10/16/08 ROADWAY DESIGN STAFF MEETING

Roadway Design Unit Conference Room
9:00 a.m. – 11:00 a.m.

- **Performance Management : Cycle 04/01/08 through 03/31/09**

Interim reviews shall be completed by November 14, 2008. Please discuss the interim ratings with Jay, Scott and Dewayne.

TMT – Performance Dashboard Appraisal (PDA)

The deadline for completing Section A, B, C, and D is October 31, 2008. This includes measures, targets, weights, signatures and dates on Section A. Please submit your completed forms to Dewayne and Scott. This work needs to be completed for all employees.

- **Plans for Pre-Let Field Inspection/Combined Field Inspection : MEMO Dated April 7, 2008. Subject : Right of Way Plan Sheet Revisions**

At the time Final Design Field Inspection (FDFI) or Combined Field Inspection (CFI) plans are distributed the division, Roadway Design (RDU) will notify Location and Surveys (L&S) of the field inspection date and the current directory for the electronic plans. An e-mail to Charlie Brown and Dale Burton is sufficient.

The L&S field office will use this information to review the project limits, update planimetrics, and make necessary revisions to the project files. L&S will submit all revisions/updates to RDU prior to or at the time of the field inspection.

- **Monumentation for Permanent Utility Easements**

In order to preserve and protect NCDOT's permanent easements (Drainage and Utility), the Location and Surveys Unit will place iron pins and caps at the corners of the easement shape (similar to changes in direction for right of way).

An implementation plan and date for this change will be forthcoming.

- **Permanent Utility Easements (PUE)**

The letter for Establishing Permanent Utility Easement dated November 6, 2008, was signed by Debbie Barbour and Jon Nance. The letter provides technical guidance for the identification of permanent utility easements and incorporating this information into the design plans. Four action items were identified.

Clear zone limits will be established by the Roadway Design Engineer and will be documented as part of the project design criteria. Please include the clear zone information in the design assumption worksheet.

The hearing map legend for easements will change. The green cross hatched label for easements will be changed from "all easements" to "proposed easements (drainage, construction and utility). The pink utility easement label will be changed from "utility easement" to "existing utility easement".

- **Roadway Construction Tour :** Project Sites = U-2524AB (C. Houser), U-2524AC (C. Houser), R-2606A (Taylor), R-609IA/R-0609IB (Goodnight), I-2808A (Rochelle), K-4703 (Thomas), R-2518A (B. Moore), R-2518B (Taylor), R-2813B (Rochelle), I-4401 (Rochelle), R-2813B (Rochelle), I-5005A (Division 14), I-5003 (Division 12), I-4411 (Brew), R-2248D (Taylor).

- **Highway Design Branch Staff Meeting**

Jay discussed the Friday, October 10, 2008, Highway Design Branch Staff Meeting Minutes with the Roadway Project Engineers.

- **Open Discussion**

Concrete Transitional Section for Catch Basins and Drop Inlets

Beginning with the January 20, 2009 letting two addition pay items have been added to transport: Concrete Transitional Section for Catch Basins – Per Each and Concrete Transitional Sections for Drop Inlets – Per Each. See the memo dated October 21, 2008, and signed by Jay Bennett.

Minutes Approved By: _____

Jay A. Bennett, PE
12/01/08

AGENDA

10/16/08 ROADWAY DESIGN STAFF MEETING

Roadway Design Unit Conference Room
9:00 a.m. – 11:00 a.m.

- **Performance Management : Cycle 04/01/08 through 03/31/09** (1)
  Interim reviews shall be completed by November 14, 2008. Please discuss the interim ratings with Jay, Scott and Dewayne.
  TMT – Performance Dashboard Appraisal (PDA)

- **Plans for Pre-Let Field Inspection/Combined Field Inspection : MEMO Dated April 7, 2008. Subject : Right of Way Plan Sheet Revisions** (2)

- **Monumentation for Permanent Utility Easements** (3)

- **Permanent Utility Easements (PUE)** (4)

- **Roadway Construction Tour : Project Sites = U-2524AB (C. Houser), U-2524AC (C. Houser), R-2606A (Taylor), R-609IA/R-0609IB (Goodnight), I-2808A (Rochelle), K-4703 (Thomas), R-2518A (B. Moore), R-2518B (Taylor), R-2813B (Rochelle), I-4401 (Rochelle), R-2813B (Rochelle), I-5005A (Division 14), I-5003 (Division 12), I-4411 (Brew), R-2248D (Taylor).** (5)

- **Highway Design Branch Staff Meeting** (6)

- **Open Discussion**
  CFY 2013 PLUS 2014 BRIDGE REPLACEMENT PROJECT LIST

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

(1)

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

Memo To: Roadway Design Project Engineers

From: Jay A. Bennett, PE
State Roadway Design Engineer

Date: October 15, 2008

Subject: Performance Management - Interim Reviews

The interim PM reviews are to be completed with all your employees and signed by November 14, 2008. A performance evaluation discussion will be conducted with all of our Temporary Transportation Engineers and Engineering Aides if they have been in Roadway Design for at least 3 months. Their evaluations will not officially be entered into the Personal Section's records, but discussed for the direct benefit of those employees and supervisors. Engineering Associates and Co-ops will be evaluated with their normal reviews at the end of their stay.

The supervisor should review each Key Responsibility and Dimensions with the employee and advise him/her of their performance. Part IV, Interim Review Summary, of the work plan is to be completed and signed by the supervisor and employee. If an employee receives a rating of "below good" on any Key Responsibility or Dimension, then Part V, Developmental Plan, must be completed to help the employee to improve on the deficient item.

Each Project Engineer should set up a meeting with Dewayne, Scott and myself to give a verbal summary of the evaluations. If you have any questions, please let me know.

JAB/hcc

cc: Scott Blevins, PE
Dewayne Sykes, PE
Patsy Stephenson

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RALEIGH NC

ROADWAY DESIGN UNIT

APR 22 2008

ALLEN BLEVINS SYKES
BREW C. HOUSER
LOVERING C. TAYLOR
MOORE C. HAIRE
B. MOORE LYNDO TIPPETT
MUMFORD SECRETARY WALLS
STEPHENSON
PREPARE REPLY FOR SIGNATURE
D.Y.I.
REVIEW/DISCUSS WITH

COPIES SENT

APR 23 '08

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

April 7, 2008

To: Staff of Affected Units
Location & Surveys, Right Of Way Negotiations, Roadway Design

From: Charles W. Brown, PE, PLS
State Location & Surveys Engineer

Judy Joines
State Negotiator

Jay A. Bennett, PE
State Roadway Design Engineer

Subject: Right Of Way Plan Sheet Revisions

On February 22, 2008, a meeting of the three Units was held to discuss procedures for updating Right Of Way plans. At that meeting the following procedures were approved to be implemented by all three Units:

I Plans for Final Design Field Inspection /Combined Field Inspection (prior to right of way authorization)

- At the time of printing and sending out the Final Design Field Inspection/Combined Field Inspection plans, Roadway Design (RDU) will notify Location & Surveys (L&S) of the current directory for electronic design plans (email to Unit Head is sufficient).
- The L&S field office will review all parcels affected by new rights of way and easements to verify and update property changes such as ownership, subdivisions, and recombinations.
- The L&S field office will review project limits and update planimetrics or perform other revisions as necessary.
- The L&S field office will submit all revisions/updates to Roadway Design Unit prior to or at the time of the Final Design Field Inspection/Combined Field Inspection Meeting, by electronic files.
- The L&S field office will inform all parties of revisions during the Final Design Field Inspection/Combined Field Inspection Meeting. RDU will revise plans as necessary to reflect those changes, and provide updated plans for the submittal of Final ROW plans with authorization.

