



NORTH CAROLINA

Department of Transportation



Pedestrians in NCDOT Work Zones: Project Requirements & Project Team Roles

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Ken Thornewell, Jr. PE, PTOE, Central/Interim Eastern Work Zone Engineer (Div. 1-9)

Moderator:

Don Parker, PE, Western Work Zone Engineer (Div. 10-14)/Interim State WZ Engineer

July 27, 2020

Welcome

- This webinar will be approximately 90 minutes in length
- Type your questions in the meeting chat
- We will answer as many questions as possible after presentations, time permitting
- This webinar is being recorded and will be posted, along with the presentation slides, to the NCDOT Connect Work Zone Traffic Control website
- 1.5 PDHs are available for this webinar and you will receive a follow up email with further instructions

Topics We Will Cover Today


- Overview of Chief Engineer's Temporary Pedestrian Accommodation Directive
- Project Development Team Roles
- How to Determine Level of Pedestrian Accommodation
- Site Visits
- Examples of Best Practices for TMP Designers
- How and When to Use Work Zone Pedestrian Special Provisions

Disclaimer of Endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the North Carolina Department of Transportation (NCDOT). The views and opinions of authors expressed herein do not necessarily state or reflect those of the NCDOT, and shall not be used for advertising or product endorsement purposes.

Pedestrian Accommodations Directive

- Signed by Tim Little in July 2018
- Became effective immediately for projects in all phases of development and construction.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

July 25, 2018

MEMORANDUM

To: Division Engineers
Project Management Unit

From: Tim Little, PE, Chief Engineer

Subject: Revised Guidelines for Temporary Pedestrian Accommodation in Work Zones

NCDOT is committed to safety in all aspects of our transportation program. In addition to worker and motorist safety, we must remember pedestrians and cyclists are users of our facilities as well. Of particular importance, we need to be mindful of access and safety for pedestrians and cyclists during the construction and maintenance of our roadways.

After careful review of the Guidelines for Temporary Pedestrian Accommodation in Work Zones, changes have been made that will help ensure planners and engineers will be able to better meet the needs of these users. We initiated a working group made up of the Work Zone Traffic Control, Community Studies, ADA, Bicycle and Pedestrian, Safety and Traffic Management Sections to ensure the policies are kept up to date and provide guidance during the planning, design, construction and maintenance of our transportation program. Some of the updates to this policy include requirements for understanding pedestrian volumes and determining ways to better serve those with disabilities. The revised guidelines can be found at: <https://connect.ncdot.gov/projects/WZTC/Pages/PedSafety.aspx>.

In addition, the Communications Office has developed a training video titled "Pedestrian Work Zone Accommodations Training" that will assist everyone in understanding how to implement the guidelines and better maintain pedestrian access during construction and maintenance activities. I encourage everyone to review and become familiar with the information provided in the video. The video is located at:

Pedestrian Accommodations Directive

- Governs the level of accommodation for Pedestrian Traffic in Work Zones based on Pedestrian Volumes.
- Requires that active pedestrian movements be maintained throughout construction.
- Requires the use of ADA compliant traffic control devices along the sidewalk.



Project Development Team Roles

Community Studies

- Conduct site visits
- Document the presence, nature, and volume of pedestrian activity, as described by the Community Impact Assessment guidelines

STIP B-5895 Madison County COMMUNITY IMPACT ASSESSMENT		
EXECUTIVE SUMMARY		
BRIDGE NO:	No. 67	
OVER:	French Broad / Silver Mine Road	
ROUTE:	US 25 / US 70	
WBS:	48088.1.1	
EXISTING NO LANES:	2	
EXISTING LENGTH:	Approximate	
ADT:	2,800 (in 2010)	
<i>(Note: Closest Available Detour Route not studied)</i>		
PROJECT PLANNING ENGINEER:	Beth Smythe	
FIRM PROJECT MANAGER:	Darren Everette	
CS PROJECT MANAGER:	Herman Hu	
DATE:	July 14, 2016	
CS APPROVAL BY:		
Community Context		
<p>STIP Project B-5895 is located in the French Broad River and Silver Mine Road on Madison County Community Impact Area (DBIA). From 2000 to 2010, the population of the DBIA declined by -7.6 percent. This is an overall decrease of -7.6 percent. The DBIA includes several private homes (northwest bridge quadrant) and an outcrop of land.</p>		
Notable Characteristics		
<ul style="list-style-type: none"> • Census data indicates a notable population decline in the Demographic Study Area (DSA), Direct Community Impact Area (DCIA) and Direct Bridge Impact Area (DBIA). • Census data does not indicate Linn County is near the LEP Safe Harbor threshold or a near-threshold area. • Hikers on the Appalachian Trail use the trail within North Carolina. • There are no existing sidewalks or bicycle facilities located along the north side of US 25 / US 70 to the French Broad River. • Private access points are located along the north side of US 25 / US 70. • The Town of Hot Springs is a resort town with Tourism related businesses are located in the northwest quadrant and an outcrop of the North Carolina. • The US 25 / US 70 bridge is the primary route for EMS providers. • Local school staff noted that 7 bus trips made per day. • The French Broad River provides scenic views. 		
STIP B-5895 - Madison County - COMMUNITY IMPACT ASSESSMENT - July, 2016 - page 5		
NOTABLE POPULATION GROWTH OR DECLINE	<p>Has the Demographic Study Area experienced notable population growth or decline in recent years? If the average annualized Demographic Study Area population growth is higher than 1.5%, note the growth in the county and how it compares.</p> <p><input type="checkbox"/> Decline <input type="checkbox"/> Greater than 1.5% annual growth (in DSA)</p> <p>From 2000 to 2010, the population of the DSA declined from 1,494 to 1,380. This is an overall decrease of -7.6 percent or an annualized loss of -0.8 percent.</p>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Demographic Study Area
DEVELOPMENT ACTIVITY	<p>Has recent development activity occurred in the Direct Bridge Impact Area and Direct Community Impact Area and/or are there known plans for public or private development activity in the Direct Bridge Impact Area and Direct Community Impact Area?</p>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Direct Bridge Impact Area <input type="checkbox"/> Direct Community Impact Area
LOCAL AREA PLANS/GOALS	<p>Are there any local area plans, goals, or zoning initiatives specifically affecting the Direct Bridge Impact Area and Direct Community Impact Area (e.g. bicycle, pedestrian, greenway, or transit plan; small area plan; long-range growth plan; thoroughfare plan; etc.)?</p>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Direct Bridge Impact Area <input type="checkbox"/> Direct Community Impact Area
STIP PROJECTS	<p>Are there any reasonably foreseeable STIP projects within 3 miles of this project and/or that have the potential to affect or be affected by this project?</p>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Within 3 miles of bridge
BICYCLE, PEDESTRIAN AND/OR GREENWAY FACILITIES	<p>Are bicycle, pedestrian, or greenway facilities located in the Direct Bridge Impact Area, Direct Community Impact Area, and/or along the Closest Available Detour Route?</p> <p>There are no existing sidewalks or bicycle facilities on the bridge. On the west side of the bridge, a sidewalk is located along the north side US 25 / US 70. There is a pedestrian staircase in the southeast bridge quadrant from US 25 / US 70 to the French Broad River.</p>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Direct Bridge Impact Area <input checked="" type="checkbox"/> Direct Community Impact Area <input type="checkbox"/> Closest Available Detour Route
BICYCLE/PEDESTRIAN ACTIVITY	<p>Were bicyclists or pedestrians observed in the Direct Bridge Impact Area, Direct Community Impact Area, and/or along the Closest Available Detour Route?</p> <p>Hikers on the Appalachian Trail use the US 25 / US 70 bridge to cross the French Broad River, along with an access trail within the southeast bridge quadrant.</p>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Direct Bridge Impact Area <input checked="" type="checkbox"/> Direct Community Impact Area <input type="checkbox"/> Closest Available Detour Route
TRANSIT ROUTES, FACILITIES, AND/OR ACTIVITY	<p>Were bus routes observed in the Direct Bridge Impact Area, Direct Community Impact Area, and/or along the Closest Available Detour Route on the site visit? Were any riders observed using these facilities? Were any of these riders members of special populations?</p>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Direct Bridge Impact Area <input type="checkbox"/> Direct Community Impact Area <input type="checkbox"/> Closest Available Detour Route
ACCESS DRIVEWAYS AND CROSS STREETS	<p>Are there any driveways or intersections located in the Direct Bridge Impact Area?</p> <p>The Direct Bridge Impact Area (DBIA) is located in the eastern portion of the Town of Hot Springs.</p> <p>In the western DBIA, there is an intersection of US 25 / US 70 with Andrews Avenue North and a crossing of Norfolk Southern railroad.</p> <p>In the northwest bridge quadrant there are two private driveways to the Hot Springs Spa and Resort.</p> <p>Access to a convenience store is located in the southwest bridge quadrant off of US 25 / US 70.</p> <p>East of the river there is the intersection of US 25 / US 70 with Silver Mine Road. Silver Mine Road descends north from US 25 / US 70 to the</p>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Direct Bridge Impact Area

