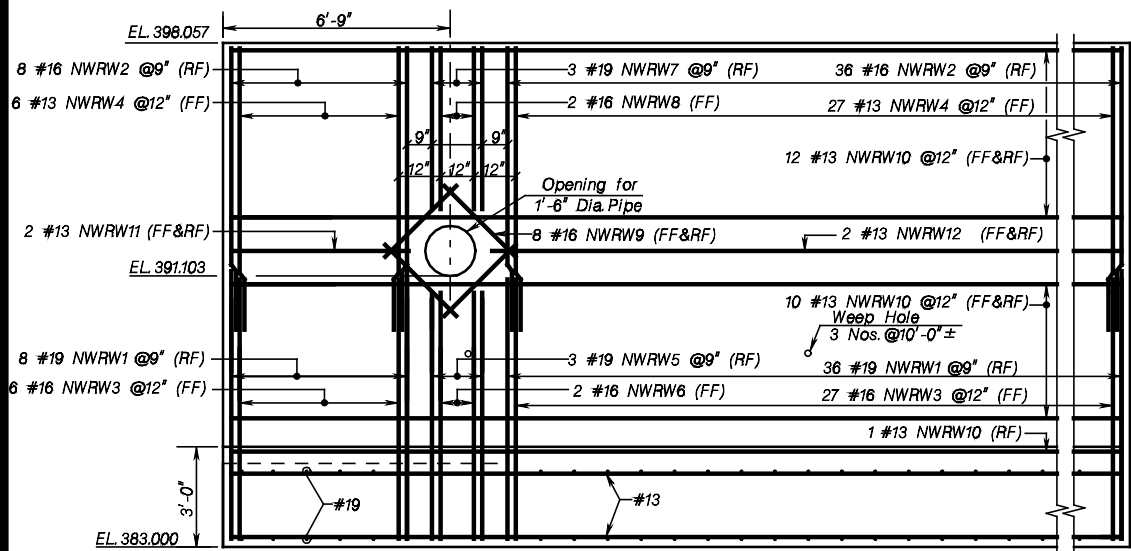
- NOTES:
1. Work this Sheet with Sheet No. B...
 2. Provide Geotextile Filter Fabric around Course Aggregate.
 3. The cost of drilling and grouting the dowels into the bedrock to be included under pay item
 4. Core drill 2" (min.) Dia. holes in bedrock and epoxy grout after installing dowels.



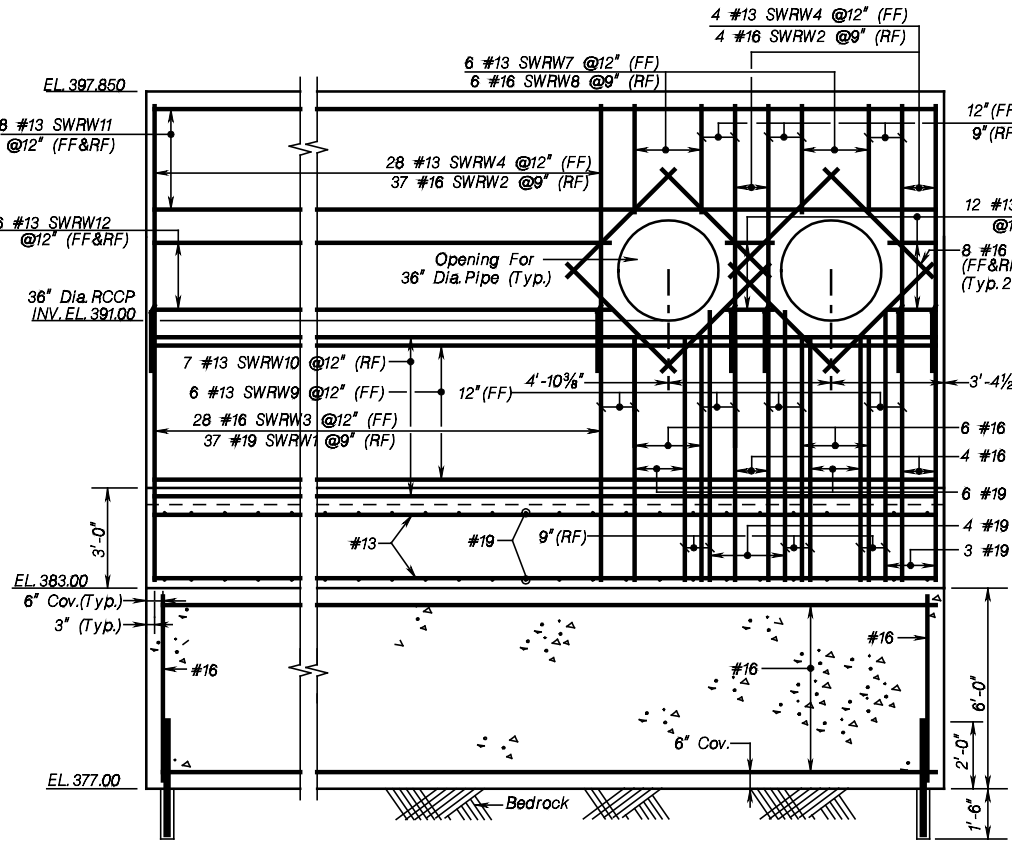
FOOTING PLAN
NORTHWEST RETAINING WALL
SCALE: 3/8"=1'-0"



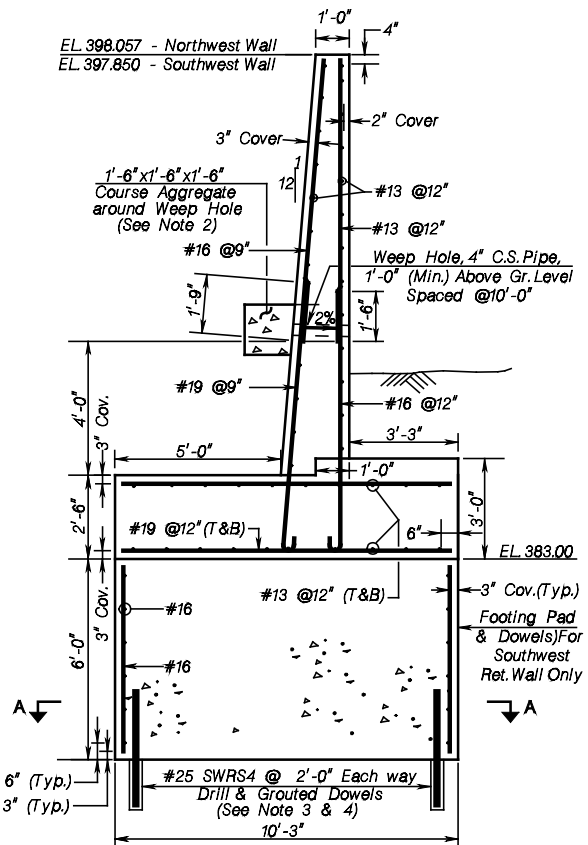
FOOTING PLAN
SOUTHWEST RETAINING WALL
SCALE: 3/8"=1'-0"



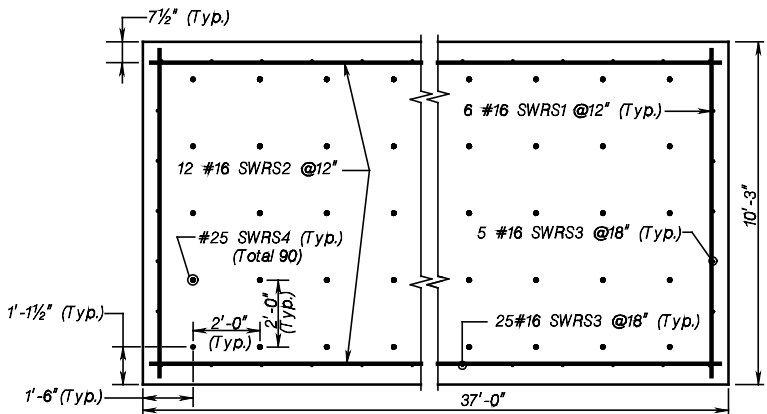
ELEVATION
NORTHWEST RETAINING WALL
SCALE: 3/8"=1'-0"



ELEVATION
SOUTHWEST RETAINING WALL
SCALE: 3/8"=1'-0"

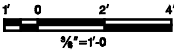


SECTION
NORTHWEST AND SOUTHWEST
RETAINING WALLS
SCALE: 3/8"=1'-0"



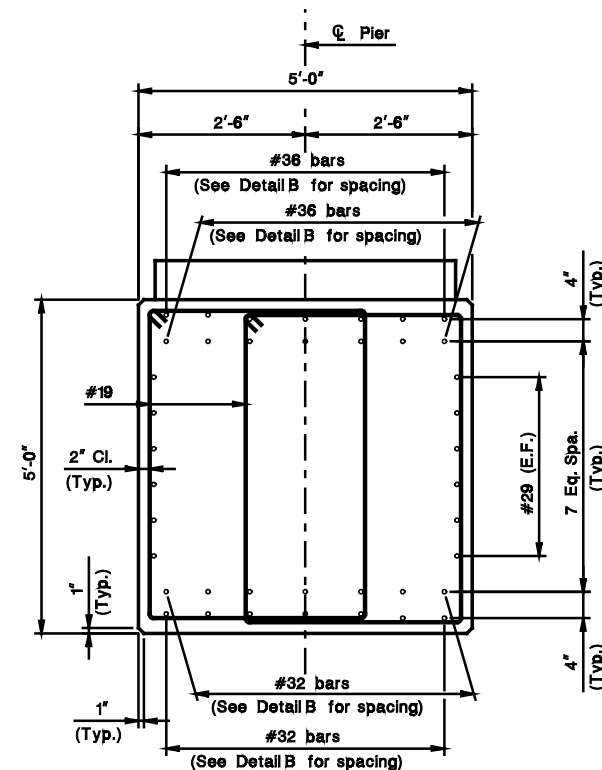
FOOTING PAD PLAN (SECT. A-A)
SOUTHWEST RETAINING WALL
SCALE: 3/8"=1'-0"

QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
504015P	CONCRETE FOOTING	GY	80
504018P	CONCRETE WING WALL	GY	50
504003P	REINFORCEMENT STEEL	LBS	9,050

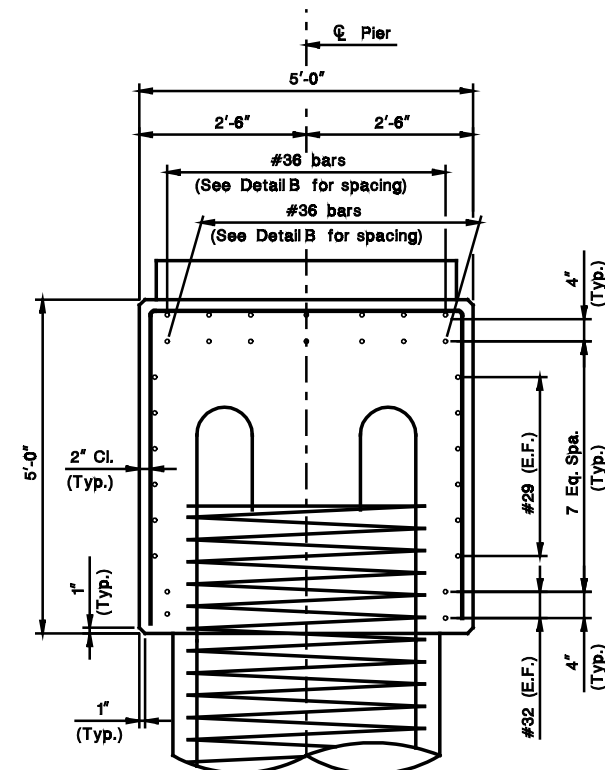


REVISION	BY	CHK'D	DATE

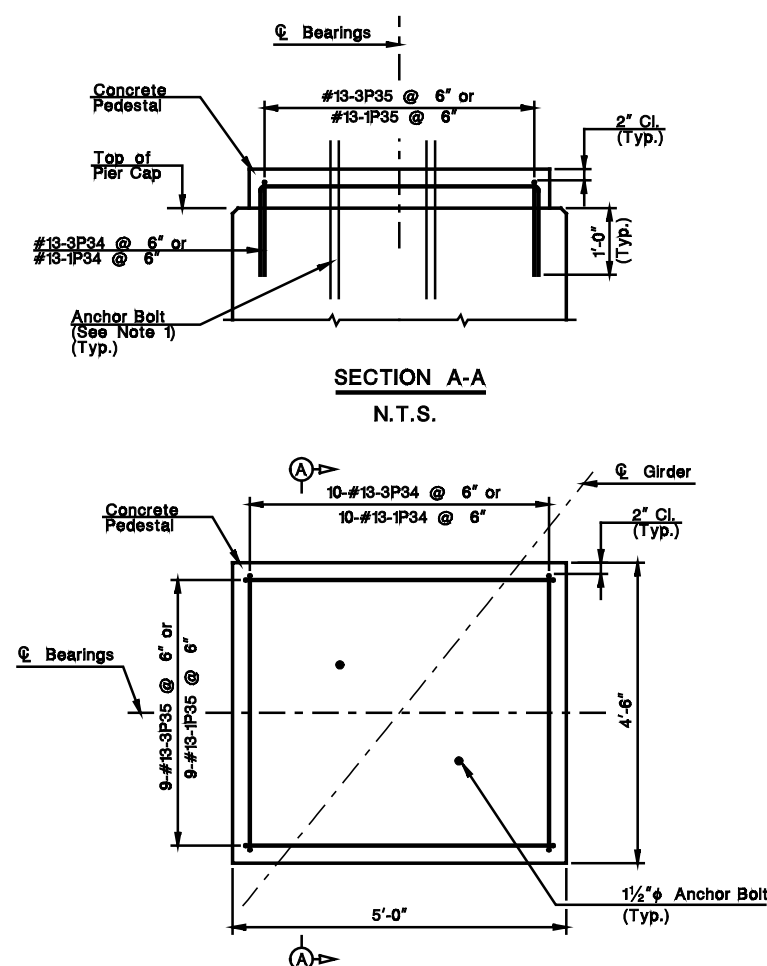
NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
NORTHWEST & SOUTHWEST RETAINING WALLS	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B9 OF B21	