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II Authorization to Purchase Right of Way

- Upon receiving authorization to acquire right of way from the Board of Transportation, The Right Of Way (ROW) Branch will request that L&S stake the proposed right of way and easements. This policy and procedure did not change.
- Following the staking of right of way and easements, the L&S field office will prepare and transmit a set of red-lined plans to the RDU Project Engineer and Division ROW Agent. The red-lined plans will include, but is not limited to, any right of way revisions and any station/offset computed during RW staking phase. RDU will revise the right of way plans in accordance with the staking plans and will submit new plans as a right of way revision. This is a new procedure. (The right of way revision request for the staking plans will not be initiated by the ROW Branch).

III Property Revisions following Authorization to Acquire Right of Way

- Any revisions after Authorization to Stake Right Of Way (other than those listed in II above) will be initiated by the ROW Branch by way of a request letter to the State Negotiator. L&S Central Office and RDU will be copied.
- Text revisions (name changes) will be handled by RDU. Field revisions that include changes to property lines will be handled by L&S, with L&S field office receiving assignment to proceed (Division ROW Agent may have previously discussed this with the L&S field office).
- Any field revisions with property line or right of way limit changes will be submitted to RDU electronically, with red-lined copy going to the Division ROW Agent.
- RDU will make requested changes prior to the distribution of the Pre-Let Field Inspection plans. All requests for revisions to right of way plans shall be processed in a timely manner.

IV Final/Pre-Let Field Inspection Plans/Meeting

- All revisions and updates received at this point will be reflected in the Pre-Let (Final) Field Inspection Meeting.
- All issues addressed during Pre-Let (Final) Field Inspection Meeting involving additional surveys/revisions will be initiated by the ROW Branch by way of a request letter as noted in the procedure above.

V RW Verification

- RDU will make any final revisions as requested by ROW agent (IV above) prior to the plan submittal to the Plans Checking Unit. All plan changes shall be complete 15 weeks prior to the let date (19 weeks for a project with an 8-week advertisement). Otherwise, the request will be processed as a right of way revision on a let project.
- L&S central office will be notified by RDU that Final Plans are complete and that the plan checking phase has been initiated (email to Unit Head is sufficient). L&S field office will receive assignment to begin ROW Verification per current procedures.
- L&S field office will obtain the electronic design plans from roadway server. No hard copy will be transmitted.

- L&S will verify placement of right of way monuments on the ground as per final plans.
- The ROW Branch will record final plans immediately prior to project let, as per standard procedure.

VI Let Activities

- Any right of way revisions made following let will be made as a right of revisions for a let project. All three Units (L&S, RDU, and ROW) will be notified by way of a plan revision.
- RDU will retain responsibility for plan sheet/file revisions.
- The ROW Branch will retain responsibility for recordation of revisions as necessary.
- L&S will have responsibility for re-staking any revised right of way, either in-house or through coordination with the Resident Engineer's office in charge of the project.

These are to be standard procedures for revisions to right of way plans. However, exceptions may occur. Any exceptions should be minimal and should be addressed in the most expedient manner, with communication to the Division Engineer's staff (Division Construction Engineer), L&S, RDU and ROW.

Thank you for your compliance in this issue.

JAB: JJ; CWB

cc: Ms. D. M. Barbour, PE
Mr. A. D. Allison
Mr. Art McMillan, PE

Joy - Call me when you get an opportunity - Charlie

(3)

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

July 23, 2008

To: Mr. A. D. Allison, II
Manager, Right of Way Branch

Mr. J. Robert Memory
State Utility Agent

Mr. Ellis Powell, Jr., PE
State Construction Engineer

From: Charles W. Brown, PE, PLS
State Location & Surveys Engineer

Subject: Monumentation of Permanent Easements

In order to better preserve and protect NCDOT's permanent easements (Drainage and Utility primarily), the Location & Surveys Unit will be placing iron pins and caps at the corners of those, as we do on the changes of direction on the rights of way. The cap to be used is smaller than the NCDOT right of way cap. The text "NC DEPT OF TRANS PERMANENT EASEMENT DO NOT DISTURB" is placed around the monument circumference. A sketch is attached.

Thank you for your time and attention. If you have questions or comments, please do not hesitate to contact me at 919-250-4109.

CWB

Cc: Mr. Jon Nance, PE
Ms. Debbie Barbour, PE
Mr. Art McWilliam, PE
L&S Area Engineers

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LOCATION & SURVEYS UNIT
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Perm Ease Announce.doc

Product Information

Please enter the text you would like printed in the text boxes provided below:

Outside Row

Total of 36 characters and spaces.

Centered at 12 o'clock: NC DEPT OF TRANS

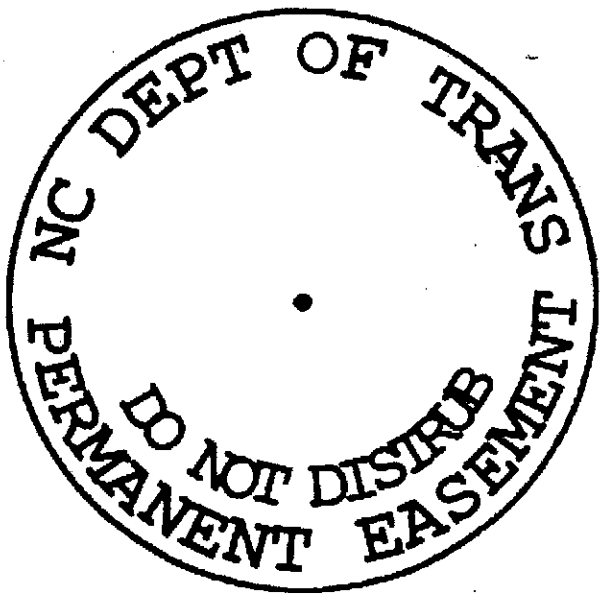
Centered at 6 o'clock: PERMANENT EASEMEN

Inside Row

Total of 40 characters and spaces.