Pedestrian Counts

- Counts can be ordered through Connect NCDOT Traffic Safety Unit website
- Must be approved and standard turn around time is 2 weeks
- Average per day over 7-day continuous count required
- Must be able to identify pedestrians with mobility and visual disabilities
- Order counts when the perceived volume is high, not when it's very low




Determining the Level of Pedestrian Accommodation

Four Levels of Accommodation

- 1) **Absence of Need** = Less than 10 Peds/Day **AND** no existing facilities
- 2) **Basic** = 10 to 99 Peds/Day **or** existing facilities present
- 3) **Moderate** = 100 to 499 Peds/Day
- 4) **Full** = 500 or more Peds/Day

TRAFFIC COUNT REPORT



Specializing in Portable Studies

- Volume
- Classification
- Speed
- Origin and Destination Studies
- ALPR
- Turning Movement Counts
- Non-Intrusive Portable Counts

Offices in:

- Maryland
- Virginia
- New York
- North Carolina
- Arkansas

Count #: 18-14419
 Count Type: Pedestrian
 Crossing #: N/A
 FRA Land Use Category: Commercial
 Milepost: N/A
 Division: 5
 County: Wake
 City: Morrisville
 Location: 25 Feet North of Bus Stop Southbound Airport Boulevard
 Method of Collection: Manual via Video
24 Hour Average Pedestrian Volume: 23
 Speed Limit: 45 mph
 GPS Coordinates: 35.859716, -78.818506
 Conducted By: Mark White
 Summarized By: Shawn Nichols
 Start Date/Time: 9/23/2018 at 12:00 am
 End Date/Time: 9/30/2018 at 12:00 am

Weather Information

Date	Max		Average Sky		Weather Conditions
	Temp	Min Temp	Precipitation	Cover	
9/23/2018	76	64	0.00	0.8	Fog, Fog w/ <= 1/4 Mile
9/24/2018	74	64	Trace	1.0	Light Rain, Fog
9/25/2018	85	69	0.00	0.4	Fog
9/26/2018	87	66	0.12	0.5	Thunderstorm, Light Rain, Fog
9/27/2018	79	70	0.21	0.8	Thunderstorm, Rain, Light Rain, Fog
9/28/2018	79	65	0.02	0.7	Light Rain
9/29/2018	82	60	0.00	0.6	Fog

1. No Unique Conditions Existed at this location
2. Data Collection equipment was calibrated per manufacturers instructions

The Traffic Group Inc. 9900 Franklin Square Drive Suite H Baltimore, Maryland 21236
 410.931.6600 fax: 410.931.6601 1.800.583.8411 www.trafficgroup.com

Project Development Team Roles

Project Management

- With Community Studies, determine required level of pedestrian accommodation
- Ensure pedestrian accommodation level gets included in project planning document and/or project commitments.
- Ensure that pedestrian accommodation is included in the project scope of work

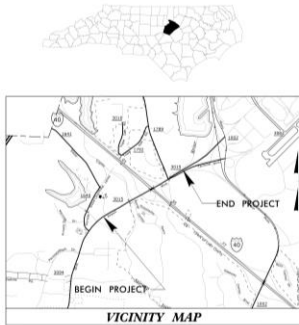


The screenshot shows an Excel spreadsheet titled "NCDOT Scope and Maniday Estimate Form". The spreadsheet is divided into several sections:

- WZTC Cost Estimate:** This section includes a table with columns for "Type:", "TIP Project:", "WBS #:", "CONSULTANT NAME", and "Estimate Date:". The "Type:", "TIP Project:", and "WBS #" rows are highlighted in yellow.
- Project Commitments:** This section includes a table with columns for "TASKS", "CLASSIFICATIONS", and "EMPLOYEES' NAMES". Below this table is a list of tasks, including "Staging (1st Submittal - Evaluated)", "Review Roadway Plans & X-Sections", "Site Visit/Field Investigations", "Meet/Discuss with WZTC to Brainstorm Project", "Establish Traffic Mgmt Strategy", "Concept Sketches (Overviews & Details)", "Preliminary General Notes", "Written Concept", "Meet with WZTC to Review Staging Concept", "Revises per Meeting with WZTC", "Meetings & Coordination (include FDI or CFI)", "Prepare & Distribute Meeting Minutes", "Shoring Meeting", "Distribution of Plans", "MidPoint (If Required - Not Evaluated)", "Title Sheet", "Notes Sheets", "Overviews", "Advance Work Zone Warning Signs", "Written Phasing in Plan Format", "TC Details (Drawn to Scale)", "Detour Details (including Special Sign Designs)", "Intermediate Contract Times", and "Draft Provisions: Special Details, etc".
- Project Commitments Table:** This table includes the following information:
 - H. Project Commitments**
 - Nash County**
 - Proposed New Interchange on I-95**
 - At SR 1770 (Sunset Avenue)**
 - Federal Project No. IMF-95-3(94)137**
 - WBS No. 44033.1.1**
 - TIP No. U-5026**
 - NCDOT Division Four**
 - This project involves construction activities on or adjacent to a FEMA-regulated stream(s). Therefore, the Division will submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying the drainage structure(s) and roadway embankment located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.
 - NCDOT Hydraulics Unit**
 - The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).
 - Financial Management Division, Division Four Construction**
 - A municipal agreement will be prepared prior to construction between NCDOT and the City of Rocky Mount for the inclusion of new sidewalks. Based on NCDOT'S Pedestrian Policy, the City of Rocky Mount will fund 40% of the cost of these improvements and accept maintenance and liability for the sidewalks.
 - NCDOT Traffic Noise and Air Quality Group**
 - During final design, a Design Noise Report will be prepared that will re-evaluate noise walls identified as preliminarily feasible and reasonable in the Traffic Noise Report.

Project Development Team Roles

TMP Designer

- Design a Transportation Management Plan in accordance with the level of accommodation needed
- If possible, WALK the project area to determine existing conditions and document, as necessary. It may be the only opportunity before construction begins

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS	
TRANSPORTATION MANAGEMENT PLAN	
WAKE COUNTY	
	
LOCATION: I-40 AND SR 3015 (AIRPORT BLVD.), REVISE INTERCHANGE AND CONSTRUCT AUXILIARY LANE ON I-40 WESTBOUND FROM SR 3015 (AIRPORT BLVD.) TO I-540.	
PLANS PREPARED BY: D. A. HAYES, E.I.	NCDOT CONTACTS: KENNETH C. THORNHILL, P.E. PROJECT ENGINEER MICHAEL STEELMAN PROJECT DESIGN ENGINEER
	
WORK ZONE SAFETY & MOBILITY <small>COMPLY WITH THE REQUIREMENTS OF 88C-100007</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETE	
APPROVED: [Signature]	DATE: 10/20/08
	
SEAL	
INDEX OF SHEETS	
SHEET NO.	TITLE
TMP-01	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
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TMP-01B & 01C	TRANSPORTATION OPERATIONS PLAN: (PROJECT NOTES)
TMP-02	PORTABLE CONCRETE BARRIER AT TEMPORARY SHOULDER LOCATIONS
TMP-02A	TEMPORARY SHOULDER DATA
TMP-02B	TEMPORARY SHOULDER LOCATIONS
TMP-02C	3-40 DETOUR FOR GINGER INSTALLATION
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TMP-02I - 02J	-HP- AND -RPO- OFFSITE DETOURS
TMP-02K - 02L	AIRPORT BLVD. OFFSITE DETOURS FOR LEFT TURN AND THRU MOVEMENTS
TMP-02M	DYNAMIC MESSAGE BOARD PLAN
TMP-02N	WORK ZONE "VARIABLE" SPEED LIMIT REDUCTION USING SELECTIVE SPEED LIMIT SIGNS
TMP-02O - 02Q	SPECIAL SIGN DESIGNS(S)
TMP-02R - 02U	TEMPORARY ALIGNMENT LAYOUT
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TMP-16 - 27	PHASE II DETAIL
TMP-28 - 43	PHASE III DETAIL
TMP-44 - 49	PHASE IV DETAIL
TMP-50 - 62	CUT SECTION DETAIL SHEETS

I-5700

TIP PROJECT:

Site Visits

Things to look for

- Existing sidewalks and/or worn paths (document existing ADA features)
- Pedestrian generators and attractors such as schools, bus stops, parks, proximity of commercial and residential areas

Use local knowledge

- Communicate with regional traffic engineer and Division staff to determine pedestrian activity
- Contact local service providers for citizens with disabilities



Site Visits

Determine continuity of Existing Sidewalks (i.e. do they connect to the next intersection? or simply end)

- Noncontinuous sidewalks are not expected to be maintained
- However, if there is a worn foot path that continues from the sidewalk and connects somewhere then it must be maintained



Site Visits

- Check the condition of the existing sidewalk for:
 - Uneven/Damaged sidewalks due to tree roots, settlement, and other issues
 - Obstructions in the path such as power poles or trees



Site Visits

2) Evaluate Existing Sidewalks for ADA Compliance

- Width of sidewalk (3' Min, however anything less than 5' has to have "passing" spaces every 200')
- Running slope of sidewalk (5% or less)
- Cross slope of sidewalk (2% or less)



Site Visits

Check for existing curb ramps

- Detectable edging
- Is there a flat surface to turn around at the top of the ramp?
- Is there a receiving ramp on the other side of the road?
- What direction does the ramp direct users?