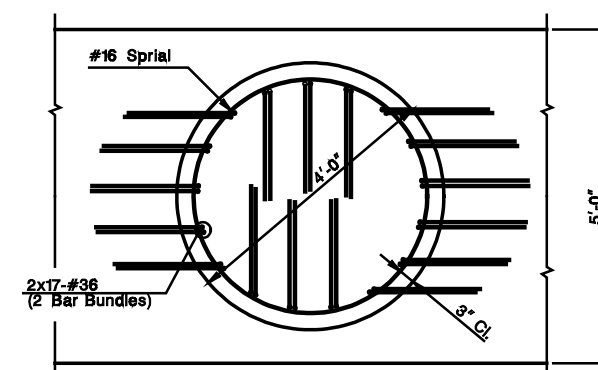
PIER CAP CROSS SECTION
Scale: $\frac{3}{4}" = 1'-0"$



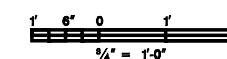
**PIER CAP CROSS SECTION
AT COLUMN**
Scale: $\frac{3}{4}" = 1'-0"$



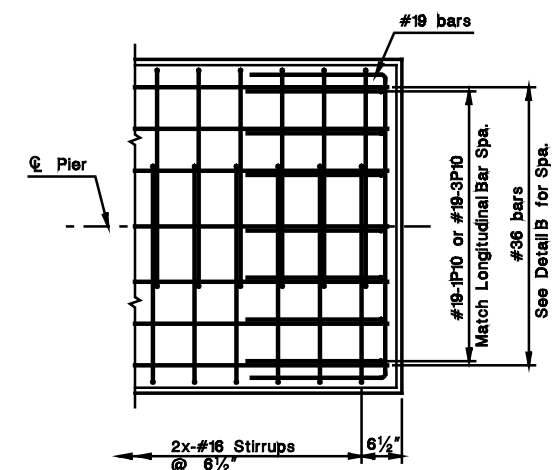
**TYPICAL GRILLAGE
REINFORCEMENT PLAN
N.T.S.**



PIER COLUMN TO CAP CONNECTION
PLAN VIEW
N.T.S.



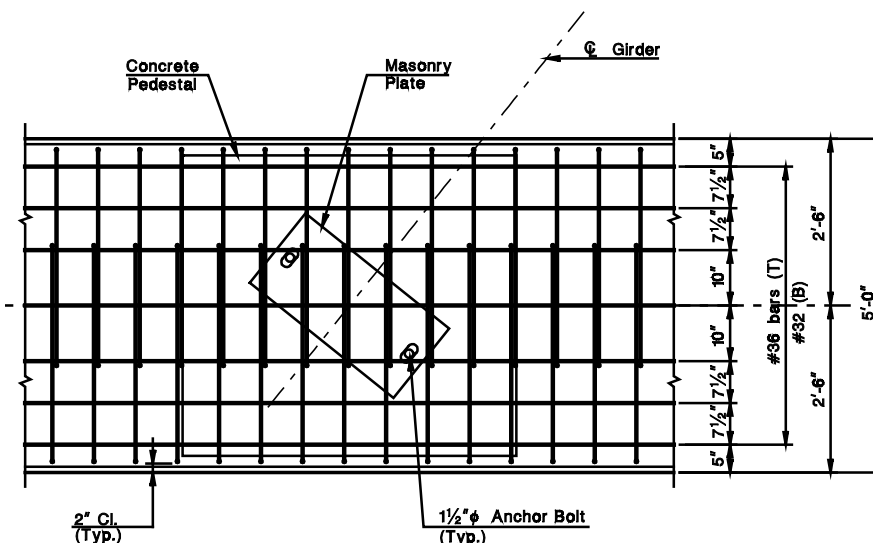
REVISION	BY	C/K'D	DATE



**TYPICAL PIER CAP END
REINFORCEMENT LAYOUT**
Scale: $\frac{3}{4}" = 1'-0"$

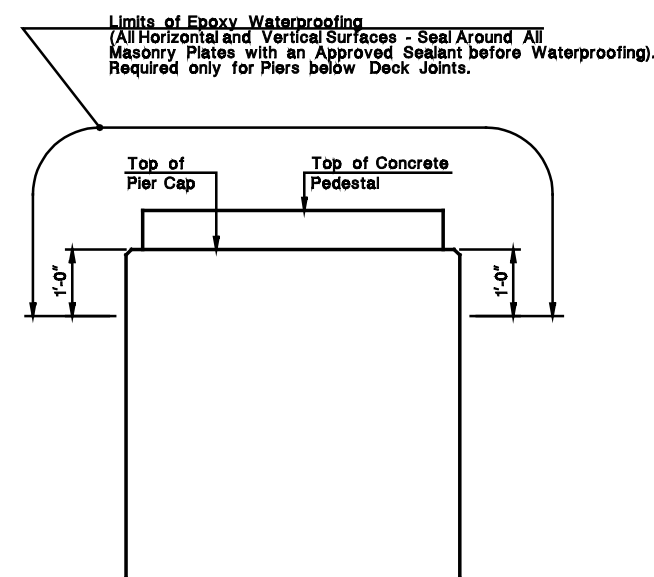
NOTES:

1. Anchor bolts shall be set in place prior to pouring cast-in-place concrete pier cap. Adjust placement of pedestal reinforcement to avoid anchor bolts
2. For bearing details, see Dwgs. No. B_.
3. For drilled shaft and rock socket details and pay item limits, see Dwg. No. B_.
4. Pier shaft vertical reinforcement is continuous with reinforcement in drilled shaft. Reinforcement in drilled shaft shall be paid for under corresponding drilled shaft item, as shown on Dwg. No. B_.
5. Rebar splices are not permitted in the pier shafts above ground level and shall only be made within the drilled shaft, as specified on Dwg. No. B_.
6. Mechanical couplers may be used in lieu of lap splices in the pier caps, at no additional cost to the state. Couplers shall be staggered at 24 inches minimum and shall develop at least 125% of specified yield strength of the bar.
7. All concrete in pier caps, columns, and pedestals shall be Class A, with a design compressive strength of 4000 psi.



DETAIL B

Scale: $\frac{3}{4}" = 1'-0"$



**TYPICAL SECTION
THROUGH PIER CAP
N.T.S.**

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 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	CONTROL SECTION		JOB NO. _____	
	DES. BY		CHK. BY	
	DWN. BY			
	EST. BY		CHK. BY	
	SPECS. BY			
	IN CHARGE OF _____			

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

PIER SECTIONS & DETAILS

ROUTE : CONTRACT NO. :

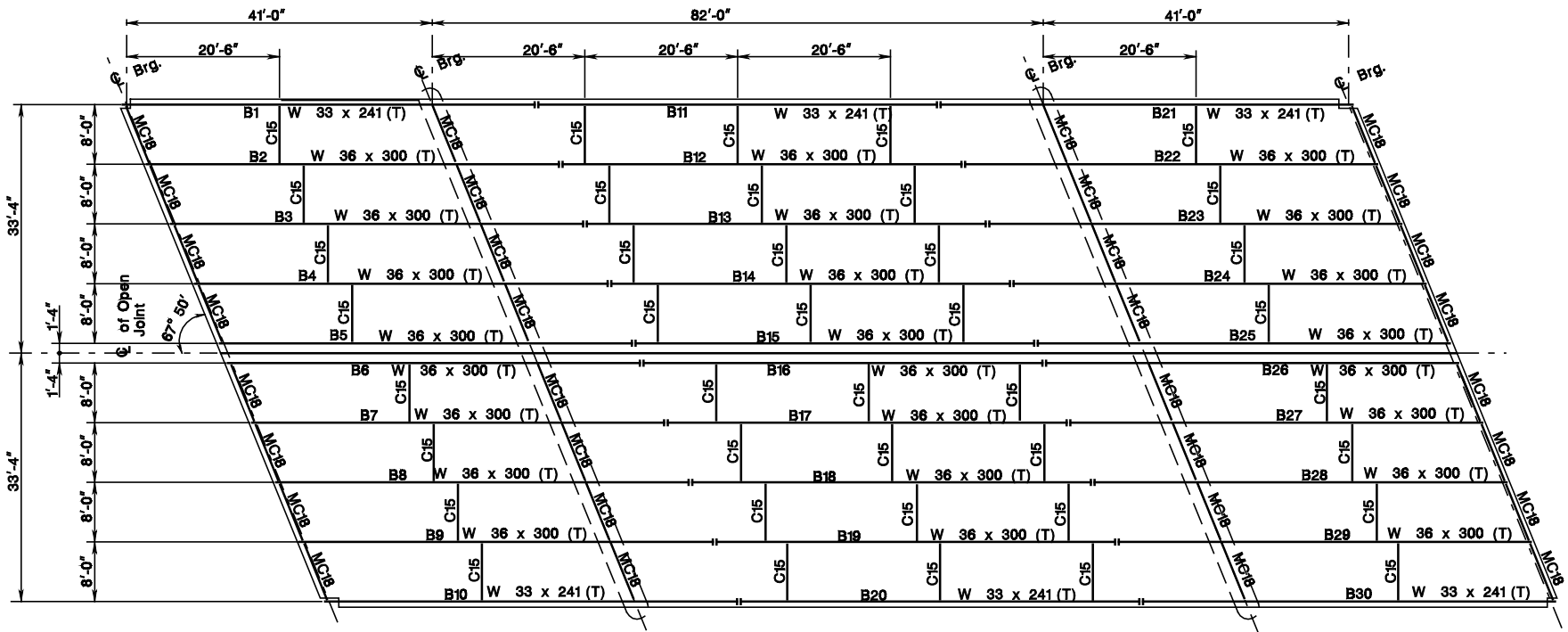
MUNICIPALITY _____ COUNTY _____

SCALE : AS SHOWN

BRIDGE
SHEET NO B11 OF B21

60

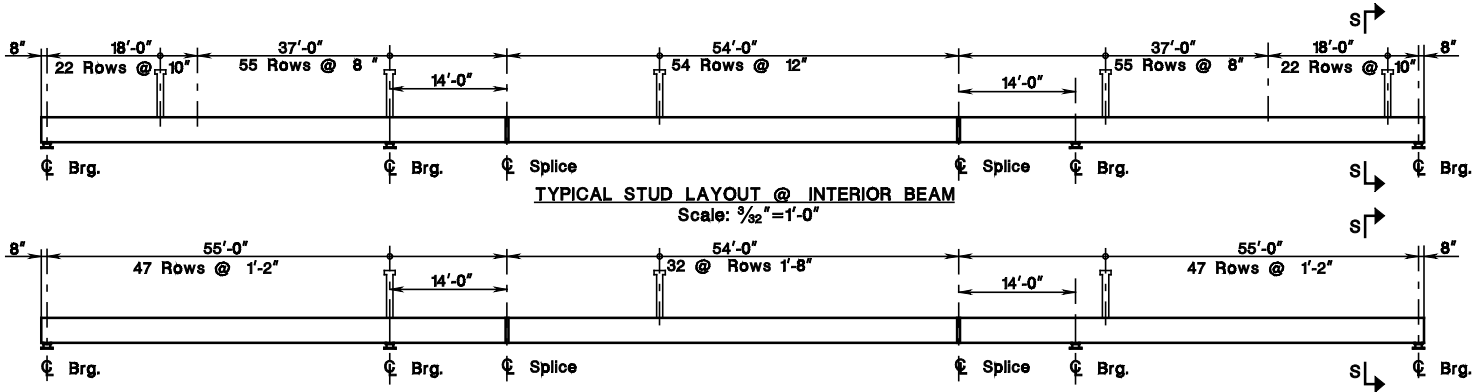
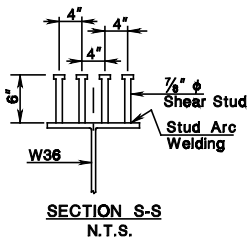
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			