Centered at 12 o'clock:

Centered at 6 o'clock: DO NOT DISTRUB



Please select the center mark for this cap:

None

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1-800-356-7388 . FAX 1-800-249-9794 . surveymark@berntsen.com

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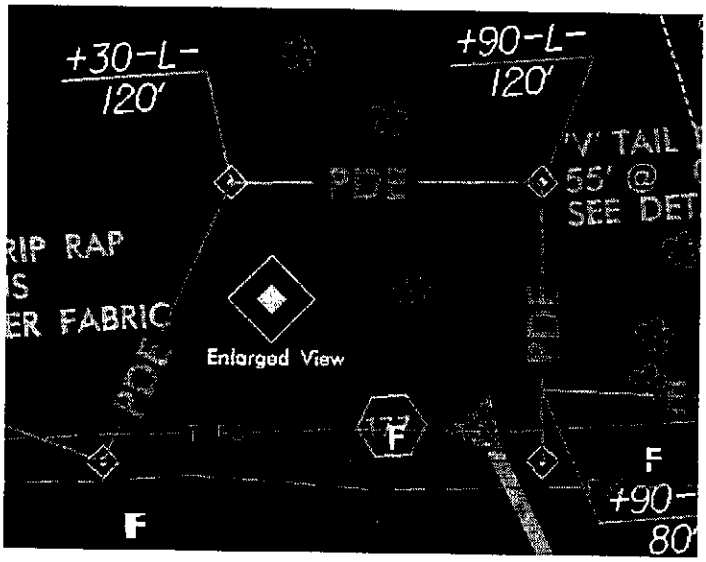
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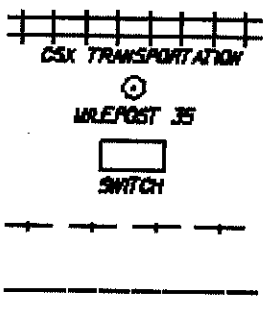
Standard Gauge

RR Signal Milepost

Switch

RR Abandoned

RR Dismantled



RIGHT OF WAY:

Baseline Control Point

Existing Right of Way Marker

Existing Right of Way Line

Proposed Right of Way Line

Proposed Right of Way Line with Iron Pin and Cap Marker

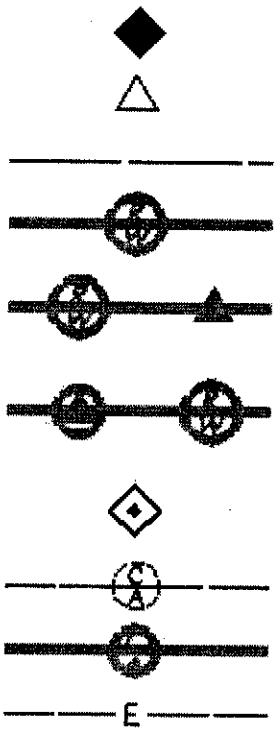
Proposed Right of Way Line with Concrete or Granite Marker

Proposed Permanent Easement with Iron Pin and Cap Marker

Existing Control of Access

Proposed Control of Access

Existing Easement Line



ROADWAY DESIGN UNIT

NOV 1 9 2008

__ALLEN __BLEVINS __SYKES
__BREW __C. HOUSER __T. HOUSER
__LOVERING __D. TAYLOR __GOODWIGHT
__J. MOORE __C. HAIRE __SPEER
__B. MOORE __THOMAS
__MUMFORD __WELLS
__STEPHENSON

__PREPARE REPLY FOR __SIGNATURE
__F.Y.I.
__REVIEW/DISCUSS WITH _____

HIGHWAY DESIGN BRANCH

4

NOV 1 4 2008

__Rdy __Hyd __Staff
__Str __L&S __Exe
__Geo __Photo __Sec.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

UTILITIES COORDINATION UNIT
1591 MAIL SERVICE CENTER RALEIGH N C 27699-1591
PHONE (919) 250-4128 FAX (919) 250-4151

LYNDO TIPPETT
__FYI SECRETARY
__Take appropriate Action
__Prepare reply for

November 6, 2008

MEMO TO: Art McMillan, PE
Greg Thorpe, PhD
Jay, Bennett, PE
Tommy Cozart, PE
Robert Memory

FROM: Deborah Barbour, PE
Director of Preconstruction

Jon Nance, PE
Directory of Field Operations

SUBJECT: **Establishing Permanent Utility Easements (PUEs)**

The purpose of this memo is to serve as updated technical guidance regarding the identification of potential utility easements (PUEs). Please implement the four action items immediately on all TIP Projects.

1. **During the identification and analysis of project alternatives, the Utility Unit will begin evaluating the alternatives for potential utility easements (PUEs). The Utility Unit will work with the Roadway Project Engineer to ensure that potential utility easements are shown on public hearing maps.**

2. **The Utilities Unit will utilize 25% plans to investigate, identify and isolate potential utility conflicts within the project limits. This information will be used to better define the utility easements (PUEs) to be shown left or right of the –L- and/or –Y- lines.**

3. **The final design of the PUEs will be determined based on the clear zone limits, which will be determined by the Roadway Project Engineer. The alignment for the PUEs will be finalized after the final design field inspection but prior to Right of Way Authorization. The Roadway Design Engineer will depict the PUEs on the final plans. If applicable the PUEs will be placed outside the project clear zone limits.**

4. **As part of the acceleration process for relocating conflicting utilities, the Utilities Unit will identify the parcels that need to be purchased during the early stages of the right of way acquisition and will work with the Right of Way Branch, so they can proceed with securing the parcels.**

Please note the following:

Depending on the time needed to acquire the PUEs and the estimated time it will take to relocate the conflicting utilities, additional time beyond standard Right of Way acquisition time, might be requested by the Utilities Coordination Unit to clear conflicts prior to the project availability date. On the majority of TIP Projects, ample time should be available for securing the PUEs to relocate the conflicting utilities during the right of way acquisition phase of the project.

Depending on additional revisions to the roadway plans and the complexity of the project, additional time might be needed between the Final Field Inspection and Right of Way Authorization to finalize the alignment of the utility easements (PUEs). The Utilities Coordination Unit will make the request for additional time to the Roadway Project Engineer.

In most cases the requested PUEs will be a width of fifteen feet (15') to accommodate the back of the overhang (outside conductor) for a 12.4 KV power distribution line. Depending on the width of the clear zone to the edge of the travel lane, the poles could potentially be placed inside the highway right of way to reduce the width of the requested PUEs or eliminate the need for the PUEs. The department will make all efforts to accommodate the relocated utilities within the highway right of way to reduce the impacts on the adjoining properties. Also, the Roadway Design Engineer should strive to place the PUEs as straight as possible and parallel with the project alignment. By reducing the angles/turns within the PUEs, the number guys needed to stabilize the utility poles will be reduced. The Roadway Design Engineer should also avoid parallel alignments that would leave any separation between the highway right of way line and the PUEs. In other words, the existing right of way or proposed right of way line should serve as the inner boundary of the PUEs.

As with any highway project, it may not be feasible to place the poles outside the clear zone. Urban development, terrain, environmental impacts, historical property, structural conflicts, and cost for right of way and/or relocation cost may affect the feasibility of relocating utilities outside the determined clear zone. The final decision to leave or relocate overhead facilities within the clear zone will be the responsibility of the Roadway Project Engineer.

The decision to bury existing overhead facilities within the clear zone will be a joint decision among the Utilities Unit, Division Engineer, the Roadway Design Engineer and the cost review committee. Historically, the cost to bury existing overhead utilities has greatly increased utility relocation cost on TIP Projects.

By working together, we hope the four action items will reduce utility delays and construction cost by minimizing the risk of utility conflicts prior to the project availability date.

If you have any questions, please contact Mr. Robert Memory at (919) 250-4128.