Site Visits

Most existing sidewalks are not ADA Compliant

- The work zone does not have to be brought up to full ADA standards during construction
 - Any existing ADA features should be present in any temporary facility
 - Any traffic control devices that are used to maintain pedestrian access must be ADA compliant.

Takeaways from this Segment

- The level of pedestrian accommodation should be determined as early as possible in the process (in planning)
- Order pedestrian counts when you think the volumes may be high enough to fall into the moderate level of accommodation
- The level of pedestrian accommodation should be captured in a firm's scope of work and manday estimate
- Existing ADA features of a sidewalk should be noted as early as possible so that those features are known by all and to help avoid surprises during TMP design

Best Practices for TMP Designers

- Understand the level of pedestrian accommodation required on each roadway.
- Absence of Need:
 - Nothing needed in TMP at start of project.
 - But as sidewalks get built by the project, those facilities may need to follow Basic accommodations.



Best Practices for TMP Designers

- Basic Accommodations
 - ADA compliant devices need to be used to close existing facilities. Type III Barricades are NOT ADA compliant.
 - Permanent facilities should be phased early. Existing facilities on one side should be maintained until permanent facilities can open.
 - Off-site detours (up to ½ mile additional length) may be used.
 - Pedestrian transport service are another option, but pickup locations need to be planned.



Best Practices for TMP Designers

- Moderate Accommodations
 - Maintenance of existing facilities becomes more important.
 - On-call transport service is not permitted --
Recurring transport (such as a bus on a schedule) is required.
 - Offsite detours are still permitted (up to ½ mile additional length)



Best Practices for TMP Designers

- Full Accommodations
 - Peds should be maintained on-site at all times.
 - Ped facilities during construction **MUST** meet current ADA standards
 - May require ADA upgrades as Phase 1 of construction
 - If on-site peds cannot be maintained, recurring transport is required every 20 minutes.
 - Offsite detours are **NOT** permitted.




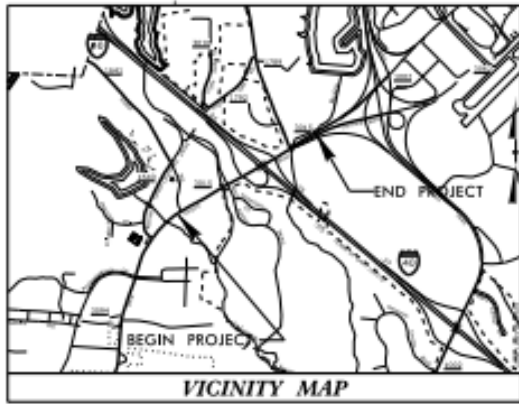
Example Project: I-5700, Airport Blvd. Morrisville, NC Currently Under Construction

**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS**

TRANSPORTATION MANAGEMENT PLAN

WAKE COUNTY





VICINITY MAP


**LOCATION: I-40 AND SR 3015 (AIRPORT BLVD.), REVISE INTERCHANGE
AND CONSTRUCT AUXILIARY LANE ON I-40 WESTBOUND
FROM SR 3015 (AIRPORT BLVD.) TO I-540.**

**TYPE OF WORK: ITS, DRAINAGE, GRADING, PAVING, SIGNALS
CULVERTS AND STRUCTURES**


<p>PLANS PREPARED BY:</p> <p>D. A. HAYES, E.I.</p>	<p>NCDOT CONTACTS:</p> <p>KENNETH C. THORNELL, P.E. PROJECT ENGINEER</p> <p>MICHAEL STEGLMAN PROJECT DESIGN ENGINEER</p>
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WORK ZONE SAFETY & MOBILITY
"Keep the Roadstays in the Cross"



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

<p>APPROVED: _____</p> <p>DATE: _____</p>	
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3244

I-5700

TIP PROJECT:

Example Project: I-5700-- Under Construction



Example Project: I-5700-- Under Construction

Volume/Class – Non-Motorist Data Request Form

North Carolina Department of Transportation
Transportation Mobility and Safety Division

Data Parameters:

Duration:	24 Hours for 7 Consecutive Days	Increment:	15 minutes
Begin Day:	Sunday	Time:	12:00 a.m.
End Day:	Sunday	Time:	12:00 a.m.

(Indicate specific beginning and ending dates and times if needed)

Turnaround Time:	4 Weeks (standard)	Is this a work zone?	No	Schools in session?	Yes
Comments:	Proceed with counts if school is not in session. Do not take counts during a holiday week or major events.				
Video as Part of Submittal:	No				

Location (attach map):

Division:	5	County:	Wake	City:	Morrisville
Description:	place ped counter 25 feet north or south of the bus stop on SB Airport Blvd.				
Latitude:		Longitude:		Location/Route Tier:	Regional
State FIPS Code:		County FIPS Code:		Functional Class:	
Direction of Route (North, South, East, West) :	south			National Highway System:	No

Justification:

Reason: Work Zone

Purpose: Other (specify)

verify pedestrian ADT

Billing:

Project: I-5700

WBS (or other billing code):

50118.1.FS1

Function Code: 4P10

Requestor:

Name: Michael Steelman

Organization: Work Zone Traffic Control

Phone: 919-814-5015

Email: msteelman@ncdot.gov

Signature: Michael Steelman

Date: 8-15-2018

Approvals:

Name: KENNETH THORNEWELL JR.

Title: WZTC PROTECT ENGINEER-CENTRAL

Signature: Kenneth Thornevell Jr.

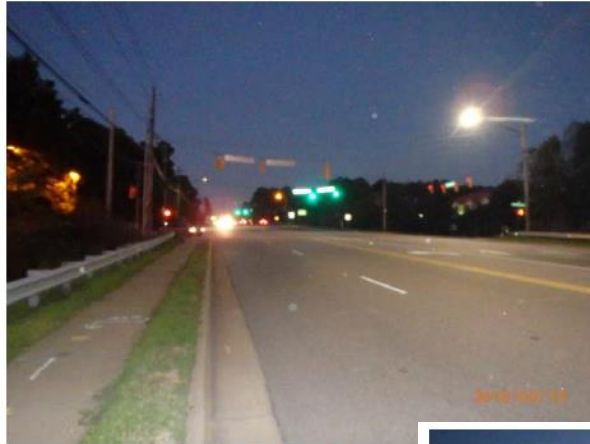
Date: 8/15/2018

Example Project: I-5700-- Under Construction

Pedestrian Count Photos and Results



TRAFFIC COUNTER



WESTBOUND



EASTBOUND

23:30	0	0	0	0	0	0	0
23:45	0	0	0	0	0	1	0
Pedestrian Total	11	20	47	26	16	18	20
Weekly Total	158						
Daily Average	23						

Example Project: I-5700-- Under Construction

Pedestrian accommodations are included in project phasing.

Phase 1, Step 2:

INSTALL PEDESTRIAN BARRICADES ALONG -L- 'LEFT', 'RIGHT', -Y5-, AND CLOSE SIDEWALKS. DETOUR PEDESTRIANS USING A SHUTTLE SERVICE. THEN USING RSD 1101.02 CONSTRUCT -L- RIGHT FROM BEGIN CONSTRUCTION LIMITS (SEE RDWY PLANS) TO STA. 21+12 -L- AND TEMPORARY PAVEMENT(A), CURB AND GUTTER, AND SIDEWALK AT HAMPTON INN DRIVEWAY BETWEEN THE HAMPTON INN DRIVEWAY AND -Y1- (AERIAL CENTER PKWY). [REFER TO SHEETS TMP-09 AND 10]