NOTE:
C15 Indicates Diaphragm C15 x 33.9
MC18 Indicates End Diaphragm C18 x 42.7

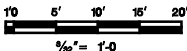
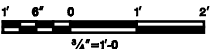
FRAMING PLAN
Scale: 3/32"=1'-0"

TOP ELEVATION AT CENTER LINE OF BEAM					
Beam No.	Elevation At West Abutment	Elevation At West Pier	Beam No.	Elevation At East Pier	Elevation At East Abutment
B1	174.91	175.16	B21	175.12	174.77
B2	175.14	175.38	B22	175.30	174.94
B3	175.16	175.38	B23	175.28	174.90
B4	175.52	175.68	B24	175.55	175.20
B5	175.54	175.69	B25	175.53	175.16
B6	175.55	175.69	B26	175.52	175.15
B7	175.57	175.69	B27	175.49	175.10
B8	175.25	175.40	B28	175.17	174.73
B9	175.27	175.41	B29	175.15	174.69
B10	175.08	175.20	B30	174.91	174.44



- NOTE:
- Superstructure Steel: AASHTO M270, Grade 50W with supplementary requirements for Charpy V-Notch Toughness for all member components marked (T).
 - All field connections shall be made with AASHTO M253.
 - All bolted connections shall be Slip-Critical connections in accordance with The current AASHTO LRFD Bridge Design Specifications. Contact surface for bolted parts shall be Class B in accordance with AASHTO LRFD table 6.13.2.8-3.
 - Shear connectors shall be in accordance with AASHTO M169.
 - Shear connectors may be moved to clear field splice plates, provided the total number of shear connectors remain unchanged.
 - Work this drawing with drawing entitled "Steel Details".
 - All Steel Girders shall be painted within 9 ft. of girder ends. This shall include Diaphragms within 9 ft. of girder ends.
The Top Coat Color shall be FED-STD-595B BROWN Color Chip 3011.

QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
506003P	STRUCTURAL STEEL	LS	LS
506012P	SHEAR CONNECTOR	UNIT	7670



REVISION	BY	CHK'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

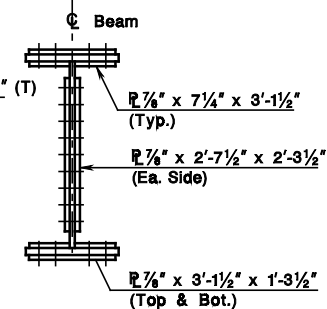
FRAMING PLAN

ROUTE : CONTRACT NO. :

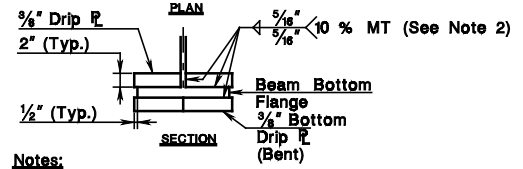
MUNICIPALITY COUNTY

SCALE : AS SHOWN

BRIDGE SHEET NO B12 OF B21

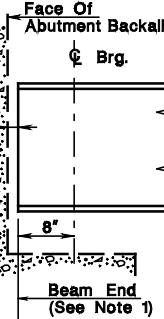


SECTION A-A



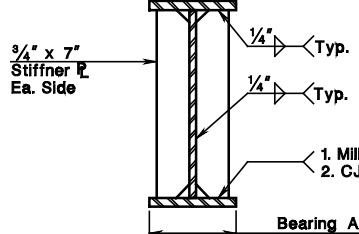
Notes:

1. Drip plates shall be located at a distance that ensures no runoff on substructure.
2. The drip plates shall be clipped to clear the web/flange weld.

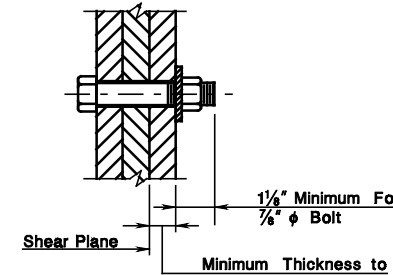


NOTES:

- 1. Beam ends and bearing stiffeners shall be normal to flange.**



Bearing Area



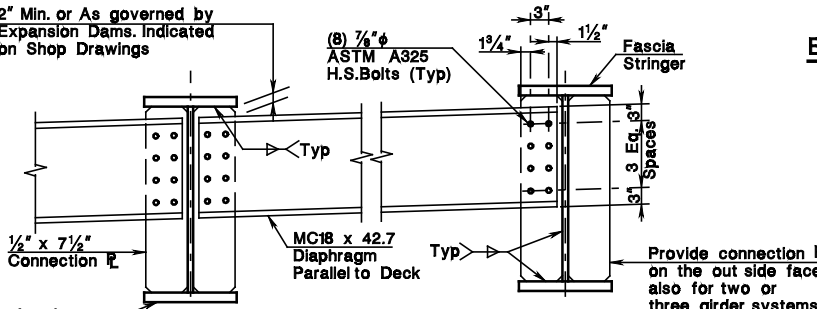
BOTTOM FLANGE

7/8" DIAMETER BOLT ENTERING AND TIGHTENING CLEARANCES

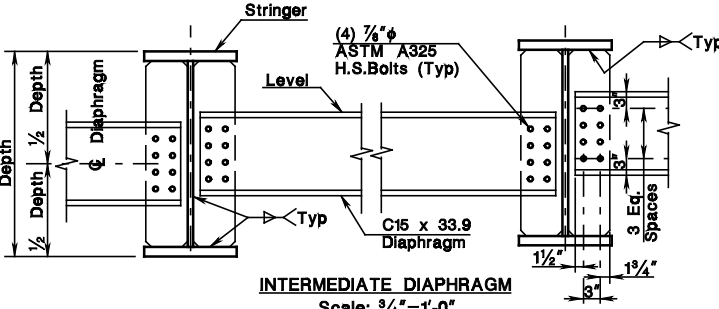
BOLT SHEAR PLANE

Minimum Plate Thickness is $\frac{3}{8}$ ".

NOTE:
Based on 1½" Thread Length For
7/8" φ Bolt



END DIAPHRAGM
Scale: $\frac{3}{4}" = 1'-0"$



INTERMEDIATE DIAPHRAGM
Scale: $\frac{3}{4}" = 1'-0"$

- Notes:**
1. $\frac{1}{8}$ " ϕ holes in connection E, $\frac{1}{8}$ " ϕ holes in connecting member for $\frac{1}{8}$ " ϕ AASHTO M164 bolts. Standard size holes are permitted.
 2. Use $\frac{7}{8}$ " ϕ AASHTO M164 bolts having an unthreaded shank of sufficient length to not allow any threads to exist in the plane between the two connected parts (shear plane).

ADVISORY - ORIGINAL SHEET IN CHARGE OF	CONTRÔL SECTION		_____	JOB NO. _____
	DES. BY		CHK. BY	
	DWN. BY		CHK. BY	
	EST. BY		CHK. BY	
	RECOS. BY			

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

STEEL DETAILS

ROUTE : CONTRACT NO.:

MUNICIPALITY _____ COUNTY _____

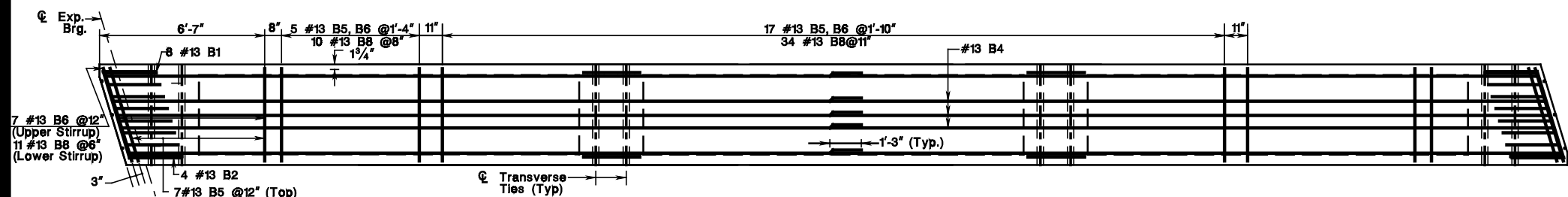
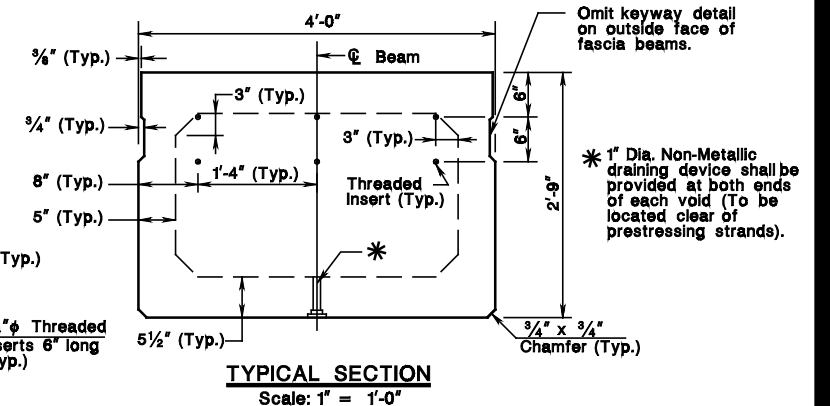
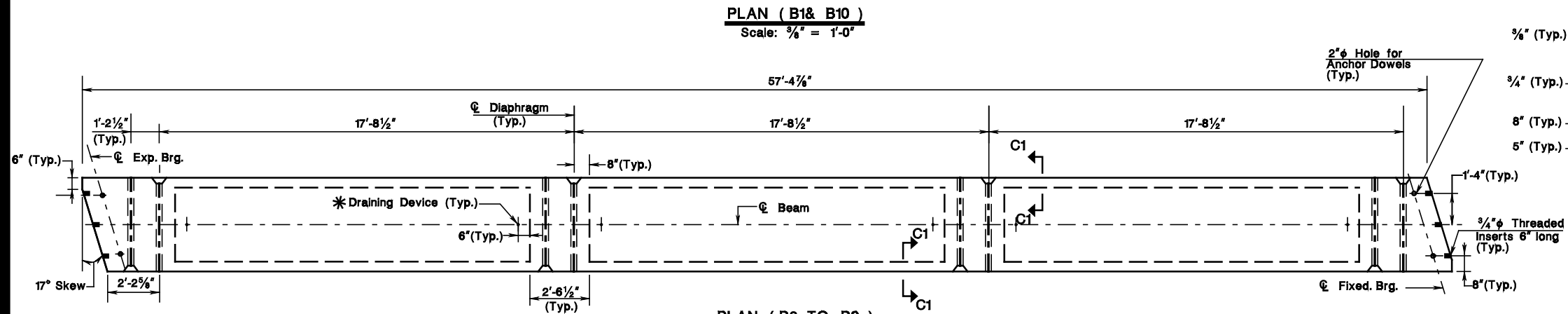
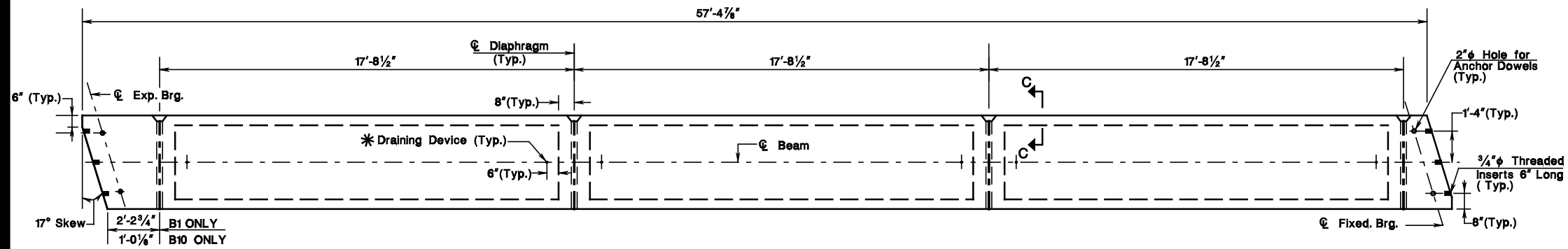
SCALE : AS SHOWN 

BRIDGE
SHEET NO. B13 OF B21

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			

NOTES:

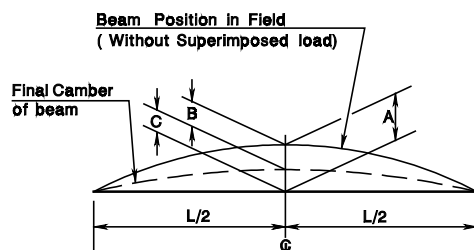
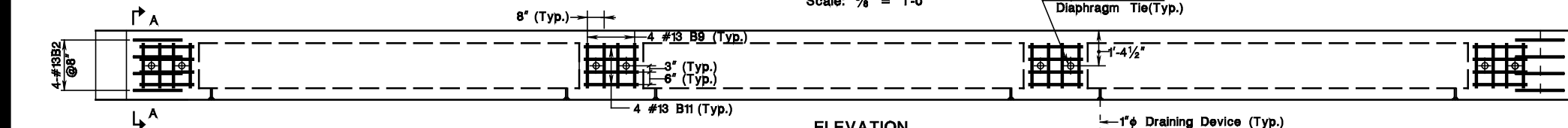
- Threaded Inserts shall be provided for #16 bars at both ends. (See Section B-B, Bridge Sheet No.) The cost shall be included in the Pay Item "Prestressed Concrete Box Beams (Type BII-48) , 48" x 33" .
- Contractor shall insure that holes for transverse tie rod line up after erection. See Bridge Sheet No. B_



NOTE: B5 & B6 Shall be Staggered

ELEVATION

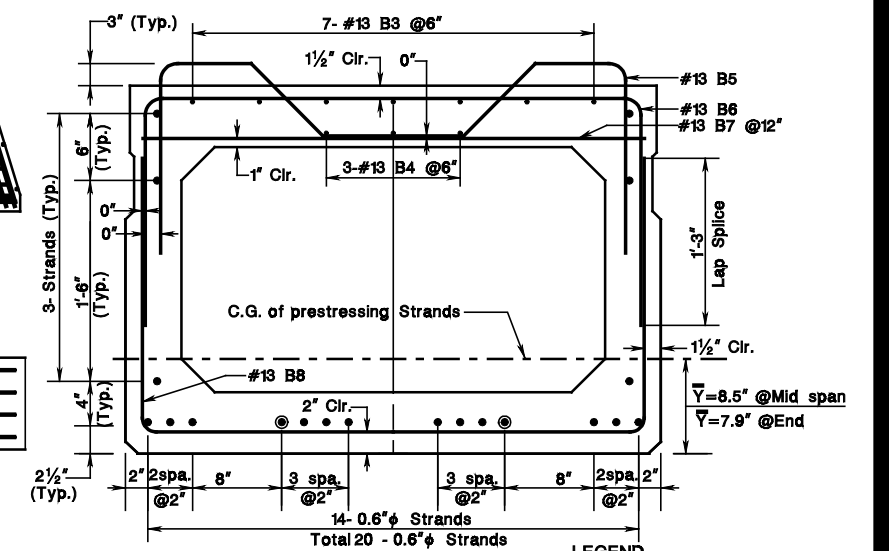
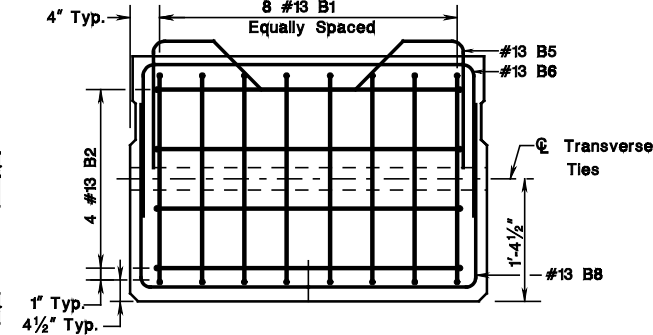
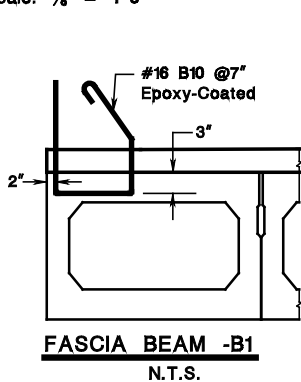
Scale: $\frac{3}{8}" = 1'-0"$



- A = Estimated prestressed camber minus deflection of beam. (Shall be compared with actual measured in field at time of Erection & shall be reported to the Engineer.)
- B = Deflection due to dead load of slab plus secondary dead load (Parapet, Sidewalk etc...).

FASCIA BEAM -B1

Scale: $\frac{3}{8}" = 1'-0"$



LEGEND

- STRANDS
- DEBONDED STRANDS, L=10'-0" @ BOTH ENDS
- REBARS

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	CHK. BY
EST. BY	CHK. BY
RECS. BY	CHK. BY
IN CHARGE OF	

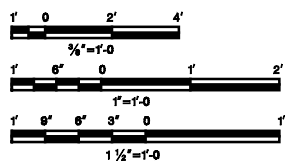
NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

P.C. BOX BEAM DETAILS

ROUTE : CONTRACT NO. :

MUNICIPALITY COUNTY

SCALE : AS SHOWN
BRIDGE SHEET NO B14 OF B21

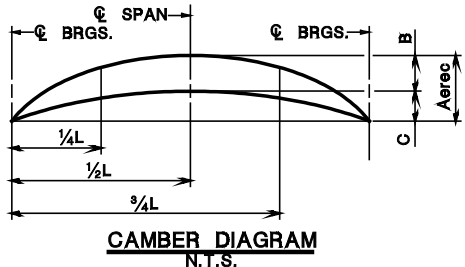
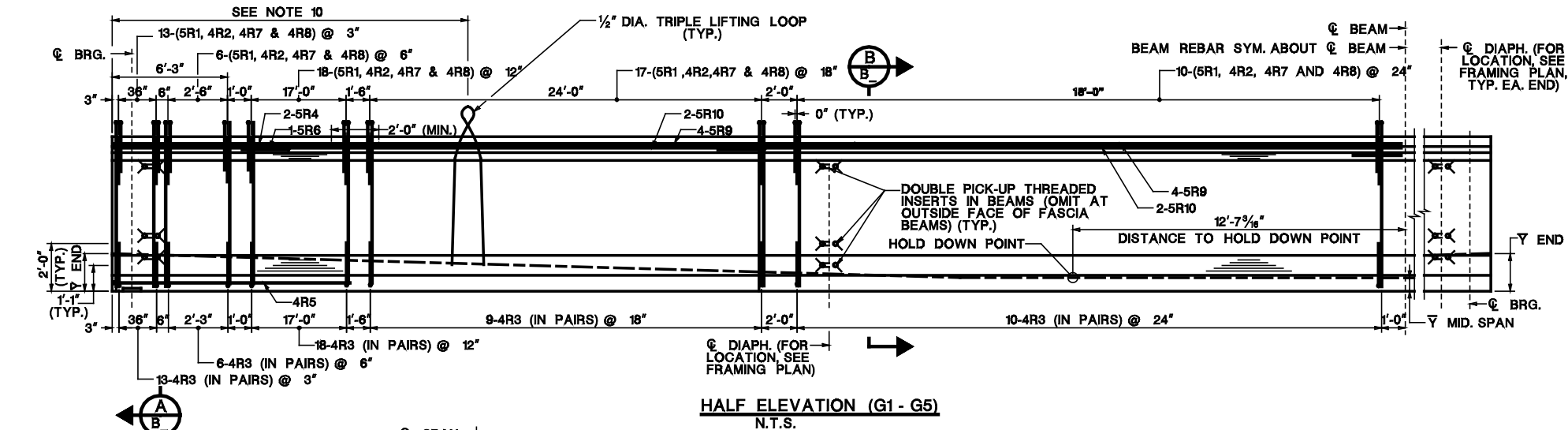
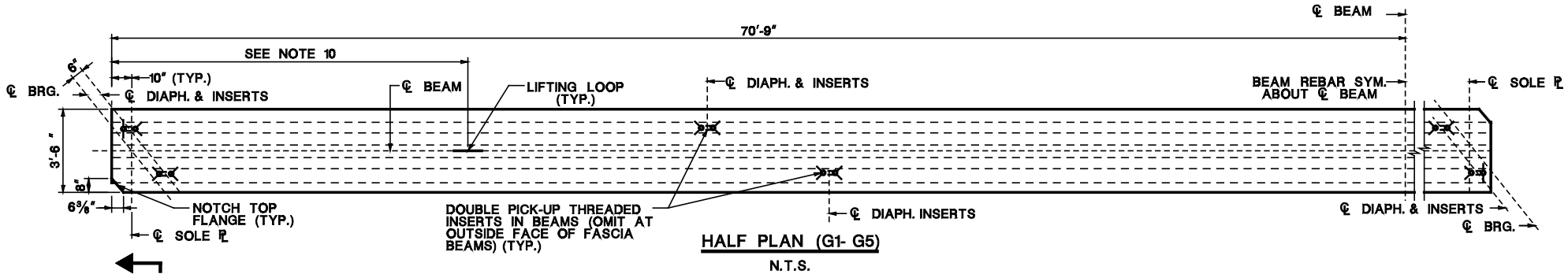


REVISION	BY	CHK'D	DATE

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			

NOTES:

- FOR GENERAL NOTES, SEE SH. B.
- PRESTRESSING STRANDS:
THE PRESTRESSING STRANDS SHALL BE 0.6 IN. DIA. 7-WIRE UNCOATED STEEL STRANDS CONFORMING TO AASHTO M203 (ASTM A416) GRADE 270 AND SHALL BE LOW RELAXATION. EACH STRAND SHALL BE GIVEN AN INITIAL TENSION OF 0.75 F_s AS SPECIFIED IN APPLICABLE SECTIONS OF PCI DESIGN HANDBOOK PRECAST AND PRESTRESSED CONCRETE, FIFTH EDITION. CONTRACTOR SHALL SUBMIT FOR APPROVAL HIS PROPOSED SEQUENCE OF RELEASING STRANDS. ANY CHANGE IN THE SYSTEM OF PRESTRESSING MUST BE ACCOMPANIED BY COMPLETE CALCULATIONS FOR APPROVAL BY ENGINEER. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS OF PRESTRESS LOSSES FOR THE ENGINEER'S REVIEW AND APPROVAL.
- CONCRETE DESIGN STRENGTH:
DESIGN COMPRESSIVE STRENGTH (f'_c) = 8,000 PSI, CLASS HPC CONCRETE.
COMPRESSIVE STRENGTH OF PRESTRESS (f'_{ci}) = 6,400 PSI.
- CONCRETE:
ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" OR ROUNDED TO 3/4" RADIUS. ANGLES OF INTERSECTION BETWEEN WEBS AND FLANGES SHALL BE ROUNDED TO NOT LESS THAN 3/4" RADIUS. TOP SURFACE OF BEAMS SHALL BE ROUGHENED TO THE SATISFACTION OF THE ENGINEER, AT APPROXIMATE TIME OF INITIAL SET. ALL LAITANCE SHALL BE REMOVED WITH A STIFF WIRE BRUSH.
- SOLE PLATES:
SOLE PLATES SHALL CONFORM TO AASHTO M183 AND SHALL CONFORM TO AASHTO M183 AND SHALL BE HOT-DIPPED GALVANIZED AS PER SPECIFICATIONS. COST OF SOLE PLATES SHALL BE INCLUDED IN PRICE BID FOR PRESTRESSED CONCRETE BEAMS.
- BEAM LENGTHS:
LENGTHS SHOWN ON DRAWINGS DO NOT INCLUDED EFFECTS OF ELASTIC SHORTENING, CREEP, OR SHRINKAGE. CONTRACTOR SHALL COMPENSATE FOR THE EFFECTS IN COMPUTING CASTING LENGTHS.
- MILD STEEL REINFORCEMENT:
REINFORCEMENT BARS SHALL CONFORM TO AASHTO M31, GRADE 60. MINIMUM CLEAR COVER SHALL BE 1 1/2" UNLESS OTHERWISE NOTED.
- CAMBER AND DEFLECTION:
THE ERECTION CAMBER A_{erec} IS AN ESTIMATE OF THE CAMBER AT THE TIME OF GIRDER ERECTION. THE ERECTION CAMBER SHALL BE CHECKED BY THE CONTRACTOR IN THE FIELD TO ESTABLISH PROPER CONCRETE HAUNCH AND DECK ELEVATIONS. DEAD LOAD DEFLECTION INCLUDES THE COMBINED EFFECT OF THE WEIGHT OF SLAB STAY-IN-PLACE FORMS, DIAPHRAGMS, AND SUPERIMPOSED DEAD LOADS.
- FABRICATION OF PRESTRESSED BEAMS SHALL BE IN ACCORDANCE WITH SECTION 502 OF THE SPECIFICATIONS.
- LIFTING SYSTEM:
LIFTING HOOK SIZE AND LOCATION SHALL BE DESIGNED BY THE CONTRACTOR AND SHOWN IN THE SHOP/ERECTION DRAWINGS. LIFTING HOOK SHALL BE DESIGNED WITH A FACTOR OF SAFETY OF 4.0 AND AS SPECIFIED IN APPLICABLE SECTIONS OF PCI PRECAST AND PRESTRESSED CONCRETE HANDBOOK. LIFTING SYSTEM SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY. ALL CALCULATIONS AND MATERIAL SPECIFICATIONS SHALL BE INCLUDED WITH THE SHOP DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND DETAILS FOR TEMPORARY SUPPORT OF BEAMS DURING ERECTION. SUBMISSION SHALL BE MADE PRIOR TO OR CONCURRENT WITH BEAM SHOP DRAWINGS. AS A MINIMUM, THE TEMPORARY BRACING SHALL BE LOCATED AT BEARING LOCATION.
- PAYMENT:
THE COST OF ALL CONCRETE REINFORCING STEEL, PRESTRESSED STRANDS, MATERIALS EMBEDDED IN THE BEAM CONCRETE, SOLE PLATE ASSEMBLIES, GROUTING ENDS OF BEAMS, TEMPORARY BRACING AND INCIDENTAL ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE BEAMS.