DB/ JN/rm

Cc: Bill Rosser, PE
Steve Varnedoe, PE
Kevin Lacy, PE
Division Engineers
Division Right of Way Agents
Roadway Design Project Engineers
Michael Dawson
Rodger Worthington, PE
O'Hara Parker
A. D. Allison, II
David M. Bailey
Judy Joines
Neal Strickland

(4)

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

MEMO TO: Art McMillan, PE, Jay Bennett, PE, Robert Memory and Tommy Cosart, PE

DOUG ALLISON, JR

FROM: Deborah Barbour, PE
Director of Preconstruction

DATE: October 14, 2008

DRAFT

Utility Pole Placement

The purpose of this memo is to serve as updated technical guidance regarding the placement of utility poles along TIP projects. As noted in the 2002 AASHTO Roadside Design Guide, motor vehicle crashes with utility poles account for approximately 10% of all fixed object crashes. It is therefore prudent to put utilities underground or place utility poles as far away from the roadway edge as is feasible.

All new or relocated utility poles should be placed at or beyond the clear zone as defined by the 2002 AASHTO Roadside Design Guide or the most current edition. The clear zone and recovery area should be considered when setting proposed R/W. The following are typical applications of these guidelines when setting proposed R/W, Permanent Utility Easements (PUE) and placing utility poles:

Projects with Full Control of Access
Proposed R/W and the Control of Access should be set at a dimension that encompasses the project footprint, lateral drainage features and encompasses/protects the clear zone. All new or relocated utility poles shall be placed outside the proposed R/W and Controlled Access.

Shoulder Section
Proposed R/W should be set at a dimension that generally encompasses the project footprint, lateral drainage features and encompasses/protects the clear zone. All new or relocated utility poles shall be placed at or just outside the proposed R/W and therefore outside the clear zone. A 15 foot PUE may be provided beyond the proposed R/W along one side to encompass the utility poles.

Multilane Curb and Gutter section
Proposed R/W should be set at a dimension that generally encompasses the construction footprint, lateral drainage features and encompasses/protects the clear zone. Regarding the customary 4 lane divided roadway with a 23 foot median and posted at 45 mph, the proposed

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DRAFT

R/W width should be 125 feet wide. All utility poles shall be placed at or just outside this R/W and therefore outside the clear zone. A 15 foot PUE may be provided beyond the proposed R/W along one side to encompass the utility poles.

Due to project and area specific constraints as well as costs, it may not always be prudent to purchase 125 feet of R/W, a 15 foot PUE and relocate utility poles accordingly. Nonetheless during the planning stages for TIP projects, consideration should be given to do so. It is noted that a TIP project may be limited to a relatively short section of a highway and therefore the benefit of utility pole relocation may be similarly constrained.

Please note that traffic signal poles (specifically metal mast arm poles) need not be treated as utility poles. It is frequently neither feasible nor justifiable due to span length and cost to place them beyond the desired clear zone. However, wooden signal poles and metal strain poles often can and should be placed beyond the clear zone.

All new or relocated utility poles should be placed at or beyond the clear zone as defined by the 2002 AASHTO Roadside Design Guide or the most current edition. Any new or relocated utility pole placed within 12 feet of the roadway edge shall be breakaway. Any new or relocated utility pole placed within the clear zone but beyond 12 feet from the roadway edge shall require an exception to be approved by the State Highway Design Engineer or Division Engineer as appropriate. Attached is an exception form.

Please begin using these guidelines immediately on all TIP Projects. If you have any questions, please contact me or Dewayne Sykes at (919) 250-4016.

DMB/dls

Attachments

cc: Bill Rosser, PE
Steve Varnedoe, PE
Victor Barbour, PE
Greg Thorpe, PhD
Division Engineers
Roadway Design Project Engineers
Roger Worthington, PE
Kevin Lacey, PE
Jon Nance, PE
A. D. Allison, Jr.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

4

MEMO TO: Art McMillan, PE (or Division Engineer)
State Highway Design Engineer

FROM: Jay A. Bennett, PE (or Requesting party)
State Roadway Design Engineer

DATE:

SUBJECT: Project: ( ) County
F.A. Project:

Request for Utility Pole Location Exception

This is a request for an exception for utility pole location. See attachment for pertinent information.

If you have any questions, please contact me or , Project Engineer.

Roadway Project Design Engineer	Engineering Coordinator OR Asst. State Roadway Engineer
Roadway Project Engineer	State Roadway Design Engineer
Consultant (if applicable)	

JAB/
Attachment
cc: , Project Engineer

APPROVED: _____

DATE: _____

cc: Jay A. Bennett, PE
, Project Engineer
w/Attachment (Regional Traffic Engineer)

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FAX: 919-250-4036

WEBSITE: WWW.NCDOT.ORG/DOH

LOCATION:
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1000 BIRCH RIDGE DRIVE
RALEIGH NC

NCDOT UTILITY POLE LOCATION EXCEPTION REQUEST
(Project does not require FHWA design approval)

F.A. Project No.: State Project No.:

TIP No.: County:

Location of Utility Pole/s in Question:

PROJECT DATA

Current ADT (Year): Design ADT (Year):

% Trucks: Design Speed: Posted Speed:

Functional Classification:

2002 AASHTO Roadside Design Guide Clear zone Dimensions:
Dimensions Proposed:
Supports a design speed of:

Total Estimated Cost of Project:

Additional Cost to Meet Minimum AASHTO Requirements:

BASIS FOR EXCEPTION

1. Describe how the accident history relates to the proposed exception. See current 3-year accident history, attached (number, type, rates, severity, cause, comparison to statewide average, etc.).

2. Describe any future plans for upgrading this roadway either at or in the vicinity of this project.

3. Describe the cross section, geometrics, access control, etc. of the existing roadway outside the project limits.

4. Explain why it is not reasonable or feasible to meet (engineering, environmental and/or ROW constraints) minimum AASHTO requirements.

5. Describe any measures proposed to mitigate this exception.

6. Describe the results of a cost benefit (RSAP) analysis.

LEGEND

4

- BUILDINGS
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- EXISTING ROADWAY TO BE RESURFACED
- PROPOSED ROADWAY
- TEMPORARY ROADWAY / DETOURS
- FUTURE ROADWAY
- PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
- FUTURE STRUCTURES, ISLAND, CURB AND GUTTER
- LAKES, RIVER, STREAMS, AND PONDS
- RAILROAD RIGHT OF WAY
- UTILITY EASEMENT EXISTING
- CEMETERIES
- PROPOSED CONTROL OF ACCESS
- PROPOSED PARTIAL CONTROL OF ACCESS
- EXISTING CONTROL OF ACCESS
- 0000 / 0000 PRESENT ADT / FUTURE ADT
- PROPERTY LINES
- NOISE WALL
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL
- HISTORIC PROPERTY
- – WLB – WETLAND LIMITS BOUNDARY
- – · · BZ – · · STREAM BUFFER ZONE

State Roadway Design Engineer
Roadway Design Unit
Century Center - Building A

(4)

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

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MUMFORD
SYKES
ALLEN
GOODNIGHT
SPEER
THOMAS
WALLS
POLLARD
PREPARE REPLY FOR SIGNATURE
REVIEW/DISCUSS WITH

MEMO TO: Jay Bennett, PE and Victor Barbour, PE

FROM: Debbie Barbour, PE
Director of Preconstruction

DATE: December 10, 2003

SUBJECT: Utility Pole Placement

As previously coordinated with staff from your office, Operations, and the Right of Way Utilities Section, the purpose of this letter is to serve as a guide for the placement of utility poles along TIP projects. As noted in the *2002 Roadside Design Guide*, motor vehicle crashes with utility poles account for approximately 10 percent of all fixed object fatal crashes. Therefore, it is imperative that the utility poles be placed as far away from the proposed roadway edge of travel lane as feasibly possible. The following guidelines should be used when placing utility poles:

Shoulder Sections

All utility poles shall be placed outside the Clear Zone as defined by the *2002 Roadside Design Guide*.