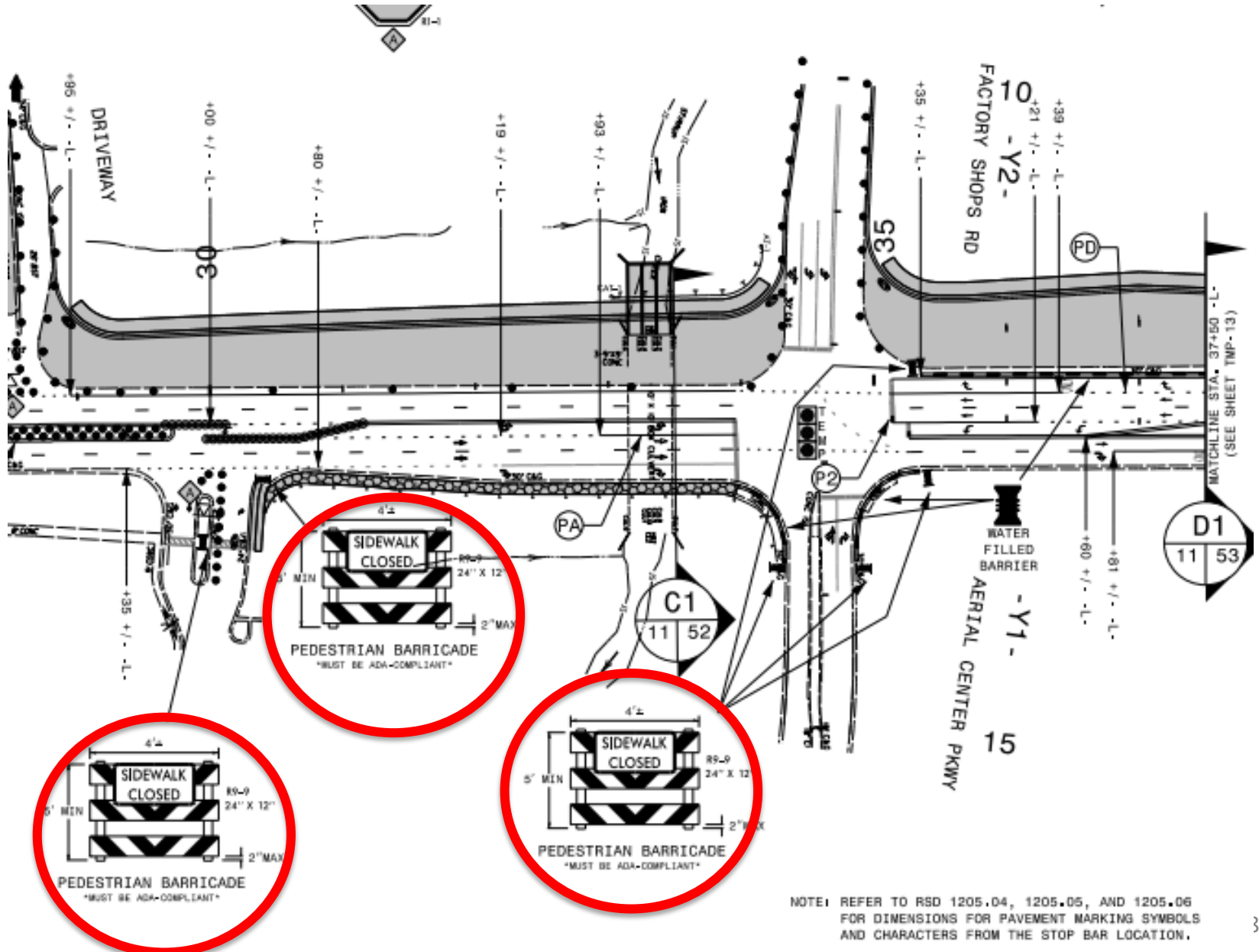
STEP 3A) REMOVE PEDESTRIAN BARRICADES INSTALLED IN STEP 2 AND OPEN DETOUR TO PEDESTRIANS. CLOSE -L- 'LEFT', -Y5-, DRIVEWAY, AND -Y2- AND DETOUR PEDESTRIANS USING A SHUTTLE SERVICE. [REFER TO SHEETS TMP-11 AND 12]

COMPLETE THE FOLLOWING IN THIS ORDER, CLOSING THE ROADWAY AND DETOUR TRAFFIC, WEDGING UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TIEING THE WEDGING TO EXISTING -L-, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS, AND RE-OPENING THE ROADWAY TO THE PHASE II PATTERN.

[REFER TO SHEETS TMP-02D, 02E, 020, 11, & 12]

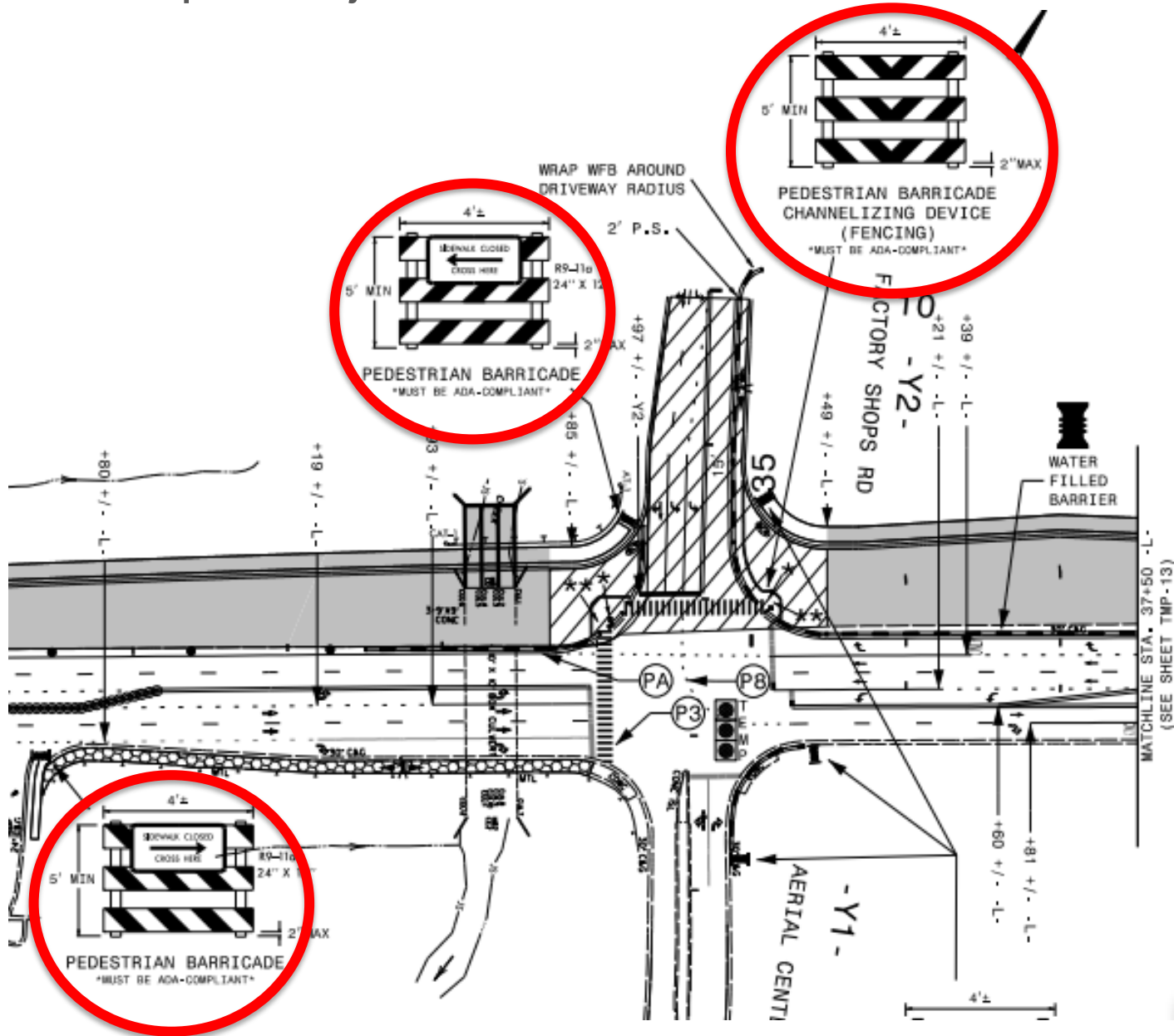
- -Y5- (DETOUR TO SORRELL GROVE CHURCH RD)
- DRIVEWAY (DETOUR TO -Y5-)
- -Y2- (DETOUR TO -Y5-).
- INSTALL THE TEMPORARY SIGNALS FOR PHASE III AND BAG HEADS.
- OPEN SIDEWALKS ON -Y5-, -Y2-, AND DRIVEWAY AND INSTALL PEDESTRIAN BARRICADES ON -L- AT EACH -Y- LINE.

