



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 8, 2005

U.S. Army Corps of Engineers
Raleigh Field Office
6508 Falls of the Neuse Road, Suite 120
Raleigh, NC 27615

Attention: Mr. Eric C. Alsmeyer
NCDOT Coordinator, Division 5

Subject: **Permit Addendum for Section 404 Nationwide Permits 14 & 33 and Section 401 Water Quality Certification and Neuse Buffer Certification** for US 1/64 From US 64/SR 1009 (Tryon Road) Interchange to South of I-40 in Cary, Wake County; TIP No. U-3101C & D; State Project No. 8.1403101; Federal Aid Project No. STPNHF-1(4); USACE Action ID Nos. 200120922 & 200421562; NCDENR-DWQ Project No. 041055; WBS Element 34897.1.1.

Reference: United States Army Corps of Engineers (USACE) Nationwide Permits 14 & 33 (Action ID Nos. 200120922 & 200421562), dated September 10, 2004

North Carolina Division of Environment and Natural Resources, Division of Water Quality (NCDENR-DWQ) 401 Water Quality Certification Nos. 3404 & 3366 (NCDENR-DWQ Project No. 041055) and Neuse Buffer certification, dated August 27, 2004

NCDENR-DWQ 401 Water Quality Certification Nos. 3404 & 3366 Modifications (NCDENR-DWQ Project No. 041055) and Neuse Buffer certification Modification, dated October 5, 2004

The North Carolina Department of Transportation (NCDOT) – Division 5 has recently completed a pre-let environmental review associated with the widening of US 1/64 from US 64/SR 1009 (Tryon Road) Interchange to south of I-40 in Cary, Wake County. The pre-let review was based on the final roadway construction plan sheets and permit drawings that were attached to the permit applications dated June 18, 2004 and August 31, 2004.

The review identified all permit drawing and plan sheet discrepancies, as well as other associated constructability concerns that could be identified during the pre-let phase of this project. This Permit Addendum addresses the identified discrepancies and provides the

MAILING ADDRESS:
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PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
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LOCATION:
2728 CAPITAL BLVD.
PARKER LINCOLN BUILDING, SUITE 168
RALEIGH NC 27604

requested actions for reconciliation of the discrepancies. The following permit drawings/plan sheets are included with this permit addendum:

- Plan Sheets 2-TT, 2-UU, 2-VV, 2-WW, and 2-XX
- Permit Drawings - Sheets 9 of 21, 13 of 21, and 18A of 21
- Buffer Permit Drawings - Sheets 10 of 19 and 12 of 19
- Plan & Profile Sheets (Fairfield Pump Station), Sheets 3 of 5 and 4 of 5

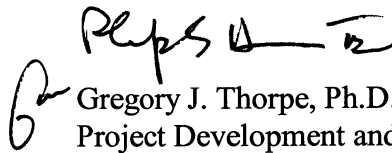
The NCDOT respectfully requests that the USACE address the following actions and incorporate the attached permit drawings/plan sheets into the referenced permits/certifications:

1. Delete Plan Sheet No. 2-F (Site One Stream Relocation) from the permit and replace with Plan Sheet No. 2-TT (dated 25-FEB-2005). This action will allow for depiction of the correct Station numbers on Detail U-1 [STA 16+96 -L- to STA 17+60 -L- (left)], will eliminate a second Detail U-1 and Detail U-2 that were incorrectly included on Plan Sheet No. 2-F, and will also allow for proper correlation of Detail W to Detail U-1.
2. Delete second Plan Sheet No. 2-F (Site One Stream Relocation) from the permit and replace with Plan Sheet No. 2-UU (dated 25-FEB-2005). This action will allow for depiction of the correct Station numbers on Detail F [STA 17+60 -L- to STA 20+00 -L- (left)].
3. Replace permit drawings Sheet 9 of 21 (stream drawing) and Sheet 10 of 19 (buffer drawing) with revised Sheets 9 of 21 (rev. 2-25-05) and 10 of 19 (rev. 2-25-05), respectively. These actions will allow for the correct depiction of 2GI and 375-mm pipe at Station 36+35 Left.
4. Incorporate Plan Sheet Nos. 2-VV, 2-WW, and 2-XX into the permit as additions to the existing plan sheets. These plan sheets depict the final flow splitter details as finalized by the Project Services Branch of the NCDOT. The Details specify the quantities of steel, concrete, and/or brick, and other items associated with construction of the riser and splitter boxes.
5. Replace permit drawings Sheet 13 of 21 (stream drawing) and Sheet 12 of 19 (buffer drawing) with revised Sheet 13 of 21 (rev. 2-25-05) and Sheet 12 of 19 (rev. 2-25-05), respectively. These actions will allow for the depiction of 2GI at Station 42+68 Left, which was not included on the original drawings. NOTE: no additional stormwater will be added to the PFSH via the drainage system.
6. Replace permit drawing Sheet 18A of 21 with revised Sheet 18A of 21 (rev. 2-25-05). This action will allow for the inclusion of a reference for Detail J1 (installation of toe wall protection), which was not included on the original drawing. The addition of Detail J1 has been incorporated on to Plan Sheet 2-UU, which has already been noted to be included with the attachments (see Item No. 2).
7. Replace Fairfield Pump Station Plan & Profile Sheets 3 of 5 and 4 of 5 with revised Fairfield Pump Station Sheets 3 of 5 and 4 of 5 (rev. 2-7-05). The drawing revision depicts the new location of a manhole and sewer line. No new riparian buffer impacts will result from the shift of the manhole and sewer line.