A_{rel} = ESTIMATED PRESTRESS CAMBER AT RELEASE LESS Δ DUE TO D.L. OF BM
A_{erec} = ESTIMATED PRESTRESS CAMBER AT RELEASE LESS Δ DUE TO D.L. X CREEP FACTOR C = 1.5
B = Δ DUE TO D.L. OF SLAB, FORMS, PARAPET, DIAPHRAGMS, AND FUTURE PAVING
C = NET FINAL CAMBER (A_{erec} - B)

ESTIMATED BEAM CAMBER (INCH)					
LOCATION	A _{rel}	A _{erec}	B	C	
G1, G5	1/4L	3 1/4	4 7/8	-1 1/8	3 3/4
	1/2L	4 1/4	6 1/4	-1 5/8	4 3/4
	3/4L	3 1/4	4 7/8	-1 1/8	3 3/4
G2, G3, G4	1/4L	3 1/4	4 7/8	-1 5/8	3 1/2
	1/2L	4 1/4	6 1/4	-2	4 3/8
	3/4L	3 1/4	4 7/8	-1 5/8	3 1/2

POSITIVE VALUE INDICATES UPWARD DEFLECTION.

SCHEDULE OF MILD STEEL REINFORCEMENT											
No.	MARK	SIZE	LENGTH	TYPE	A	B	C	D			
128	5R1 *	16	14'-0"	1	6'-9 1/2"	5"	—	—			
128	4R2 *	13	6'-10"	5	1'-6"	4"	2 1/2"	3'-3"			
256	4R3 *	13	3'-5"	3	11"	11"	6"	1'-7"			
4	5R4 *	16	10'-6"	2	9'-0"	1'-6"	—	—			
2	4R5 *	13	20'-11 1/2"	2	9'-6"	1'-11 1/2"	9'-6"	—			
2	5R6 *	16	21'-0"	2	9'-0"	3'-0"	9'-0"	—			
128	4R7 *	13	2'-0"	4	5"	6 1/2"	6 1/2"	—			
128	4R8 *	13	6'-7"	6	—	—	—	—			
16	5R9 *	16	33'-4"	STR.	—	—	—	—			
8	5R10 *	16	37'-10"	STR.	—	—	—	—			
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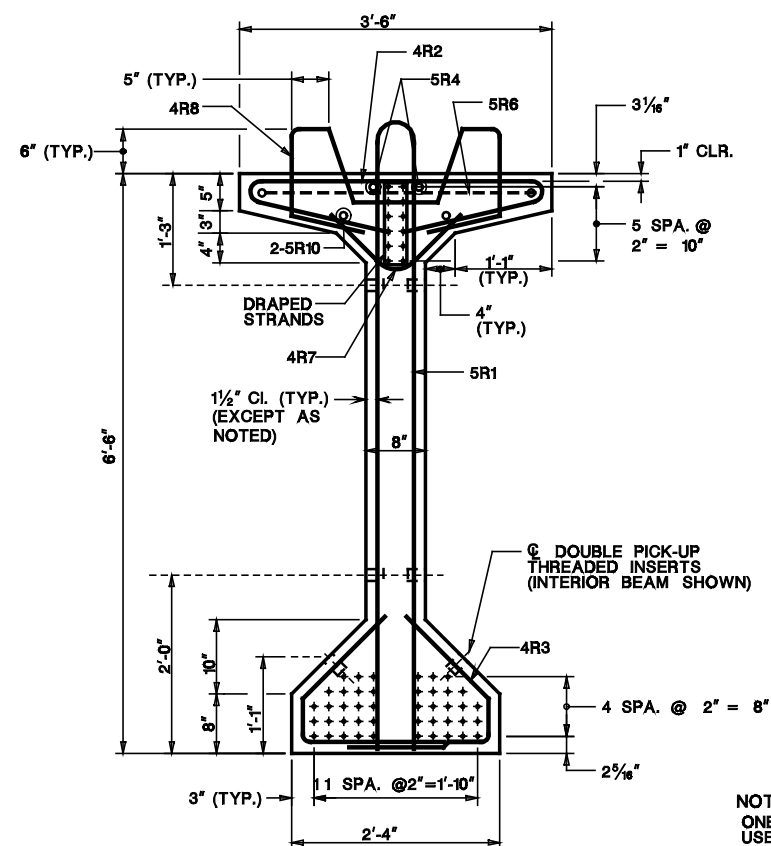
* EPOXY BARS

BEAM NO.	▽ MIDSPAN	▽ ENDS	NO. OF STRANDS
G1 - G5	6.17"	19.46"	56

CONTROL SECTION		JOB NO.	
DES. BY		CHK. BY	
DWN. BY		CHK. BY	
EST. BY		CHK. BY	
SPECS. BY		CHK. BY	
IN CHARGE OF			

NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
78" PRETENSIONED PRESTRESSED CONCRETE BEAMS	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B15 OF B21	

REVISION	BY	C'D	DATE

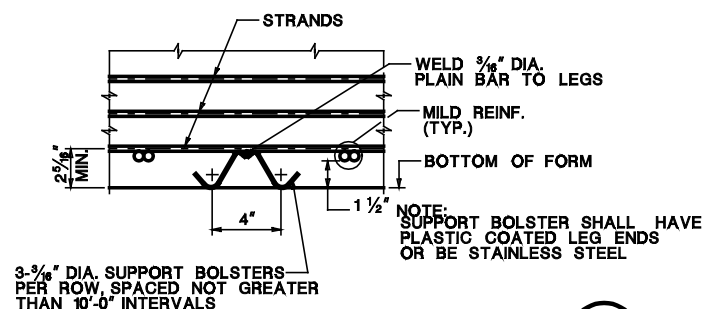


NOTE:
ONE PIECE STIRRUPS MAY BE
USED AS AN ALTERNATE TO
TWO PIECE STIRRUPS.

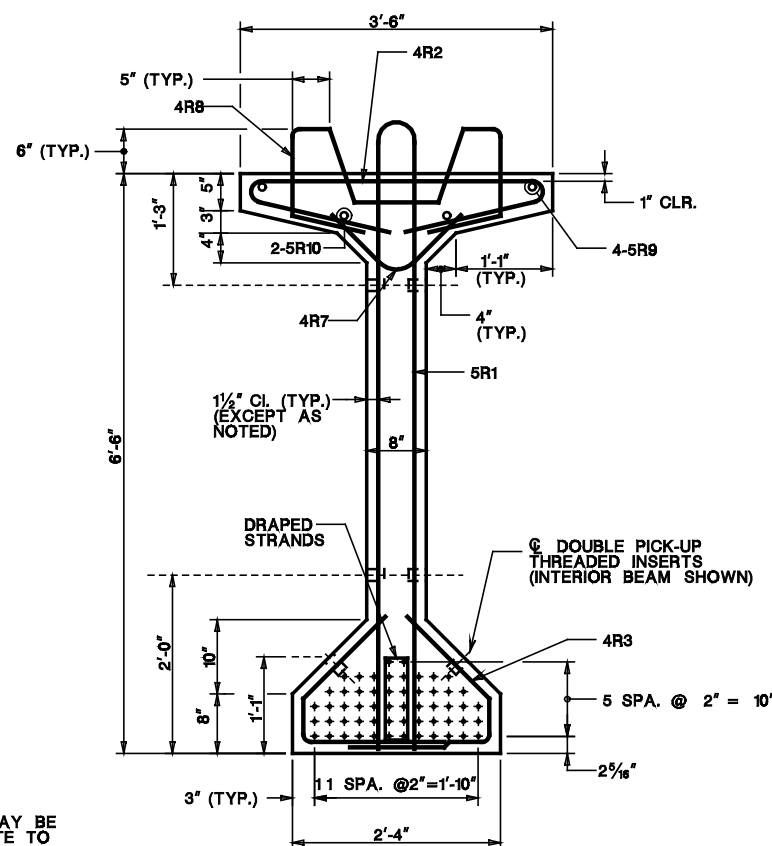


LEGEND:

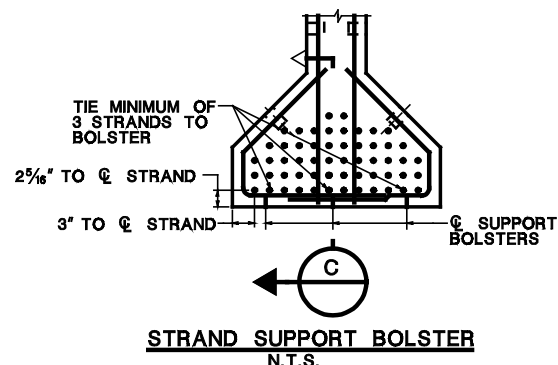
 INDICATES FULLY BONDED STRANDS



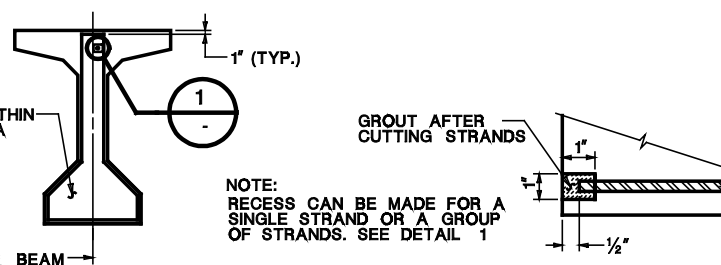
SECTION C
N.T.S.



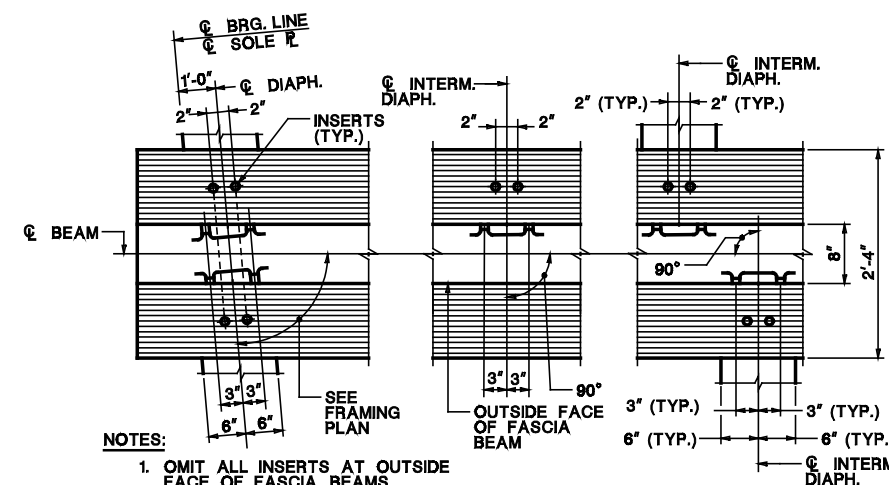
SECTION
 $\frac{3}{4}" = 1'-0"$



STRAND SUPPORT BOLSTER
N.T.S.



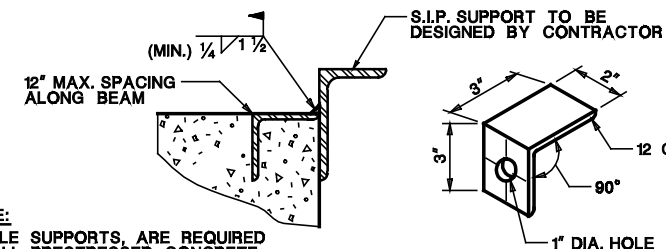
NOTE:
RECESS CAN BE MADE FOR A
SINGLE STRAND OR A GROUP
OF STRANDS. SEE DETAIL 1



NOTES:

1. OMIT ALL INSERTS AT OUTSIDE FACE OF FASCIA BEAMS.
2. FOR INSERTS OF END DIAPHRAGM AT PIERS, SEE SH. B.

AT FASCIA BEAM AT INT. BEAM
AT END DIAPH. AT INTERMEDIATE DIAPH.
LOCATION PLAN OF THREADED INSERTS
N.T.S.



NOTE:
ANGLE SUPPORTS, ARE REQUIRED
IN ALL PRESTRESSED CONCRETE
BEAMS FOR S.I.P. DECK FORMS
UNLESS AN ALTERNATE DECK
PANEL SUPPORT DETAIL IS
APPROVED.