Curb and Gutter Sections posted greater than 45 MPH

All utility poles shall be placed outside the Clear Zone as defined by the *2002 Roadside Design Guide*

Curb and Gutter Sections posted 45 MPH or less

All utility poles shall be placed outside the Clear Zone as defined by the *2002 Roadside Design Guide* where practicable. If this cannot be achieved due to right of way restraints, the utility pole may be placed a minimum of 12 feet from the face of the curb. All utility poles that are placed closer than 12 feet shall be breakaway poles. (See Attached Detail.)

During the planning stages for a project that will have curb and gutter, consideration should be given to purchasing additional right of way to accommodate for the placement of utility poles.

Please begin using these guidelines effective immediately on all TIP projects. If you have any questions, please contact me or Art McMillan.

Attachment
cc w/attachment: Len Sanderson, PE
Steve Varnedoe, PE
Steve DeWitt, PE
Tommy Cozart, PE
Aydren Flowers
Art McMillan, PE

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION SECTION
1541 MAIL SERVICE CENTER
RALEIGH NC 27699-1541

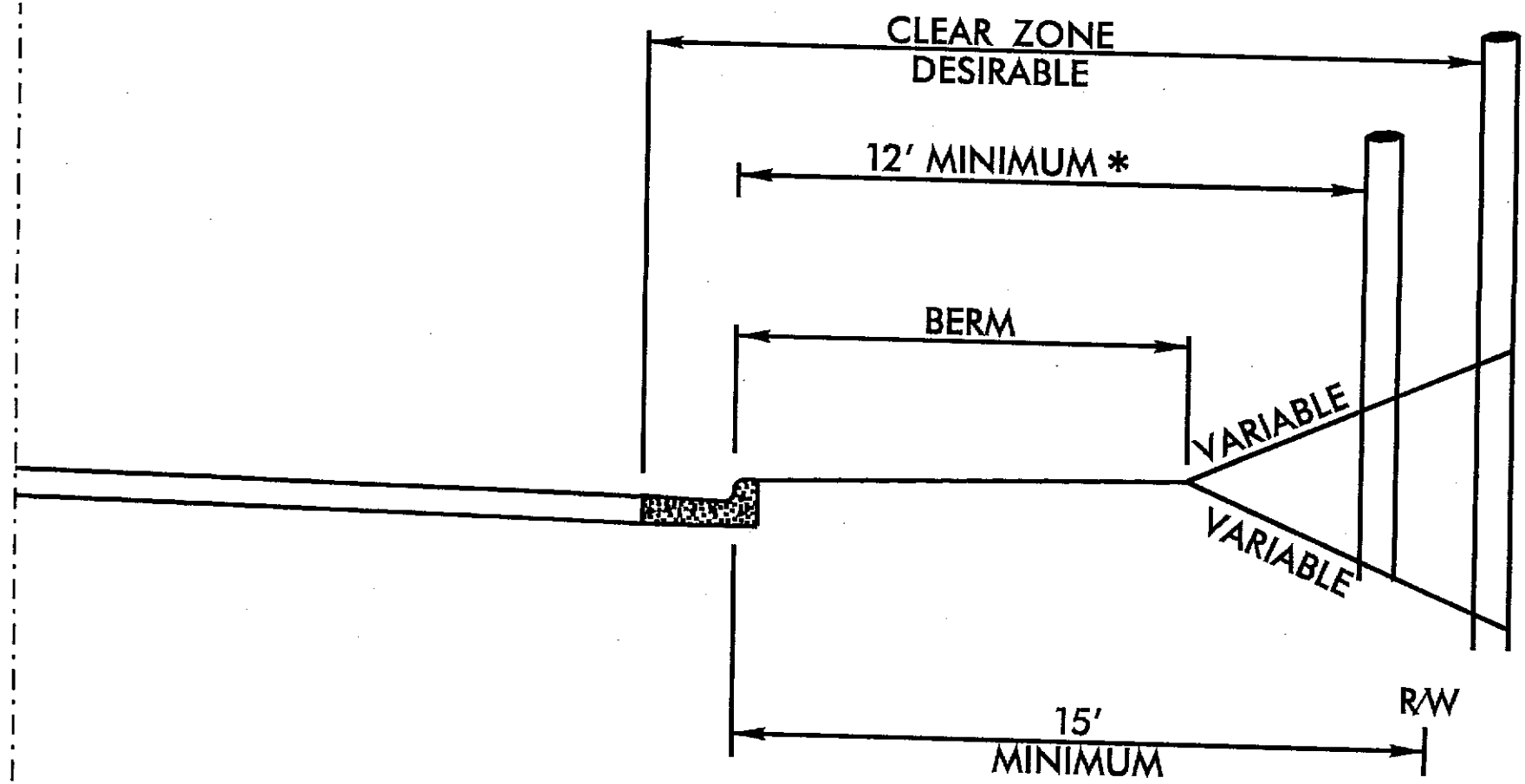
TELEPHONE: 919-733-9425
FAX: 919-733-9428

WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH NC

DETAIL FOR PLACEMENT OF UTILITY POLES IN CURB AND GUTTER SECTIONS POSTED 45 MPH OR LESS

DRAFT



* UTILITY POLES PLACED CLOSER THAN 12 FEET SHALL BE BREAKAWAY POLES

(5)

Project Schedule for Fall 2008 Roadway Tour

Day 1

Project: **U-2524AB & U-2524AC**
Description: Greensboro Western Loop form North of I-85 to Wendover Ave.
Resident Engineer: Chris Kirkman
Contractor: Archer Western Contractors, LTD.
Bid Amount: $116 million
Work began: February 4, 2004
Current Progress: Complete
Completion date: July 3, 2008
Liquidated Damages Assessed: $1,996,000.00
Points of Interest: The loop onto Bus. I-85 North has had safety improvements added since the completion of the project. We will look at those as well as look at the existing issue and potential hazards.

Project: **R-2606A, R-6091A, & R-6091B**
Description: US-311 from US-29 & 70 to North of SR-1929 (Future I-74).
Resident Engineer: Brian Smith
Contractor: Blythe Const., Inc.
Bid Amount: $104 million
Work began: May 31, 2007
Current Progress: 48.7%
Completion date (Contract): May 15, 2011
Liquidated Damages: $10,000 per day
Points of Interest: The contractor will be using tire chips in the embankment fill. This project may be a test for stabilizing sub-grade during winter months. There are also some issues tying into the concrete paving on I-85.

Project: **I-2808A**
Description: Design-Build; I-77 from SR-1125 in Yadkin Co. to US-21
Resident Engineer: Jami Guynn
Contractor: Lane Construction Corp.
Bid Amount: $59 million
Work began: February 5, 2007
Current Progress: 82.5%
Completion date (Contract): June 30, 2009
Liquidated Damages: $5,000 per day
Points of Interest: The contractor is planning to close the NB bridge over US 421 on 9-4-08 and begin bridge jacking on 9-8-08. The SB lanes have been diamond ground. At this time the contractor will begin preparing to concrete overlay the loops. The overlay and bridge work should be completed prior to the roadway tour. Work at the time of the tour may be paving shoulders, striping and preparing to re-open the NB lanes on 10-01-08.