Example Project: I-5700 -- Under Construction

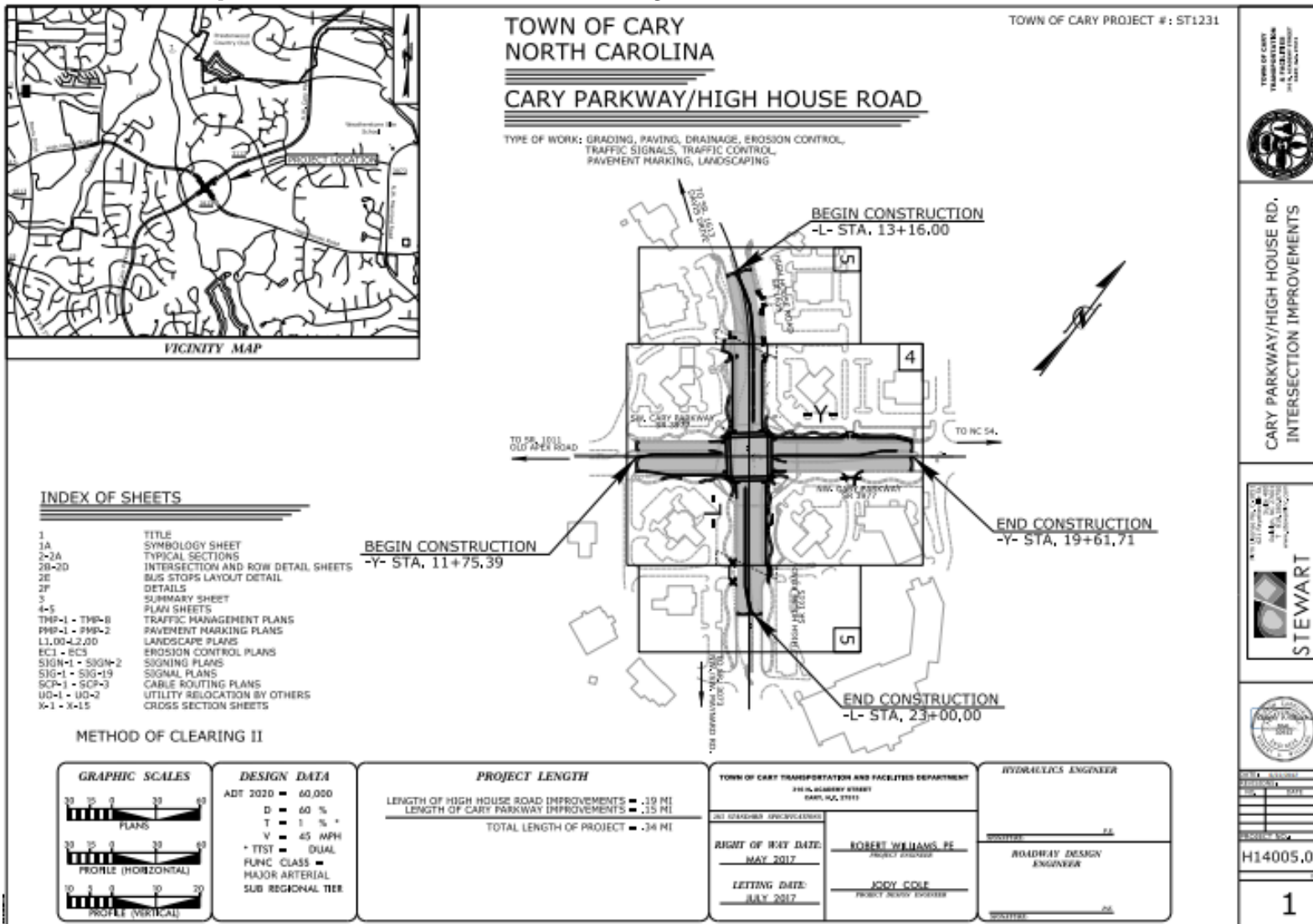


NOTE: REFER TO RSD 1205.04, 1205.05, AND 1205.06 FOR DIMENSIONS FOR PAVEMENT MARKING SYMBOLS AND CHARACTERS FROM THE STOP BAR LOCATION.

Example Project: I-5700 -- Under Construction



Case Study: Cary Pkwy/High House Rd. Intersection Improvements in Cary, NC -- Summer 2018



Case Study: Cary, NC -- Summer 2018



Case Study: Cary, NC -- Summer 2018



Case Study: Cary, NC -- Summer 2018

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
-L- HIGH HOUSE ROAD	TUESDAY - FRIDAY 8:00 AM - 8:30 AM
-Y- CARY PARKWAY	MONDAY - FRIDAY 4:30 PM - 7:00 PM * SATURDAY 4:00 PM - MONDAY 9:30 AM

* NOTE: NO WORK SHALL BE CONDUCTED DURING THIS TIME.

B) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
-L- HIGH HOUSE RD	TUESDAY - FRIDAY 6:00 AM - 7:00 PM	15 MINUTES (COORDINATE WITH RESIDENT ENGINEER FOR INSTALLATION OF TEMPORARY SIGNAL SYSTEM AND REMOVAL OF OLD SYSTEM)
-Y- CARY PARKWAY	SATURDAY 6:00 AM - MONDAY 7:00 PM	
-L- HIGH HOUSE RD	TUESDAY - FRIDAY 6:00 AM - 7:00 PM	15 MINUTES (COORDINATE WITH RESIDENT ENGINEER FOR INSTALLATION OF FINAL SIGNAL SYSTEM AND REMOVAL OF TEMPORARY SYSTEM)
-Y- CARY PARKWAY	SATURDAY 6:00 AM - MONDAY 7:00 PM	

C) SEE INTERMEDIATE CONTRACT TIME FOR TIME RESTRICTIONS CONCERNING HOLIDAYS, HOLIDAY WEEKENDS, SPECIAL EVENTS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY.

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 16 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

H) DO NOT WORK SIMULTANEOUSLY WITHIN 16 FT ON BOTH SIDES OF AN OPEN TRAVELWAY WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON CARY PARKWAY OR HIGH HOUSE ROAD.

J) MAINTAIN TWO WAY TRAVEL LANES ON CARY PARKWAY AND HIGH HOUSE ROAD AT ALL TIMES.

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) BACKFILL AT A 4:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAY WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (WB-11) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) CONTRACTOR SHALL CONTACT THE ENGINEER, THE TOWN OF CARY TRAFFIC MANAGEMENT CENTER AT (919) 468-4000 AND TRAFFIC OPERATIONS GROUP AT (919)468-3090 21 DAYS PRIOR TO WORK COMMENCING IN PHASE 1 AND WORK COMMENCING IN PHASE 2.

N) THE DYNAMIC MESSAGE BOARD SHALL BE IN PLACE ONE WEEK PRIOR TO COMMENCING WORK TO NOTIFY THE TRAVELING PUBLIC.

SIGNING

O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

Q) INSTALL BLACK OR ORANGE "DOP" SIGNS (WB-2) AND/OR "BUMP" SIGNS (WB-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

R) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADIUS, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES SKINNY DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

T) MAINTAIN NO LESS THAN 1' OFFSET FROM SIDEWALK TO THE PORTABLE WATER-FILLED BARRIER WHERE A MINIMUM OF 2' IS NOT OBTAINABLE.

PAVEMENT MARKINGS AND BARRIERS

U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT BARRIERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	BARRIER
HIGH HOUSE ROAD	PAINT	NONE
CARY PARKWAY		

V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND BARRIERS BY THE END OF EACH DAY'S OPERATION.

X) TRACE THE PROPOSED CONCRETE ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

Y) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

Z) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE TOWN OF CARY.

AA) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, GRADENAGE, ETC.)



CARY PARKWAY/HIGH HOUSE RD. INTERSECTION IMPROVEMENTS

WILHELM KEMP ASSOCIATES, INC.
 1000 W. GARDNER STREET
 SUITE 100
 RALEIGH, NC 27601
 TEL: 919.876.1100
 FAX: 919.876.1101
 WWW.WKASSOCIATES.COM



DATE	BY

H14005.00

TMP-2

Case Study: Cary, NC -- Summer 2018

- General Notes and Phasing include pedestrian accommodation language

General Notes:

- AA) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.)

Phasing:

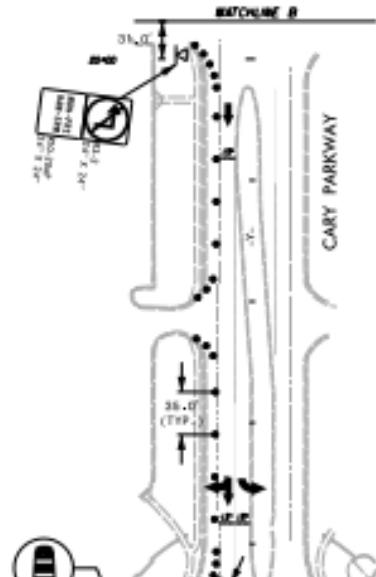
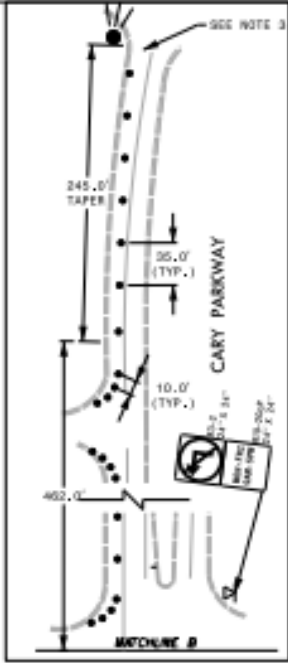
PHASE 1A (SEE TMP-3)

STEP 1: USING RSD 1101.02 (SHEET 3 OF 15) CLOSE THE SHARED THRU-RIGHT LANE ALONG HIGH HOUSE ROAD (WEST OF THE INTERSECTION). CONSTRUCT TEMPORARY SIDEWALK AND INSTALL TEMPORARY BARRIER. REROUTE PEDESTRIANS SAFELY ALONG HIGH HOUSE ROAD USING TEMPORARY SIDEWALK. BEGIN CONSTRUCTION OF RIGHT TURN LANE, DRAINAGE, PROPOSED SIDEWALK, CURB RAMPS, AND REMOVAL OF EXISTING SIDEWALK AWAY FROM PEDESTRIAN TRAFFIC.