ANGLE SUPPORT DETAILS
N.T.S.

NOTE:
1. FOR PRESTRESSED CONCRETE BEAM NOTES, SEE SH. B

BDC077.05 - ORIGINAL SHEET	CONTROL SECTION		JOB NO. _____	
	DES. BY		CHK. BY	
	DWN. BY		CHK. BY	
	EST. BY		CHK. BY	
	SPEC. BY			
	IN CHARGE OF _____			

REVISION	BY	C/K/D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

PRESTRESSED CONCRETE BEAM DETAIL

ROUTE : CONTRACT NO.:

MUNICIPALITY _____ COUNTY _____

SCALE : AS SHOWN

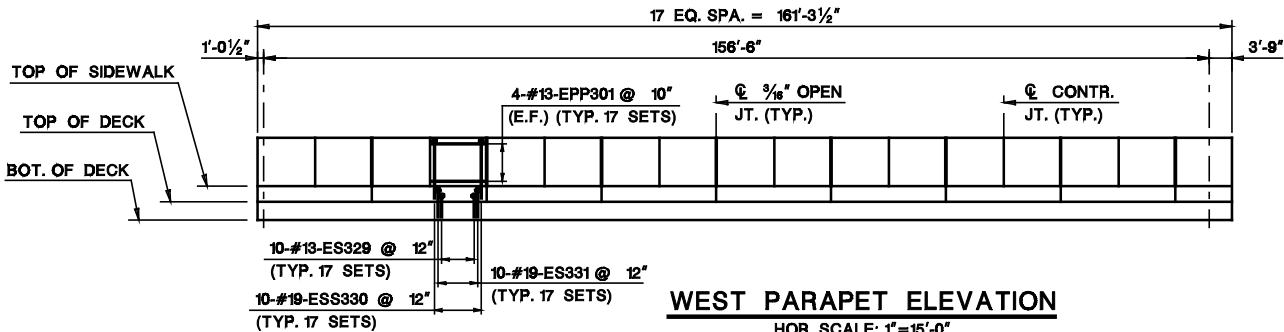
BRIDGE
SHEET NO. B16 OF B21

65

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N.J.		1	1
STRUCTURE NO.			
STRUCTURE NAME:			

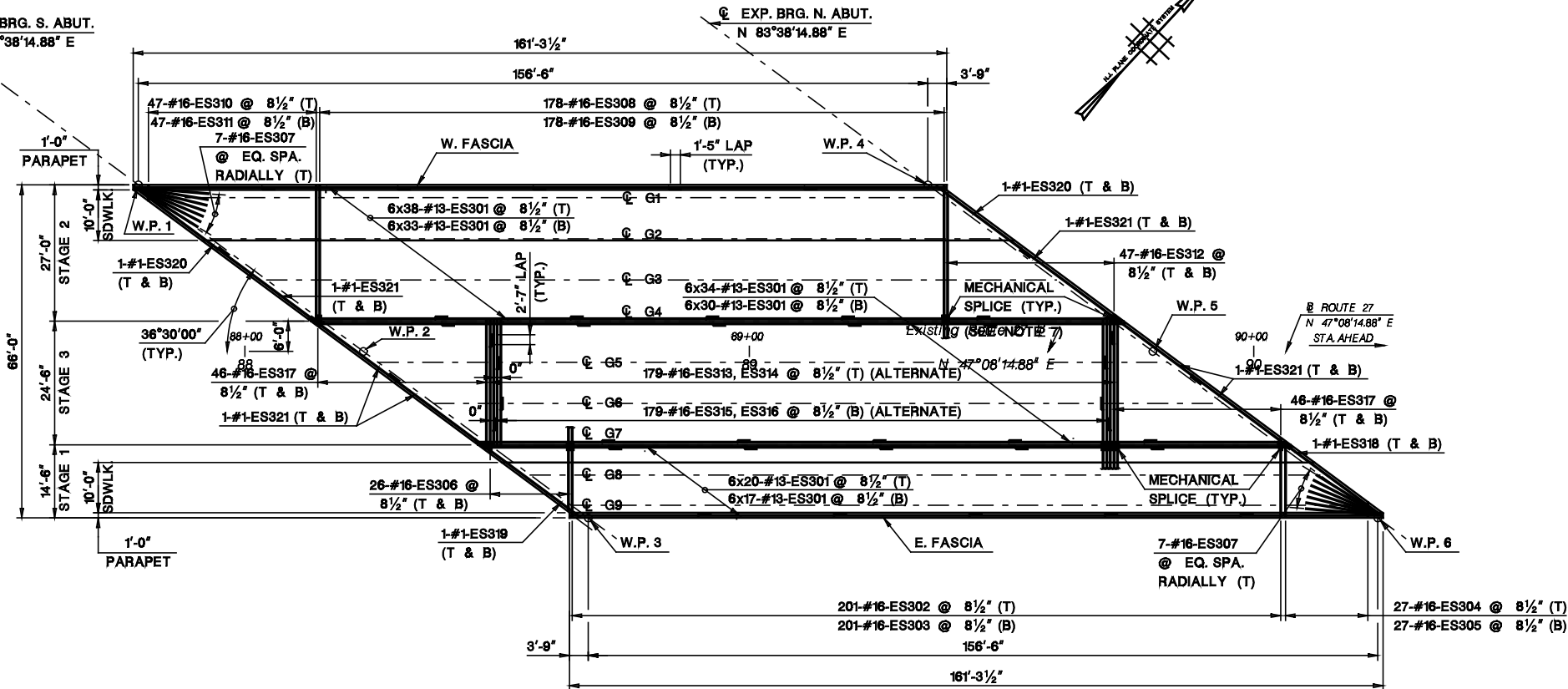
NOTES:

1. ALL DECK SLAB, SIDEWALK AND PARAPET REINFORCEMENT SHALL BE EPOXY COATED.
2. TRANSVERSE REINFORCEMENT SHALL BE PLACED NORMAL TO THE GIRDERS.
3. LAP SPLICES ARE CLASS B UNLESS OTHERWISE NOTED.
4. NO SUPPORTS FOR STAY-IN-PLACE FORMS SHALL EXTEND INTO THE THEORETICAL BOTTOM OF SLAB.
5. ANY CONSTRUCTION RELATED HARDWARE OR MATERIALS LEFT EMBEDDED IN CONCRETE MUST BE EPOXY COATED.
6. ALL TRANSVERSE REINFORCEMENT SHALL BE CONNECTED AT STAGE WITH MECHANICAL SPLICE AT STAGE LINE. MECHANICAL SPLICES INCIDENTAL TO THE COST OF REINFORCEMENT.



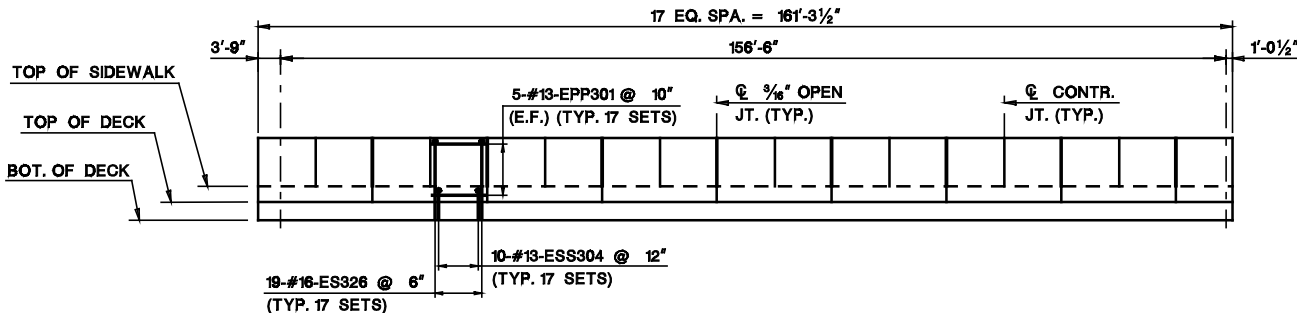
WEST PARAPET ELEVATION

HOR. SCALE: 1"=15'-0"
VERT. SCALE: 1"=10'-0"



DECK SLAB PLAN

SCALE: 1"=15'-0"



EAST PARAPET ELEVATION

HOR. SCALE: 1"=15'-0"
VERT. SCALE: 1"=10'-0"



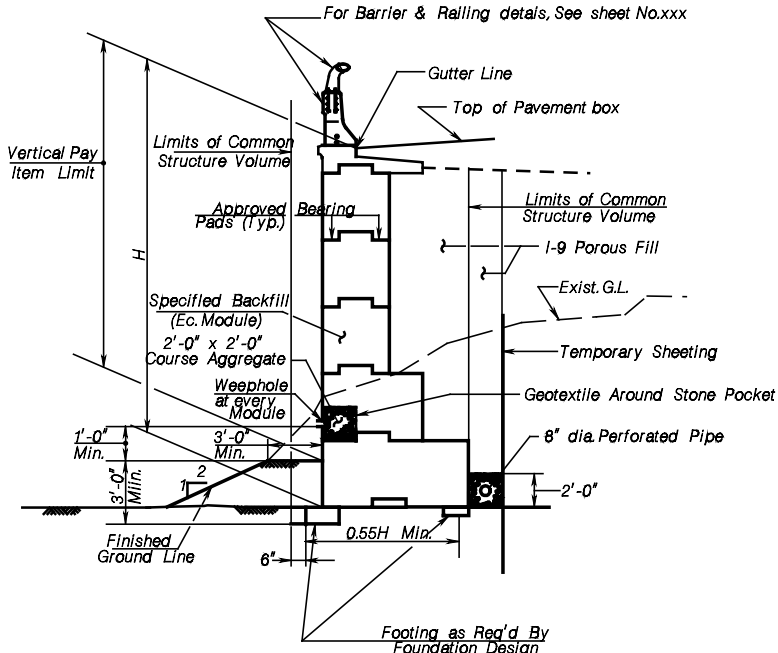
REVISION	BY	C'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
DECK SLAB PLAN	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B17 OF B21	

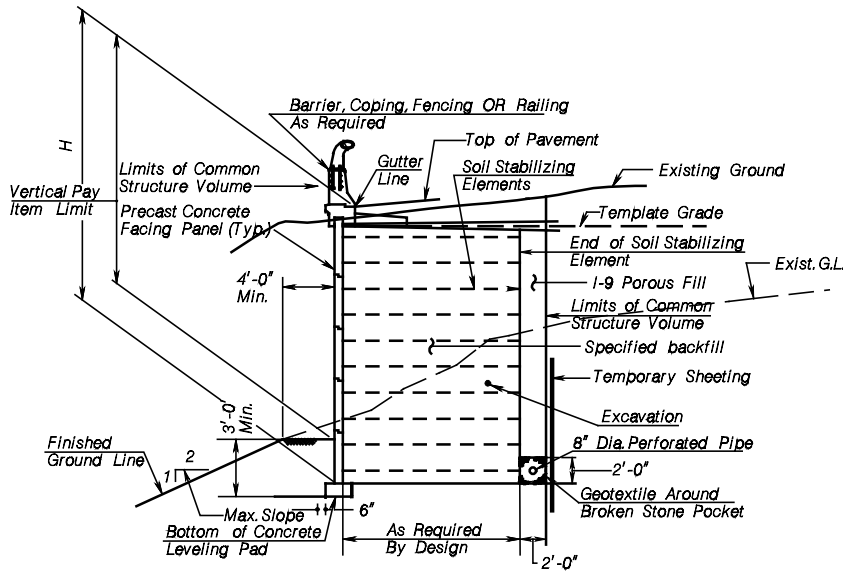
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			
RETAINING WALL, LOCATION NO. 1			

NOTES:

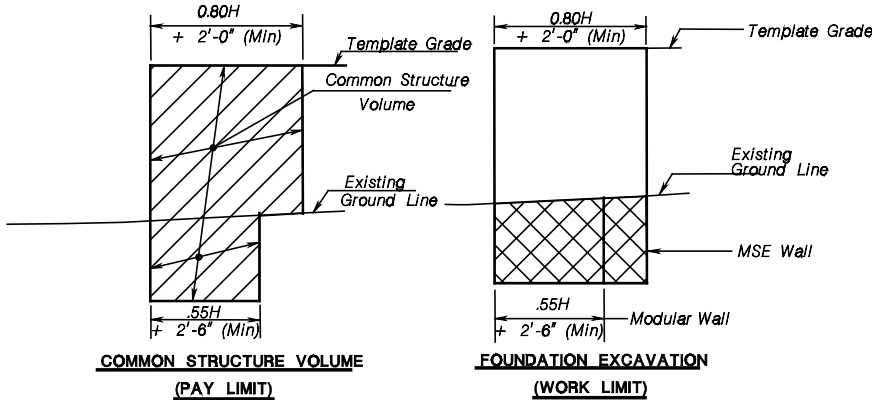
- For General notes, See sheet General Plan and Elevation.
- Bottom of leveling pad (OR footing) as shown on sheet No.BXX, Maintain a minimum 3'-0" frost cover. The contractor has the option to place the leveling pad(footing) below the elevation shown.
- The contractor is responsible for providing a cast in place barrier (OR precast) section for the end unit where a Guide Rail attachment is required.Details shall be in accordance with those shown in Highway Construction Details,CD-612-14.
- The color of the concrete for the barrier unit and wall panels shall be the same.
- All reinforcement shall be corrosion protected.
- If Precast barrier unit is selected, anchor bolts for the railing shall be provided in barrier during casting.No drilling shall be allowed in precast units.