Project: **K-4703**
Description: Rest Area on US-421 in Wilkes Co.
Resident Engineer: David Poindexter
Contractor: James R. Vannoy & Sons Const. Co., Inc.
Bid Amount: $10 million
Work began: January 9, 2008
Current Progress: 50.8%
Completion date (Contract): September 15, 2009
Liquidated Damages: $1,500 per day
Points of Interest: This project is being constructed to meet the LEED (Leadership in Energy and Environmental Design) gold certification. This certification is being achieved by using solar energy, geothermal heating and air conditioning, and several other "green" technologies. The contractor is continuing construction of the building (laying block) and this may be complete by the time of the tour; however, other building activities will be going on. Some paving has been completed and may be ongoing at the time as well.

Project: **R-2237B**
Description: US-321 from SR-1370 to SR-1500 in Caldwell Co.
Resident Engineer: Frank Gioscio, PE
Contractor: W.C. English, Inc.
Bid Amount: $63 million
Work began: February 2, 2005
Current Progress: 75.7%
Completion date (Contract): August 15, 2008
Liquidated Damages: $4,000 per day
Points of Interest: This contractor is continuing to grade in a large cut on the North end of the project. In the next several days they plan to install a temporary rockfall control fence on the South end and begin grading a cut there. Some other items to review are the difficulty for the contractor to find waste sites, and pipe issues.

Day 2

Project: **R-2518A & R-2518B**
Description: US-19 from I-26 in Madison Co. to SR-1336 in Yancey Co.
Resident Engineer: Randy McKinney, PE
Contractor: Taylor & Murphy, Inc.& Young & McQueen
Bid Amount: $108 million
Work began: September 2, 2008
Current Progress: 0.0%
Completion date (Contract): October 15, 2012
Liquidated Damages: $4,000 per day
Points of Interest: Work has just begun with installation of work zone signs, clearing & grubbing, and installation of erosion control measures. Roadside Environmental personnel will be on-site to discuss the environmental issues including the Japanese Knotweed (*Polygonum cuspidatum*).

Project: **R-2813B**
Description: Design-Build; NC-146 from West of SR-3501 to East of I-26.
Resident Engineer: Cole Hood, PE
Contractor: Wright Bros. Construction Co., Inc.
Bid Amount: $54 million
Work began: April 30, 2007
Current Progress: 31.0%
Completion date (Contract): October 10, 2010
Liquidated Damages: $2,800 per day
Points of Interest: This is an urban widening with a single point interchange @ I-26. Off-site construction has turned water through two 36" pipes onto R/W at the toe of a MSE wall.

Project: **I-5005A**
Description: I-26 from MM 37.1 to MM 50.3
Resident Engineer: Keith Brazell
Contractor: APAC-Atlantic, Inc.
Bid Amount: $20 million
Work began: May 27, 2008
Current Progress: 14.8%
Completion date (Contract): October 1, 2009
Liquidated Damages: $1,500 per day
Points of Interest: Night work removing and replacing concrete slabs using high-early strength concrete. The contractor is limited by the contract to making concrete slab repairs and placing traffic on the slabs by 6 a.m. every day. There are many issues with the specified mix of 400 flexural psi in 4 hours. The limited time of workability and concerns about strength gain during cold weather pours are two of the biggest concerns of the contractor.

Day 3

Project: **I-5003**
Description: I-40 from MM 119 in Burke Co. to MM 146 in Iredell Co.
Resident Engineer: Anne Schley
Contractor: Maymead, Inc.
Bid Amount: $28 million
Work began: April 28, 2008
Current Progress: 12.2%
Completion date (Contract): June 30, 2010
Liquidated Damages: $2,000 per day
Points of Interest: Concrete slab removal and replacement with asphalt, then placing nova chip on the jointed concrete section. Asphalt paving over the continuously reinforced concrete.

Project: **I-4411**
Description: Intersection of I-77 and SR-1102(Langtree Rd.)
Resident Engineer: John Cook
Contractor: REA Contracting, LLC
Bid Amount: $21 million
Work began: March 5, 2007
Current Progress: 62.2%
Completion date (Contract): July 15, 2009
Liquidated Damages: $2,000 per day
Points of Interest: Adding a new interchange on I-77 and constructing roundabouts.

Project: **R-2248D**
Description: I-485 from East of SR-2042 to East of NC-115
Resident Engineer: Rick Baucom
Contractor: Skanska USA Civil Southeast, Inc.
Bid Amount: $94 million
Work began: January 13, 2004
Current Progress: 95.3%
Completion date (Contract): December 31, 2007
Liquidated Damages: $10,000 per day
Points of Interest: The contractor will be possibly paving, installing guardrail and ITS items, and concrete paving. Also, we will be reviewing a pipe failure using Method B construction due to a plan error.

(6)

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

MEMO TO: Roadway Design Project Engineers

FROM: Jay A. Bennett, PE
State Roadway Design Engineer

DATE: October 21, 2008

SUBJECT: Concrete Transitional Section for Catch Basins and Drop Inlets

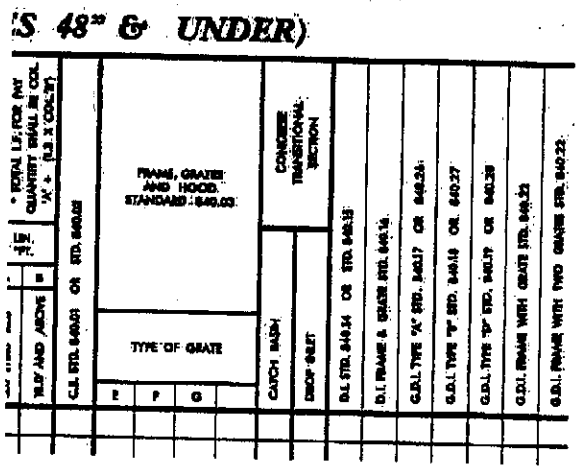
Beginning with the **January 20, 2009 Letting,** two additional pay items have been added to Transport:

Concrete Transitional Section for Catch Basins – Per Each
Concrete Transitional Section for Drop Inlets – Per Each.

The Drainage Summary Sheets in the cell library have been modified to reflect the changes. Please begin using the new Drainage Summary Sheets with the January 20, 2009 Letting.

For additional information on the Concrete Transitional Section see Randy Garris's memo dated August 26, 2008 located on the Roadway webpage at:
http://ncdot.gov/doh/preconstruct/highway/roadway/policymemos/Design/concretetransition.pdf

If you have any additional question, please call Jay A. Bennett, PE at (919) 250-4016.