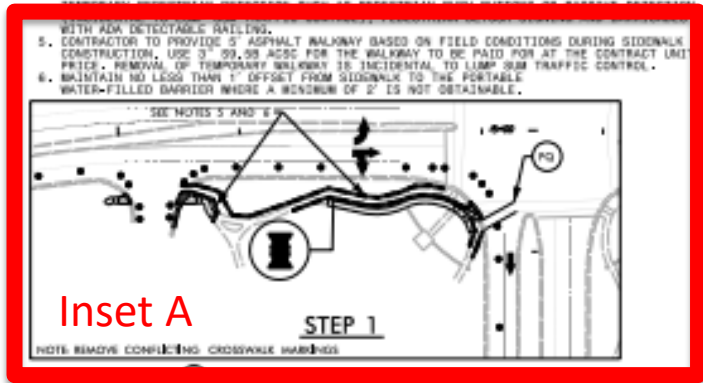
STEP 2: REROUTE PEDESTRIANS SAFELY ALONG HIGH HOUSE ROAD USING THE PROPOSED SIDEWALK. COMPLETE CONSTRUCTION OF SIDEWALK AND CURB RAMPS AND REMOVE REMAINING EXISTING SIDEWALK AND CURB RAMP.



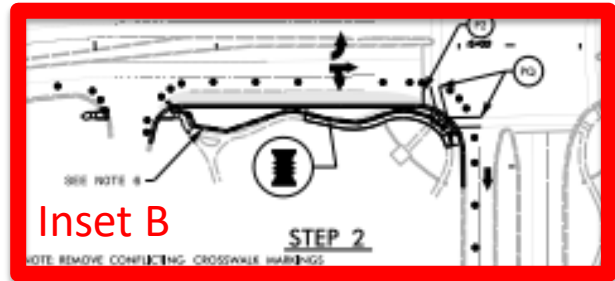
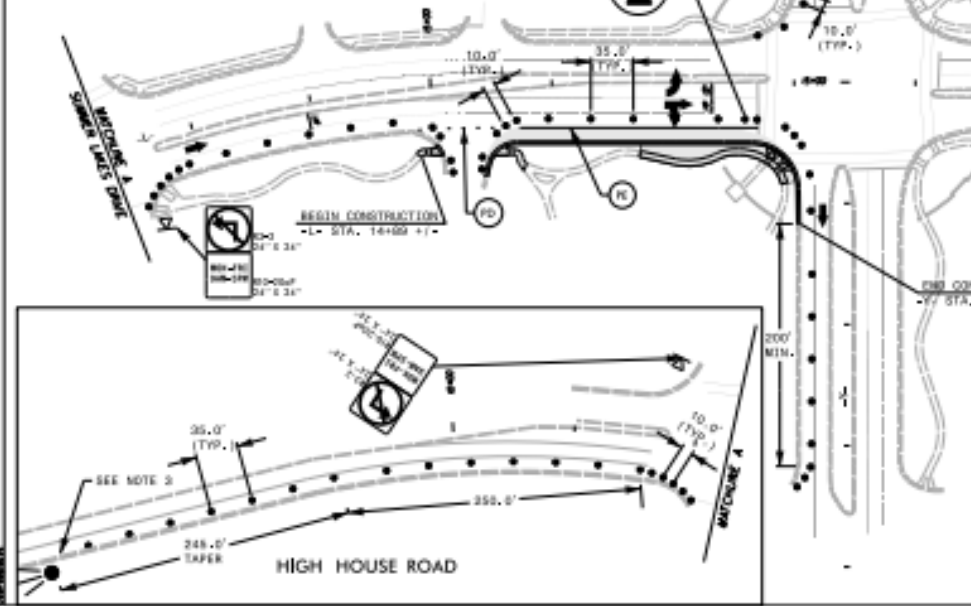
(PLANS)



- NOTES:
1. RETURN TRAFFIC TO THE EXISTING PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER. SEE GENERAL NOTES AND PHASING FOR FURTHER GUIDANCE.
 2. THIS DRAWING SHOWS THE DEVICES TO BE IN PLACE DURING THE ACTUAL CONSTRUCTION. SEE ROAD 1101.02, SHEET 3 OF 15 FOR LANE CLOSURE SIGNING AND NOTES.
 3. CONTRACTOR TO PROVIDE APPROPRIATE SIGNING, MERGE TAPER AND BUFFER SPACING PER ROAD STD 1101.02 SHEET 3 OF 15. AVOID PLACING MERGE TAPER 15' WITHIN 150' FT OF AN INTERSECTION OR MEDIAN OPENING. SEE TMP 1A FOR TEMPORARY TRAFFIC SIGN SPACING DETAIL AND WORK ZONE SPEED LIMIT SIGN SPACING DETAIL.
 4. SEE PHASING NOTES FOR PEDESTRIAN REROUTING. TEMPORARY TRAFFIC CONTROL EQUIPMENT SHOULD NOT OBSTRUCT PEDESTRIAN PATH. CONTRACTOR SHALL INSTALL APPROPRIATE



- (PC) WHITE GOLD LANE LINE PAINT (4")
- (PO) WHITE CROSSWALK LINE PAINT (8")
- (PS) WHITE STOP BAR PAINT (24")



STATE OF NORTH CAROLINA
TRANSPORTATION DEPARTMENT
100 EAST ROBERTSON

CARY PARKWAY/HIGH HOUSE RD.
INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PHASE 1A