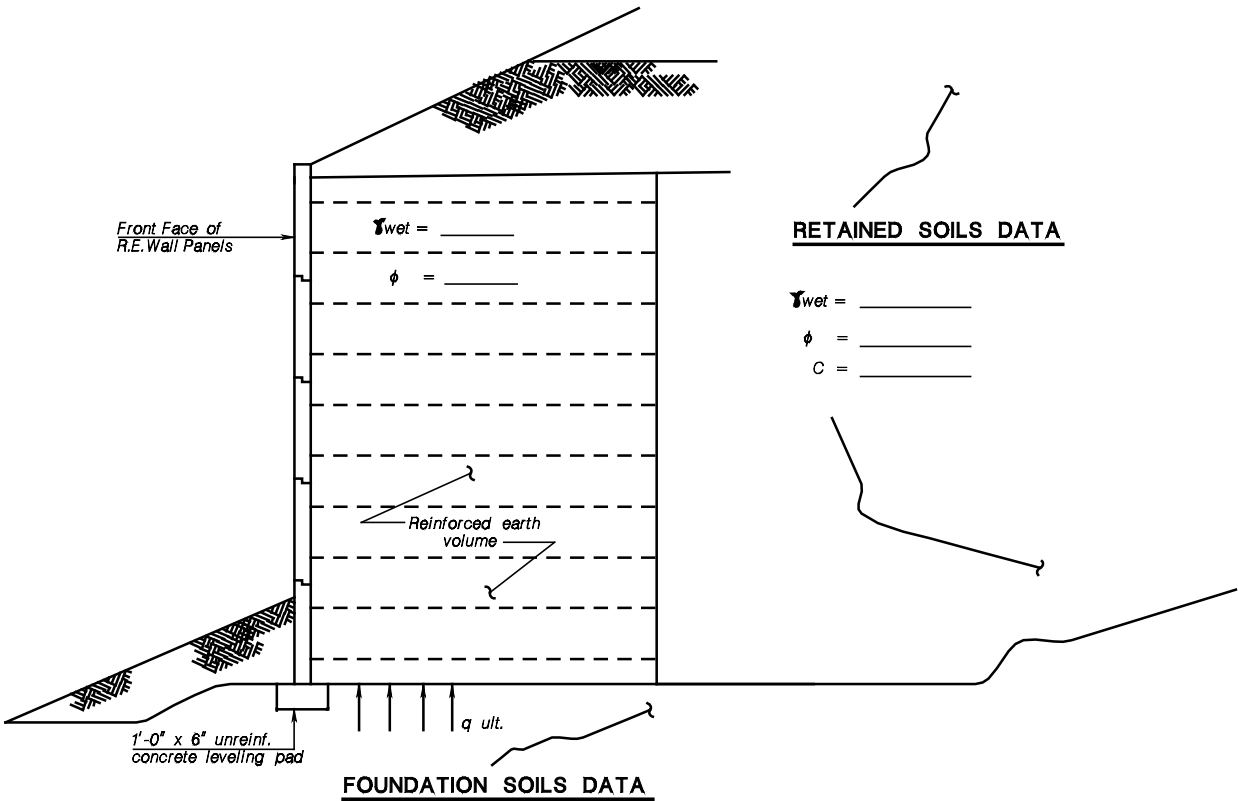
LIMITS OF COMMON STRUCTURE VOLUME
PREFABRICATED MODULAR WALL
N.T.S.



TYPICAL SECTION
MECHANICALLY STABILIZED EARTH WALL



LIMITS FOR PROPRIETARY WALL
IN CUT AND FILL SECTION
NTS



Unit Weight (γ_{wet}) = _____

Angle of Internal Friction (ϕ) = _____

Unit Cohesion (c) = _____

Ultimate Bearing Capacity ($q_{ult.}$) = _____

WORK ITEM - RETAINING WALL, LOCATION NUMBER 1			
For Information Only (Price to be included in wall item)			
DESCRIPTION	UNIT	Modular Wall	MSE Wall
FOUNDATION EXCAVATION	CY	100	125
CONCRETE IN SUPER STRUCTURE, PARAPET *	LF	50	50
HEAVY TRUCK PARAPET STEEL RAILING	LF	50	50
3" R.M.C., TYPE CUG	LF	50	50
10" BY 3'-0" JUNCTION BOXES	UNIT	1	1
CONCRETE LEVELING PAD	LF	49	49
SPECIFIED BACKFILL	CY	275	350
POROUS FILL 1-9	CY	345	50
TEMPORARY SHEETING	SF	225	225

* REINFORCING STEEL (EPOXY COATED) INCLUDED

NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
RETAINING WALL, SECTION AND DETAILS	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B19 OF B21	

REVISION	BY	CHK'D	DATE

CONTROL SECTION		JOB NO.
DES. BY	CHK. BY	
DWN. BY	CHK. BY	
EST. BY	CHK. BY	
RECS. BY	CHK. BY	
IN CHARGE OF		

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME OVERHEAD SIGN SUPPORT STRUCTURE NO. 1			

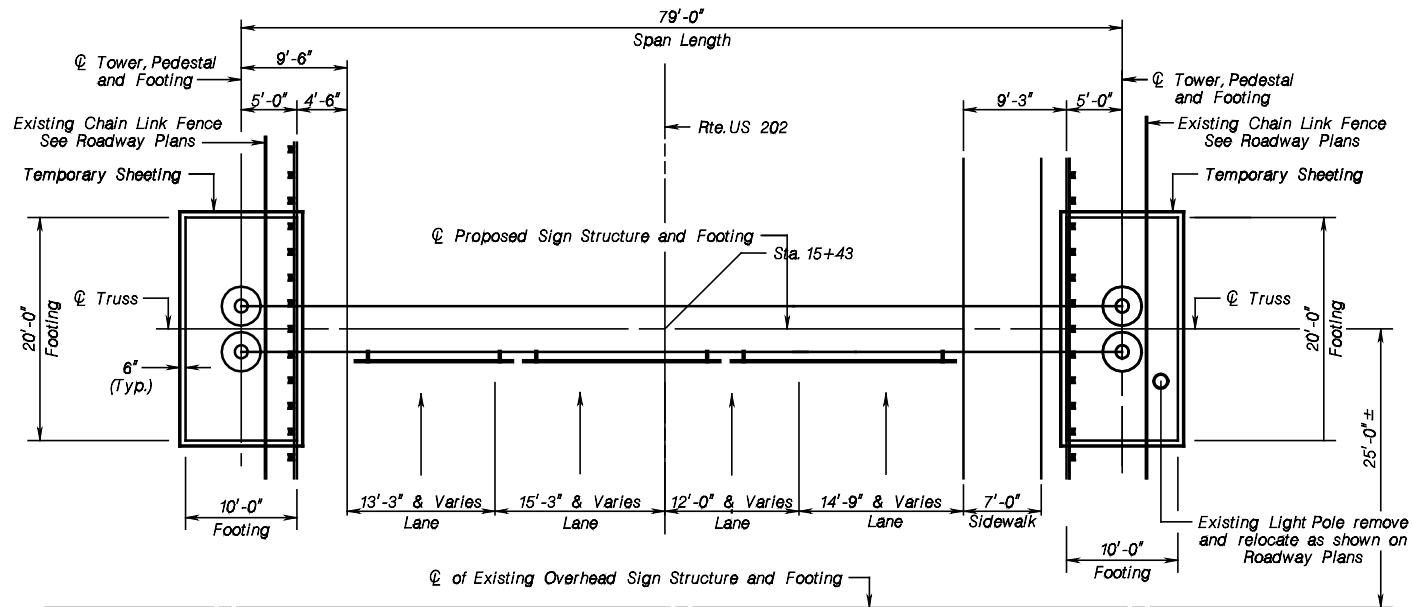
NOTES:

- For General Notes and Index Of Drawings see sheet entitled, "Overhead Sign Support Structures, General Notes, Plan and Elevations" (Standard Drawing Plate No. OH-D1). For Quantities, see sheet entitled "Overhead Sign Support Structures Schedule Of Structures" (Standard Drawing Plate No. OH-D2).
- Top of Pedestals shall be set 4" minimum above the finished ground line.
- The elevation of the bottom of the Tower Shaft Base Plates shall be set at (Anchor Bolt Dia. + 1") above top of Pedestal or top of Barrier Pedestal see sheet entitled, "Overhead Sign Support Structures Tower Shaft Base And Truss Seat Details" (Standard Drawing Plate No. OH-D8).
- The dimensions shown on the Plan are along the Centerline of the Structure.
- For details of Barrier Pedestal, Pedestal and Foundations see sheets entitled "Overhead Sign Support Structures Schedule Of Foundations And Miscellaneous Details" (Standard Drawing Plate No. OH-D3) and "Overhead Sign Support Structures Foundation Details" (Standard Drawing Plate No. OH-D4).
- OSHA proximity rules regarding the Overhead High Voltage Transmission Lines shall be adhered to when using the construction equipment.
- The point at a minimum vertical clearance elevation shall be used to locate the proposed sign structure.
- The highest point of Roadway Elevations is taken from Existing Microfilm Plans. The Contractor shall verify elevations in the field. Any discrepancies shall be reported to the Design Unit. The Contractor shall get an approval before Sign Support fabrication.
- For Gude Rail, Existing and Proposed Utilities' locations and details refer to Roadway Plans.
- Existing Sign Structure Pedestals shall be removed to a depth of 2 feet below ground level and the area shall be restored with backfilling, topsoiling, fertilizing, seeding and straw mulching in accordance with Roadway Plans.
- Existing Sign Structure and Pedestals shall be removed to a depth of 2 feet below ground level and the area shall be restored with backfilling, topsoiling, fertilizing, seeding and straw mulching in accordance with Roadway Plans. The cost shall be included in "Clearing Site, Structure".

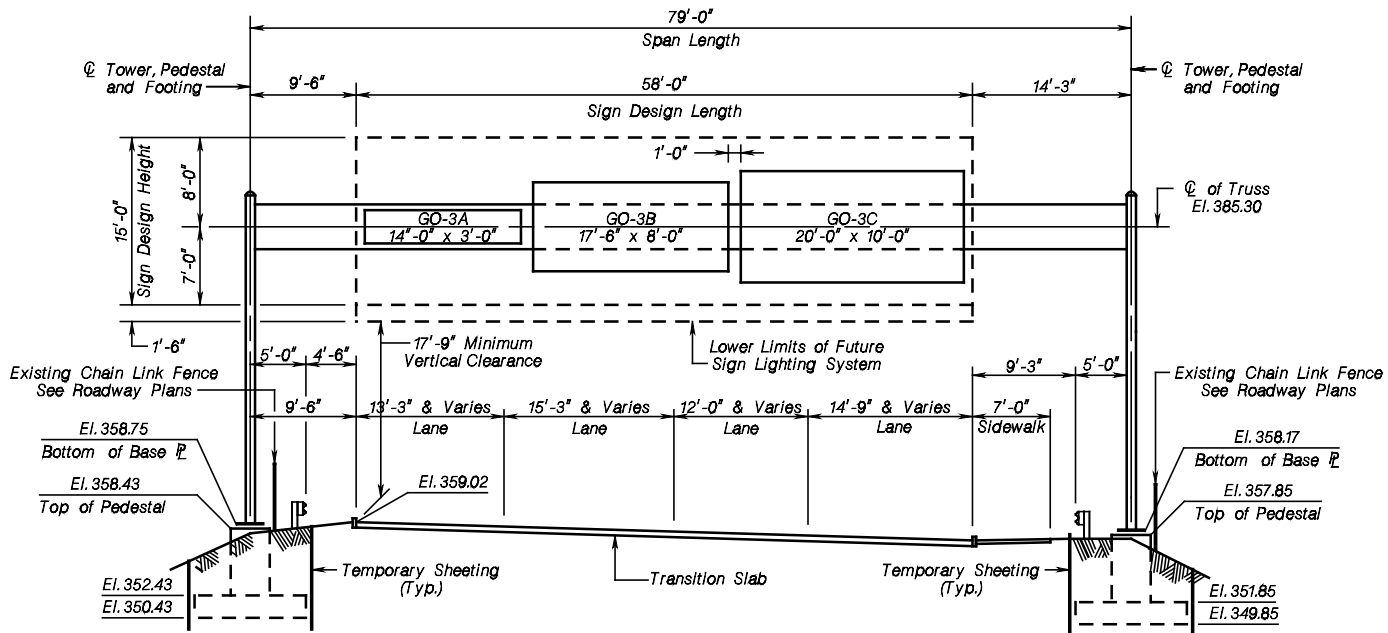
THE CONTRACTOR SHALL COMPLY WITH THE STATE'S UNDERGROUND FACILITY PROTECTION ACT AND NOTIFY THE STATE'S ONE CALL SYSTEM AND IDENTIFY ITSELF AS THE STATE'S CONTRACTOR AND SPECIFY THE ROUTE AND MILEPOST OF THE SIGN STRUCTURE BEFORE PERFORMING WORK ON THE PROJECT. THE ONE CALL SYSTEM CAN BE REACHED BY CALLING 1-800-272-1000. THE CONTRACTOR SHALL ALSO MAKE SEPARATE NOTIFICATIONS TO THE DEPARTMENT'S ELECTRICAL MAINTENANCE AND TRAFFIC OPERATIONS BUREAUS WHERE CONSTRUCTION MAY IMPACT OR BE ADJACENT TO THEIR RESPECTIVE EXISTING FACILITIES. NO DEPARTMENT-OWNED FACILITIES AS DESCRIBED IN THE SPECIAL PROVISIONS SHALL BE ACCESSED, MODIFIED, REMOVED OR DISTURBED IN ANY MANNER, WITHOUT MAKING SUCH NOTIFICATIONS.