JAB/tw
Attachments
cc: Dewayne Sykes, PE
Scott Blevins, PE
Randy Garris, PE
Cynthia Perry, PE

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BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR

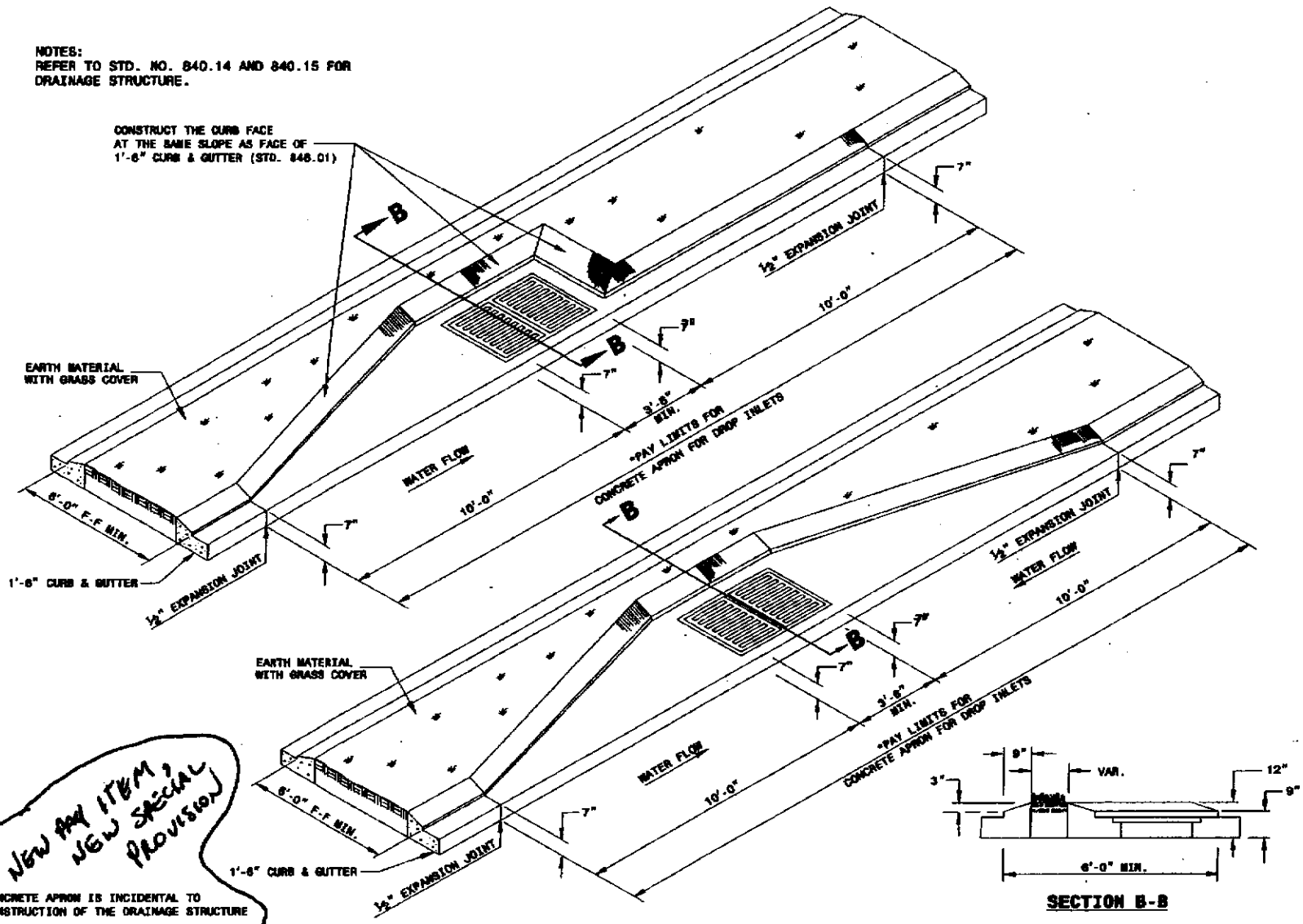
METHOD FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN

(USING 1'-6" CURB & GUTTER)

SHEET 1 OF 1

852.04

NOTES:
REFER TO STD. NO. 840.14 AND 840.15 FOR DRAINAGE STRUCTURE.



SECTION B-B

NEW ANY ITEM, NEW SPECIAL PROVISION

*CONCRETE APRON IS INCIDENTAL TO CONSTRUCTION OF THE DRAINAGE STRUCTURE

NOW: PER EACH, CONCRETE TRANSITIONAL SECTION FOR DROP INLETS

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR

METHOD FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN

(USING 1'-6" CURB & GUTTER)

SHEET 1 OF 1

852.04

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-08

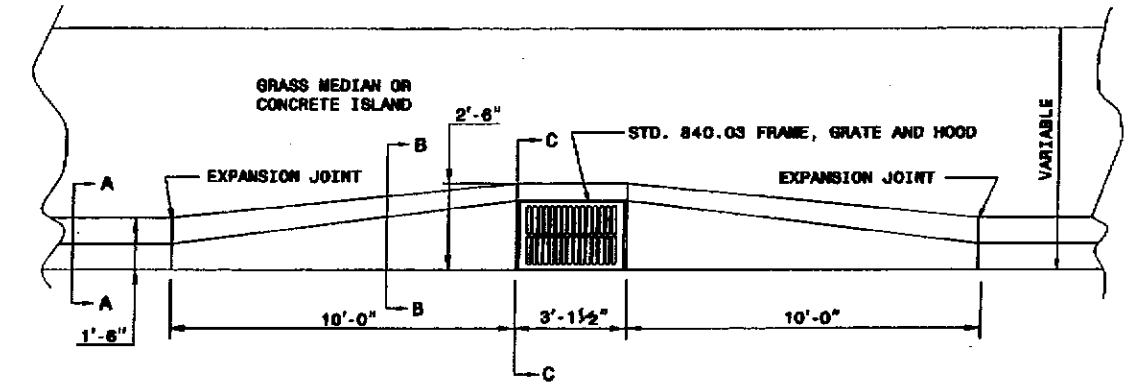
ENGLISH STANDARD DRAWING FOR

MEDIAN CURB FOR CATCH BASIN

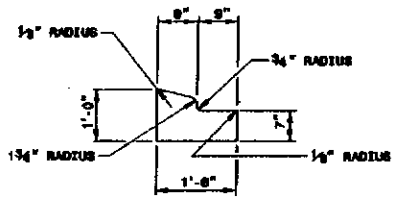
(FOR USE WITH 1'-6" CURB AND GUTTER)

SHEET 1 OF 1

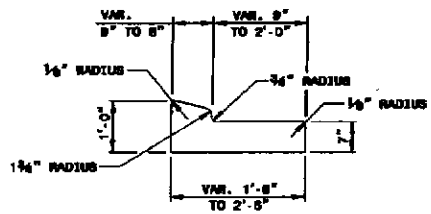
852.05



PLAN



SECTION - AA



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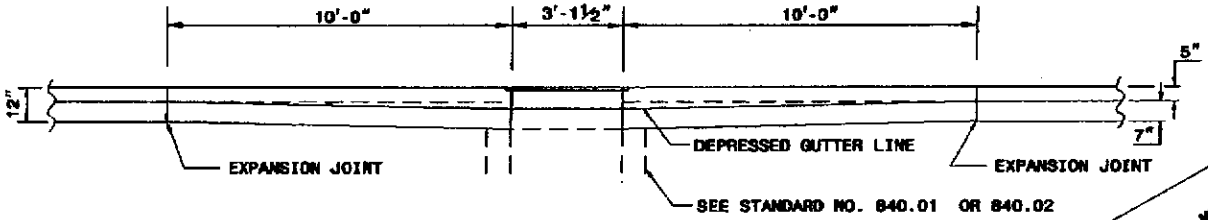
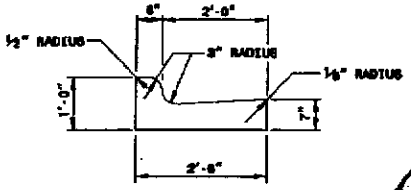