RAMEY KEMP ASSOCIATES, INC.
TRAFFIC ENGINEERING AND CONSULTANTS
10000 W. HARRIS LANE
DURHAM, NC 27703
(919) 486-1000

DATE: 11/11/11
PROJECT: 11-11-11
SHEET NO.: 11-11-11
SCALE: AS SHOWN

H14005.00

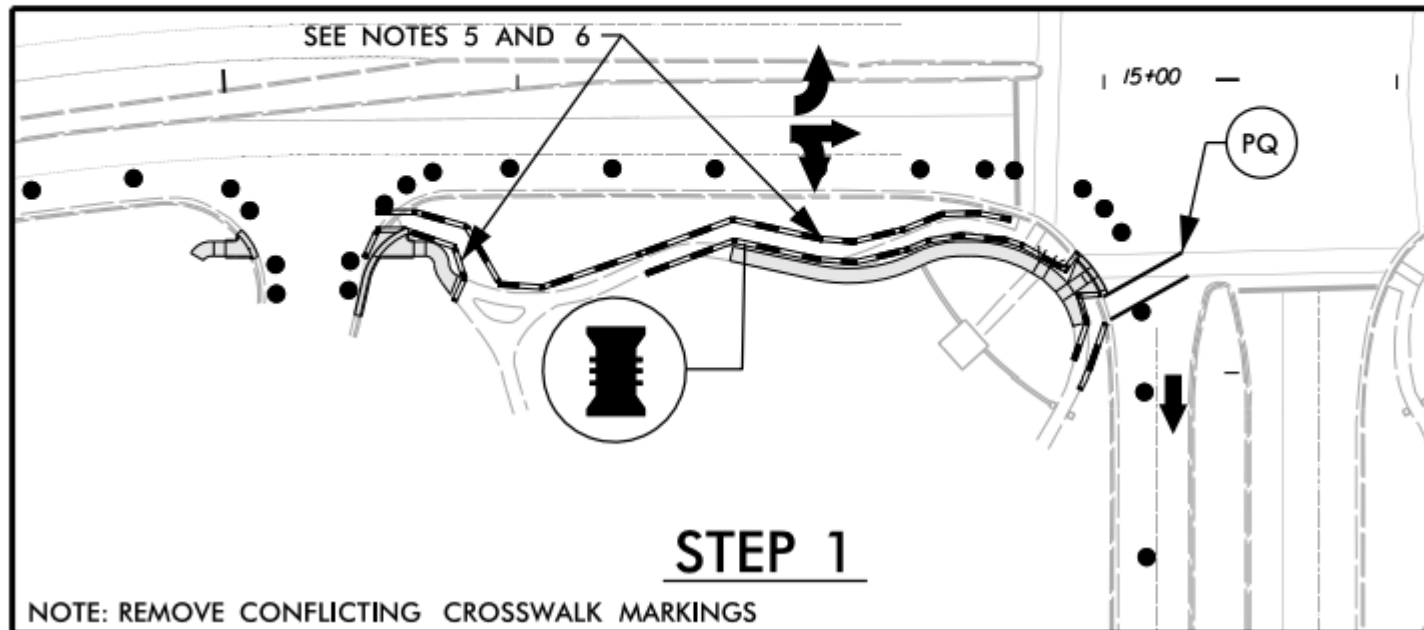
TMP-3

DOCUMENT NOT FOR CONSTRUCTION
FOR ALL INFORMATION CONTACT THE PROJECT ENGINEER

Case Study: Cary, NC -- Summer 2018

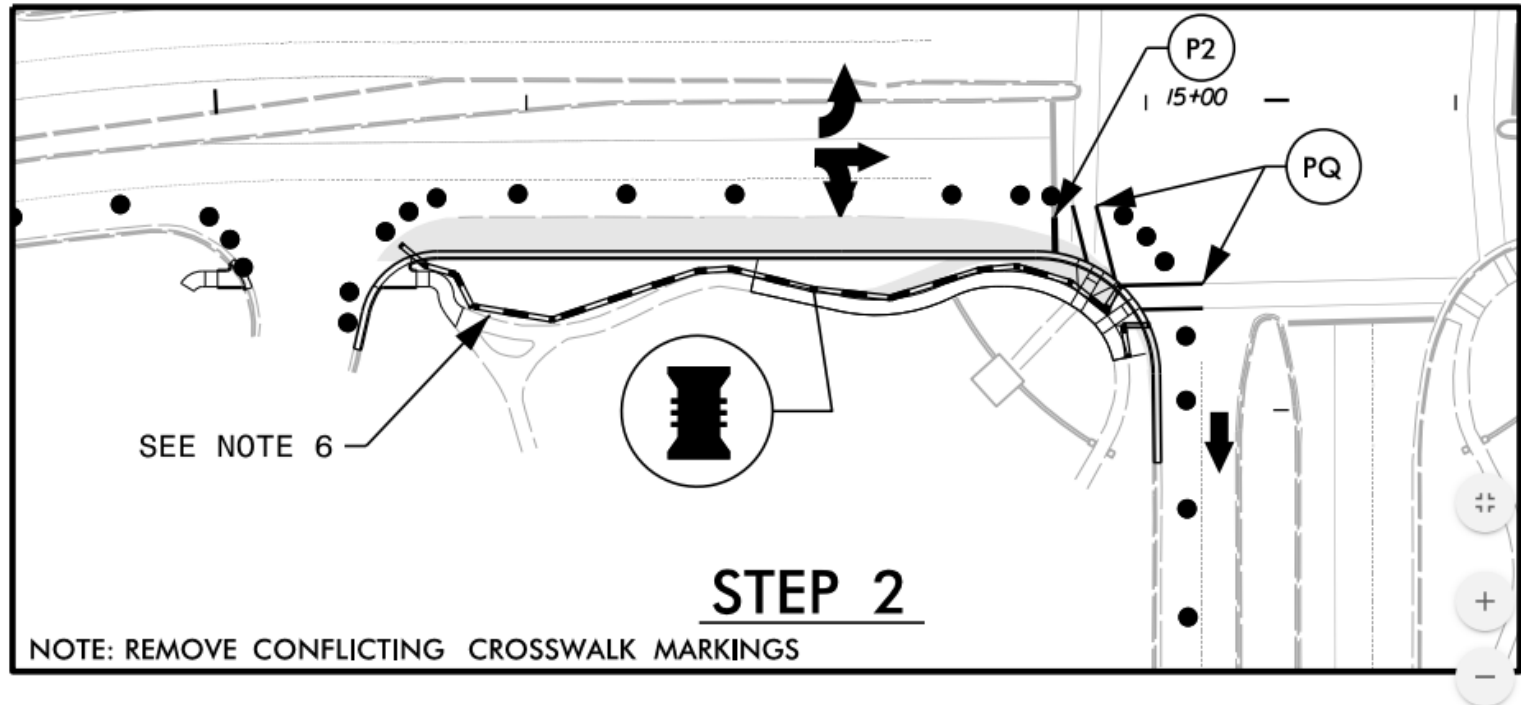
Inset A

4. SEE PHASING NOTES FOR PEDESTRIAN REROUTING. TEMPORARY TRAFFIC CONTROL EQUIPMENT SHOULD NOT OBSTRUCT PEDESTRIAN PATH. CONTRACTOR SHALL INSTALL APPROPRIATE TEMPORARY PEDESTRIAN DETECTION SUCH AS PEDESTRIAN PUSH BUTTONS OR PASSIVE DETECTION (INCIDENTAL TO LUMP SUM TRAFFIC CONTROL), PEDESTRIAN DETOUR SIGNING AND BARRICADES WITH ADA DETECTABLE RAILING.
5. CONTRACTOR TO PROVIDE 5' ASPHALT WALKWAY BASED ON FIELD CONDITIONS DURING SIDEWALK CONSTRUCTION. USE 3" S9.5B ACSC FOR THE WALKWAY TO BE PAID FOR AT THE CONTRACT UNIT PRICE. REMOVAL OF TEMPORARY WALKWAY IS INCIDENTAL TO LUMP SUM TRAFFIC CONTROL.
6. MAINTAIN NO LESS THAN 1' OFFSET FROM SIDEWALK TO THE PORTABLE WATER-FILLED BARRIER WHERE A MINIMUM OF 2' IS NOT OBTAINABLE.



Case Study: Cary, NC -- Summer 2018

Inset B



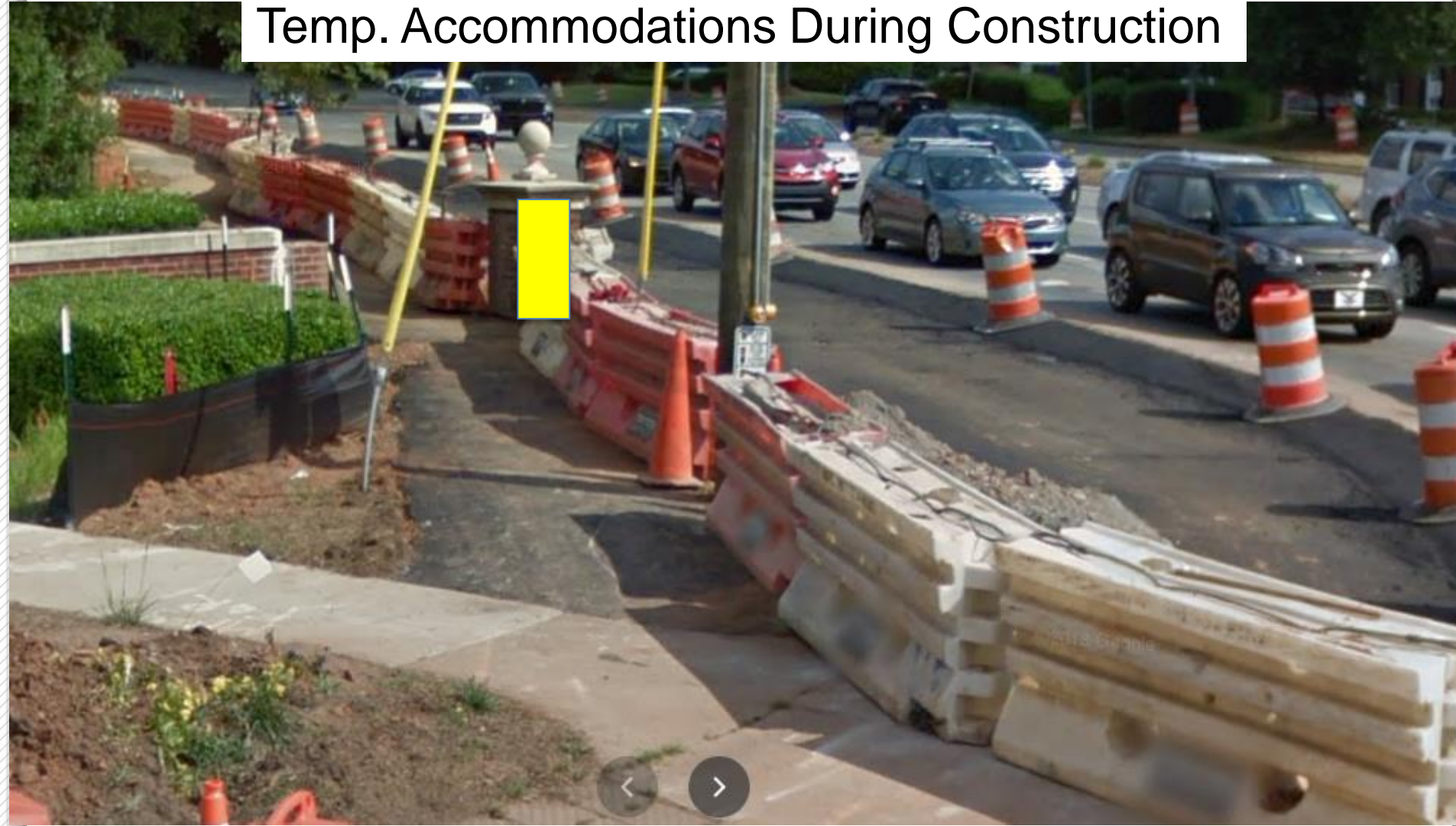
Case Study: Cary, NC -- Summer 2018

Existing Conditions



Case Study: Cary, NC -- Summer 2018

Temp. Accommodations During Construction



Case Study: Cary, NC -- Summer 2018

Existing Conditions



Case Study: Cary, NC -- Summer 2018

Temp. Accommodations During Construction




Case Study: Cary, NC -- Summer 2018

Final Condition



WZ Pedestrian Special Provisions

- **ADA Compliant Pedestrian Traffic Control Devices**
- **Pedestrian Transport Service**
- Available in WZTC's WASP program
- Always launch WASP from the website –Saving a local copy of WASP or provisions could result in outdated documents.