SUMMARY OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
201009P	CLEARING SITE, STRUCTURE ()	LUMP SUM	LUMP SUM
202009P	EXCAVATION, UNCLASSIFIED	CY	144
504015P	CONCRETE FOOTING	CY	42
504003P	REINFORCEMENT STEEL	LBS	2105
504006P	REINFORCEMENT STEEL, EPOXY-COATED	LBS	1205
512012M	OVERHEAD SIGN SUPPORT, STRUCTURE NO. 1	UNIT	1
501003P	TEMPORARY SHEETING	SF	1344

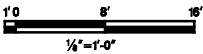
NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
GENERAL PLAN AND ELEVATION	
ROUTE :	CONTRACT NO. :
MUNICIPALITY	COUNTY
SCALE : AS SHOWN	
BRIDGE SHEET NO. B20 OF B21	



PLAN
Scale: 1/8"=1'-0"

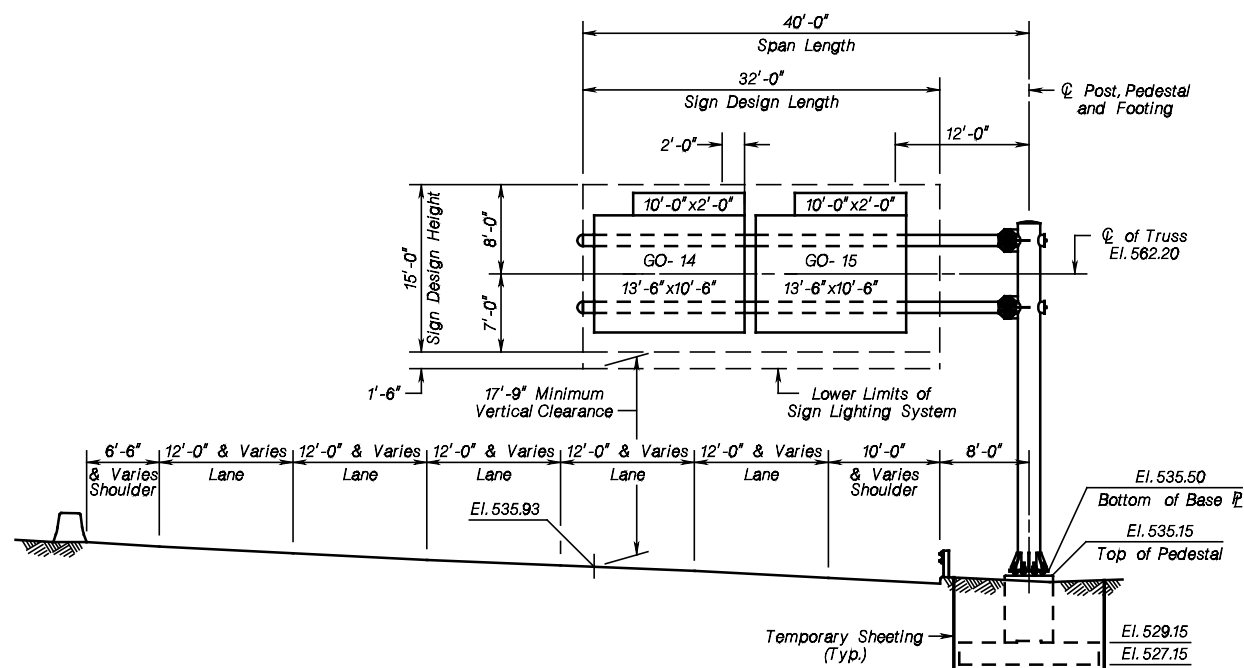
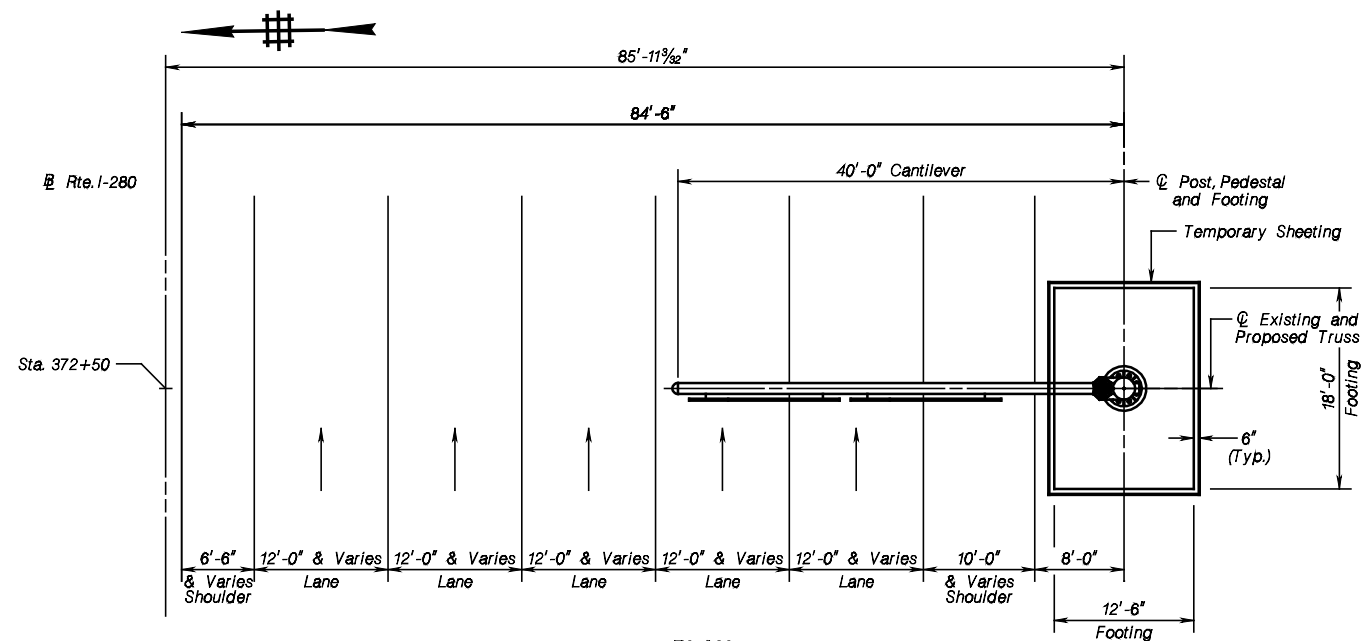


ELEVATION
OVERHEAD SIGN SUPPORT STRUCTURE NO. 1
RT. _____ AT M.P. _____ STA. NO. _____
LOOKING UPSTATION
Scale: 1/8"=1'-0"



CONTROL SECTION		JOB NO.	
DES. BY		CHK. BY	
DWN. BY		CHK. BY	
EST. BY		CHK. BY	
RECS. BY		CHK. BY	
IN CHARGE OF			

REVISION	BY	CHK'D	DATE



STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			
CANTILEVER SIGN SUPPORT			
STRUCTURE NO. 1			

- NOTES:**

1. For General Notes and Index Of Drawings see sheet entitled, "Cantilever Sign Support Structures General Notes and Elevations" (Standard Drawing Plate No. CA-D7). For Quantities, see sheet entitled "Cantilever Sign Support Structures Structure And Foundation Schedules" (Standard Drawing Plate No. CA-D2).
2. Top of Pedestals shall be set 4" minimum above the finished ground line.
3. The elevation of the bottom of the Tower Shaft Base Plates shall be set at (Anchor Bolt Dia. + 1") above top of Pedestal or top of Barrier Pedestal see sheet entitled, "Cantilever Sign Support Structures Post Base And Foundation Details" (Standard Drawing Plate No. CA-D6).
4. The dimensions shown on the Plan are along the Centerline of the Structure.
5. For details of Barrier Pedestal, Pedestal and Footing see sheet entitled "Cantilever Sign Support Structures Foundation Details" (Standard Drawing Plate No. CA-D3).
6. OSHA proximity rules regarding the Overhead High Voltage Transmission Lines shall be adhered to when using the construction equipment.
7. The point at a minimum vertical clearance elevation shall be used to locate the proposed sign structure.
8. The highest point of Roadway Elevations is taken from the Field Survey. The Contractor shall verify elevations in the field. Any discrepancies shall be reported to the Design Unit. The Contractor shall get an approval before Sign Support fabrication.
9. For Guide Rail, Existing and Proposed Utilities locations and details refer to Roadway Plans.
10. The Proposed Sign Support Structure is not relocated. The Contractor shall remove the Existing Footings and Pedestals. Build new Footings and Pedestals as shown on the plan. The cost of removal of the Existing Footings and Pedestals shall be included in "Clearing Site, Structure".
11. The Proposed Sign Support Structure is not relocated. The Contractor shall remove the Existing Footings and Pedestals. Build new Footings and Pedestals as shown on the plan. The cost of removal of the Existing Footings and Pedestals shall be included in "Clearing Site, Structure".
12. The Sign Structure shall receive Lumitrack Lighting System. Refer to Special Provisions for details. Fixtures shall be included in "Sign Lighting Assembly" see Roadway Plans.
13. Sign panel hangers shall not be used for supporting Lumitrack Lighting System. Lumitrack Lighting System shall be independently supported by steel truss.

THE CONTRACTOR SHALL COMPLY WITH THE STATE'S UNDERGROUND FACILITY PROTECTION ACT AND NOTIFY THE STATE'S ONE CALL SYSTEM AND IDENTIFY ITSELF AS THE STATE'S CONTRACTOR AND SPECIFY THE ROUTE AND MILEPOST OF THE SIGN STRUCTURE BEFORE PERFORMING WORK ON THE PROJECT. THE ONE CALL SYSTEM CAN BE REACHED BY CALLING 1-800-272-1000. THE CONTRACTOR SHALL ALSO MAKE SEPARATE NOTIFICATIONS TO THE DEPARTMENT'S ELECTRICAL MAINTENANCE AND TRAFFIC OPERATIONS BUREAUS WHERE CONSTRUCTION MAY IMPACT OR BE ADJACENT TO THEIR RESPECTIVE EXISTING FACILITIES. NO DEPARTMENT-OWNED FACILITIES AS DESCRIBED IN THE SPECIAL PROVISIONS SHALL BE ACCESSED, MODIFIED, REMOVED OR DISTURBED IN ANY MANNER, WITHOUT MAKING SUCH NOTIFICATIONS.

SUMMARY OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
201009P	CLEARING SITE, STRUCTURE (_____)	LUMP SUM	LUMP SUM
202009P	EXCAVATION, UNCLASSIFIED	OY	76
504015P	CONCRETE FOOTING	OY	20
504003P	REINFORCEMENT STEEL	LBS	1876
504006P	REINFORCEMENT STEEL, EPOXY-COATED	LBS	1390
512003M	CANTILEVER SIGN SUPPORT STRUCTURE NO.1	UNIT	1
501003P	TEMPORARY SHEETING	SF	685

ORIGINAL - ORIGINAL SHEET	CONTROL SECTION _____		JOB NO. _____	
	DES. BY _____		CHK. BY _____	
	DWN. BY _____		CHK. BY _____	
	EST. BY _____		CHK. BY _____	
	PREP. BY _____			
IN CHARGE OF _____				

REVISION	BY	C/K'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

GENERAL PLAN AND ELEVATION

ROUTE : CONTRACT NO.:

MUNICIPALITY _____ COUNTY _____

SCALE : AS SHOWN

BRIDGE SHEET NO. B21 OF B21

70
70