ELEVATION



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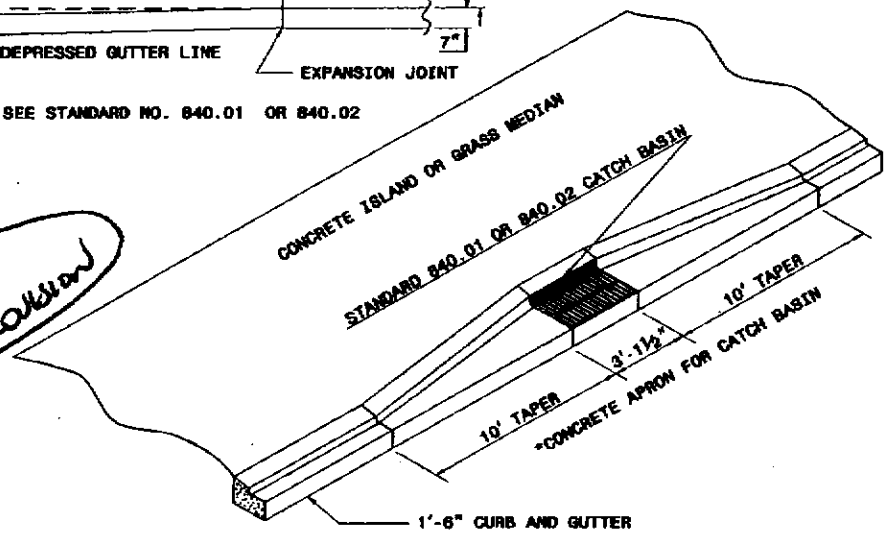

*CONCRETE APRON IS INCIDENTAL TO CONSTRUCTION OF THE DRAINAGE STRUCTURE

NEW PAY ITEM, NEW SPECIAL PROVISION

NOW: PER EACH, CONCRETE TRANSITIONAL SECTION FOR CATCH BASINS

STATE OF
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-08

ENGLISH STANDARD DRAWING FOR

MEDIAN CURB FOR CATCH BASIN

(FOR USE WITH 1'-6" CURB AND GUTTER)

SHEET 1 OF 1

852.05

STATE OF
NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

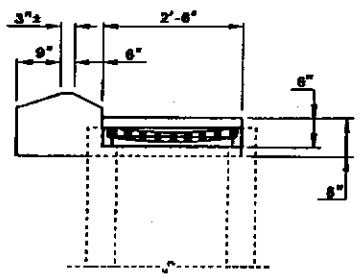
7-06

ENGLISH STANDARD DRAWING FOR

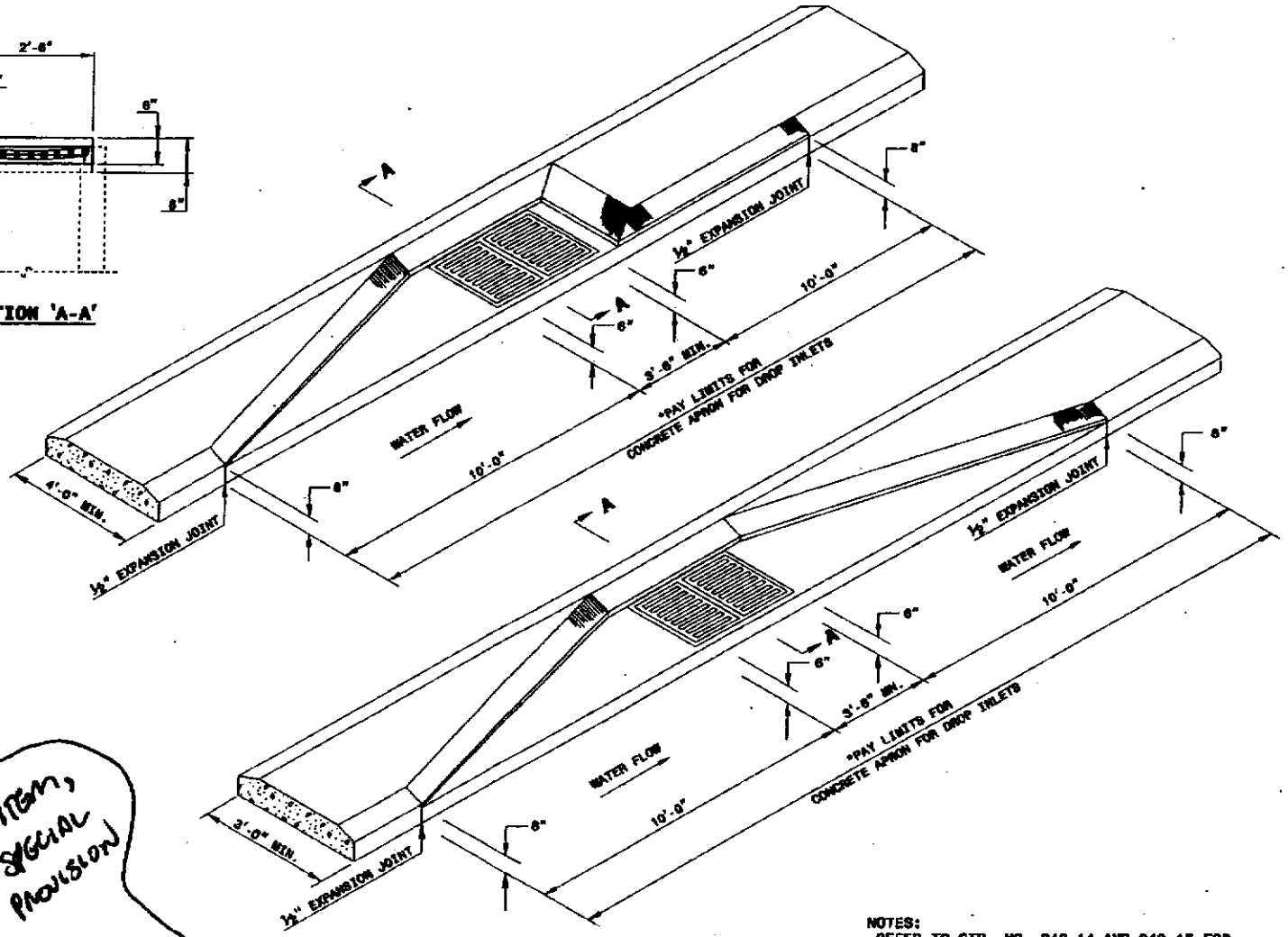
METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS

SHEET 1 OF 1

852.06



SECTION 'A-A'



NOTES:
-REFER TO STD. NO. 840.14 AND 840.15 FOR DRAINAGE STRUCTURE.
-REFER TO STD. NO. 840.16 FOR GRATE AND FRAME.

NEW PAY ITEM, NEW SPECIAL PROVISION

*CONCRETE APRON IS INCIDENTAL TO CONSTRUCTION OF THE DRAINAGE STRUCTURE

NOW: PER EACH, CONCRETE TRANSITIONAL SECTION FOR DROP INLETS

STATE OF
NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR

METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS

SHEET 1 OF 1

852.06