WASP
Workzone Application for Special Provisions

START

Select All **WORK ZONE TRAFFIC CONTROL SPECIAL PROVISIONS**

<input type="checkbox"/>	Traffic Control Devices to Remain on Project
<input type="checkbox"/>	Traffic Control Devices from Previous Project
<input type="checkbox"/>	ADA Compliant Pedestrian Traffic Control Devices
<input type="checkbox"/>	...
<input type="checkbox"/>	Lump Sum Payment for Traffic Control
<input type="checkbox"/>	Temporary Glare Screen
<input type="checkbox"/>	Remove and Replace Snowplowable Pavement Marker Reflector
<input type="checkbox"/>	Automated Flagger Assistance Devices (AFAD) (Trailer Mounted)
<input type="checkbox"/>	Temporary Rumble Strips
<input type="checkbox"/>	Sidewalk Protective Canopy
<input type="checkbox"/>	Sequential Flashing Warning Lights
<input type="checkbox"/>	Work Zone Presence Lighting
<input type="checkbox"/>	Work Zone Digital Speed Limit Signs
<input type="checkbox"/>	Work Zone Traffic Pattern Masking
<input type="checkbox"/>	Work Zone Performance Pavement Markings
<input type="checkbox"/>	Warning Flags - No longer part of our specifications. "Use only when called for"
<input type="checkbox"/>	High Visibility Devices
<input type="checkbox"/>	Temporary Portable Traffic Signal System
<input type="checkbox"/>	Temporary Portable Traffic Signal System with Driveway Signals
<input type="checkbox"/>	Connected Lane Closure Devices
<input type="checkbox"/>	...
<input type="checkbox"/>	Pedestrian Transport Service

Clear Selections **Create Project Provisions**

Artie says:
This program comp
formats selected S
Provisions. YOU ar
responsible for th
and Sealing !

ADA Compliant Pedestrian TCD's

- Pedestrian Channelizing Devices
 - Show on plans to close sidewalks and/or channelize pedestrians when away from traffic.
 - Paid by LF, pay for SIDEWALK CLOSED signs separately as Barricade Mounted Signs.
 - Water-filled or portable concrete barrier (WFB/PCB) can be used in plans to separate peds from traffic. If used for this, pay as WFB/PCB, NOT Pedestrian Channelizing Device.
 - WFB/PCB will need proper end units when in vehicle clear zone.
 - Contractor can use WFB/PCB in lieu of Ped. chan. devices with Engineer's Approval



Pedestrian Channelizing Devices – Away from Traffic



Water-filled Barrier – Adjacent to Traffic

ADA Compliant Pedestrian TCD's

- Audible Warning Devices
 - Must be used in conjunction with pedestrian transport service at sidewalk closure locations.
 - Must also be used at all pedestrian path changes (on/off-site detours) if existing audible devices are on project, such as locator tones at traffic signals.
 - Paid by Each, Quantity is measured as the maximum number on the job at any given time.



ADA Compliant Pedestrian TCD's

- Temporary Curb Ramps
 - Used whenever pedestrians must traverse an existing curb or other grade change.
 - Paid by Each. Quantity is measured by total number used throughout life of project. Re-use of a ramp in a new location gets measured and paid separately.



ADA Compliant Pedestrian TCD's

- This Special Provision must be modified by engineer of record prior to submission to plan checking.
- If SP has devices included that are not used in the project, the SP will be rejected.
- Remove unused items from SP before sealing.

Construction Methods

The ADA compliant pedestrian traffic control devices involved in the closing or redirecting of pedestrians as designated on the Transportation Management Plan (TMP) shall be manufactured and assembled in accordance with the requirements of the Americans with Disabilities Act (ADA) and be on the NCDOT approved products list.

Pedestrian Channelizing Devices shall be manufactured and assembled to be connected as to eliminate any gaps that allow pedestrians to stray from the channelizing path. Any Pedestrian Channelizing Devices used to close or block a sidewalk shall have a "SIDEWALK CLOSED" sign affixed to it and any audible warning devices, if designated on the TMP.

Audible Warning Devices shall be manufactured to include a locator tone activated by a motion sensor and have the ability to begin a message for a duration of at least 1 minute. The motion sensor shall have the ability to detect pedestrians a minimum of 10' away. The voice module may be automatic or it may be push button activated. If push button activated, it shall be at the appropriate height to meet the ADA regulations.

Temporary Curb Ramps shall be manufactured and assembled to meet all of the requirements for persons with walking disabilities, including wheelchair confinement, according to the ADA regulations included with the project.

Payment for each of these devices is dependent upon satisfactory installation and acceptance by the Engineer. The unit prices include any costs associated with installation, maintenance and removal of the devices from the project.

Measurements

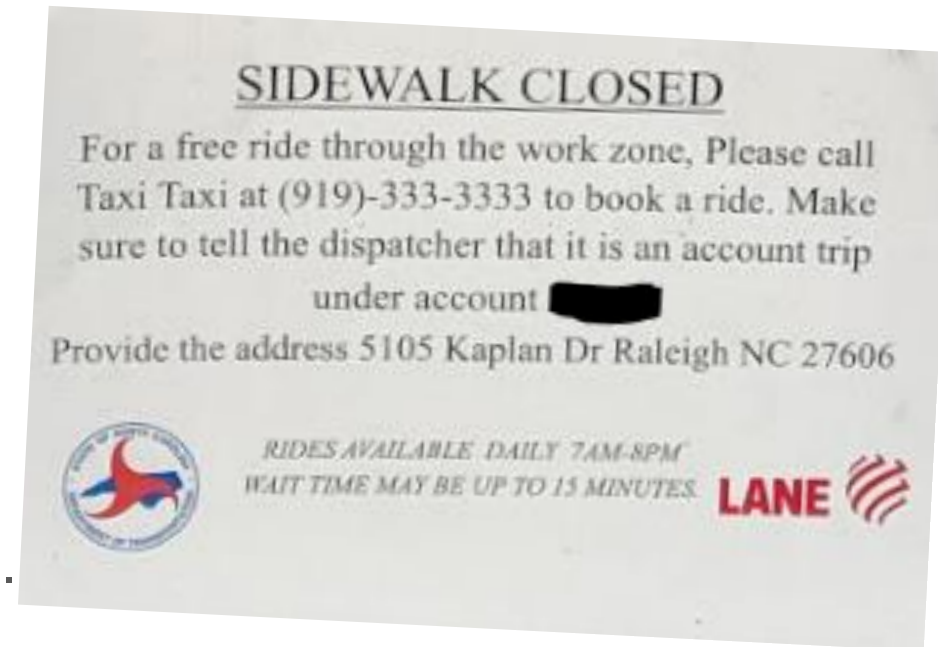
The measurement

Payment will be made under:

Pay Item	Pay Unit
Pedestrian Channelizing Devices.....	Linear Foot
Audible Warning Devices.....	DELETED.....Each
Temporary Curb Ramps.....	Each

PEDESTRIAN TRANSPORT SERVICE

- An on-call service used to transport pedestrians around the project when no stable, traversable path can be maintained through the work area. Must enlist a licensed operator, such as a taxi or ridesharing service.
- Used to meet Basic ped accommodation requirements.
- Designer needs to identify suitable pickup locations in plans.
- **Per Trip**
- Estimate: (Daily Ped Count) x (# of Days Sidewalk Interrupted)



We're Here to Help!

- Every DDRL project has an assigned WZ Design Squad Leader here in Raleigh to assist with questions from the Division or TMP designer.
- We can determine whether the plan follows the Chief Engineer's Temporary Pedestrian Accommodations directive and provide ideas if you're stuck.
- For complex situations, we can present your situation to the Pedestrians in Work Zones Task Force to obtain concurrence if an exception to the directive is necessary.

Takeaways from this Segment

- It is the Traffic Control Designer's responsibility to understand the level of pedestrian accommodation required for the project.
- The designer must include general notes, phasing, devices, quantities, and provisions in the plans to meet the required accommodation level throughout all phases of the project.
- The best strategy is usually to keep existing facilities open until permanent facilities are complete, and permanent facilities should be phased into the project as early as possible.
- We're here to help -- Please don't hesitate to reach out with questions.

Please type any
questions you have
into the chat box!

Contact Information

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