Resolution of the permit drawing/plan sheet discrepancies does not result in any changes to the permitted jurisdictional wetland, stream, or buffer impacts. As such, a permit modification is not warranted. The information contained in this letter, along with the attached drawings/plan sheets, has been provided as a Permit Addendum. Seven (7) copies of this letter are being provided to NCDENR-DWQ for their use.

Thank you for your assistance with this project. If you have any questions or need additional information, please call Bill Barrett at (919) 715-1624.

Sincerely,


Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Branch

cc: w/attachment

John Hennessy, NCDENR-DWQ

Travis Wilson, NCWRC

Gary Jordan, USFWS

David Chang, P.E., Hydraulics Unit

Greg Perfetti, P.E., Structure Design

John G. Nance, P.E., Division 5 Engineer

Chris Murray, Division 5 DEO

Donald Pearson, Roadside Environmental Unit

Cadmus Capehart, Division 5 Aviation Parkway Resident Engineer's Office

Bob Shultes, Division 5 Aviation Parkway Resident Engineer's Office

w/o attachment

Jay Bennett, P.E., Roadway Design

Omar Sultan, Programming and TIP

Art McMillan, P.E., Highway Design

Mark Staley, Roadside Environmental

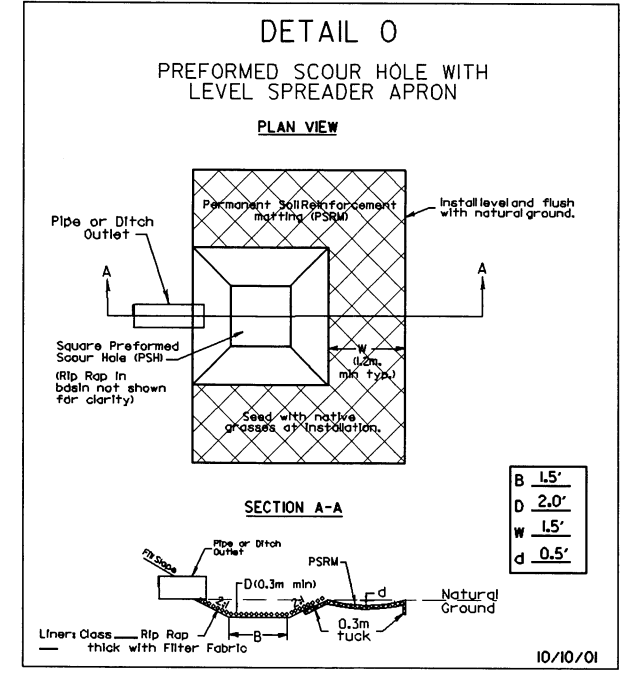
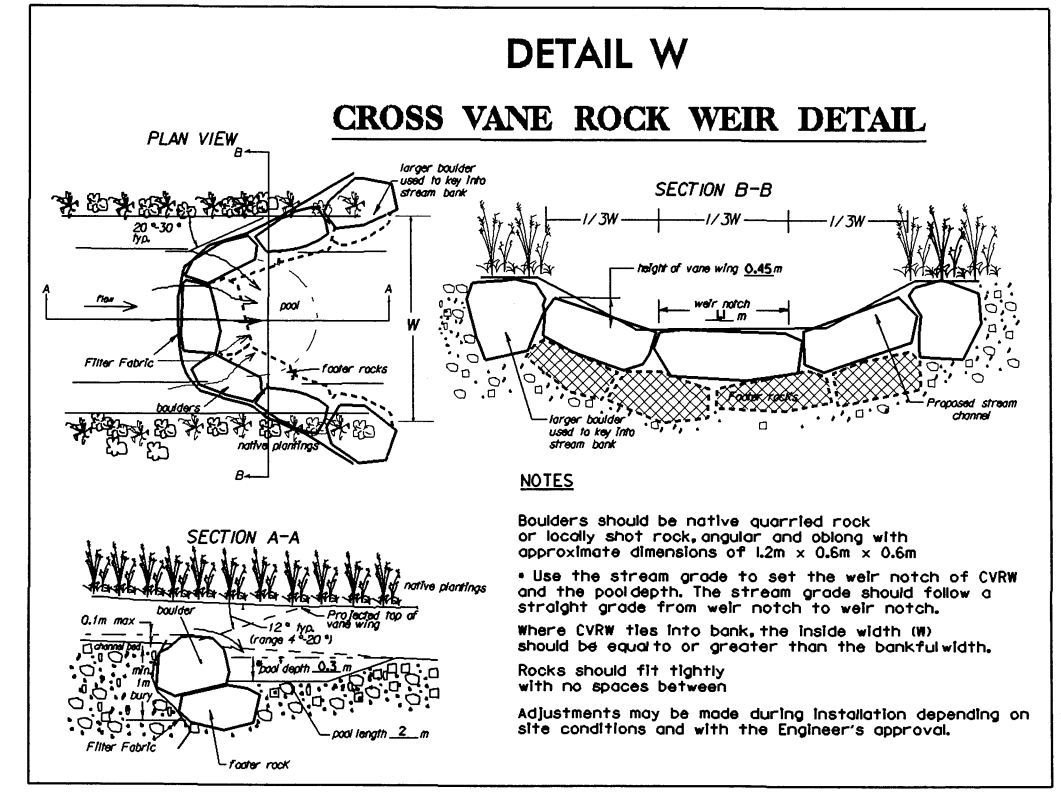
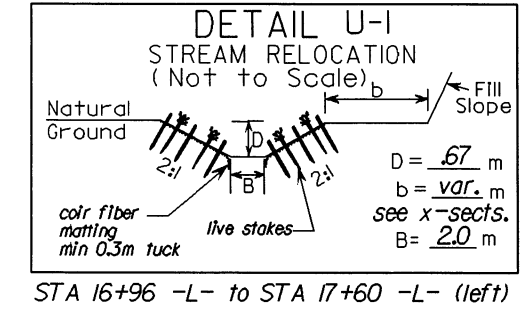
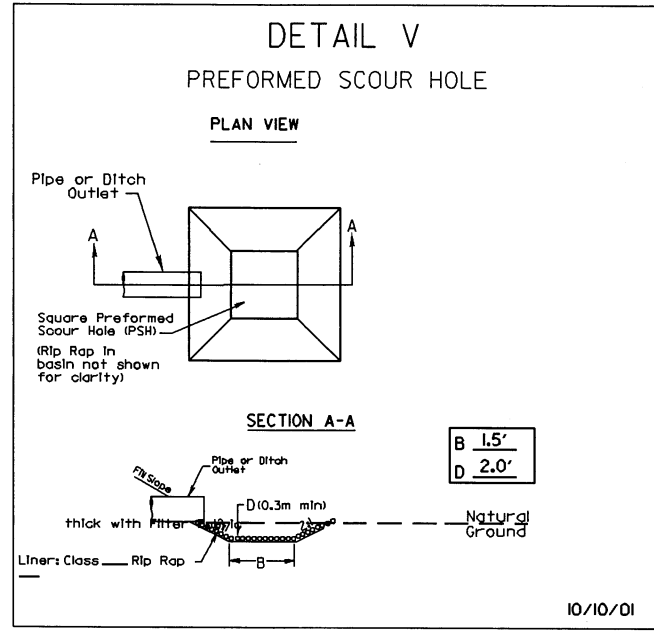
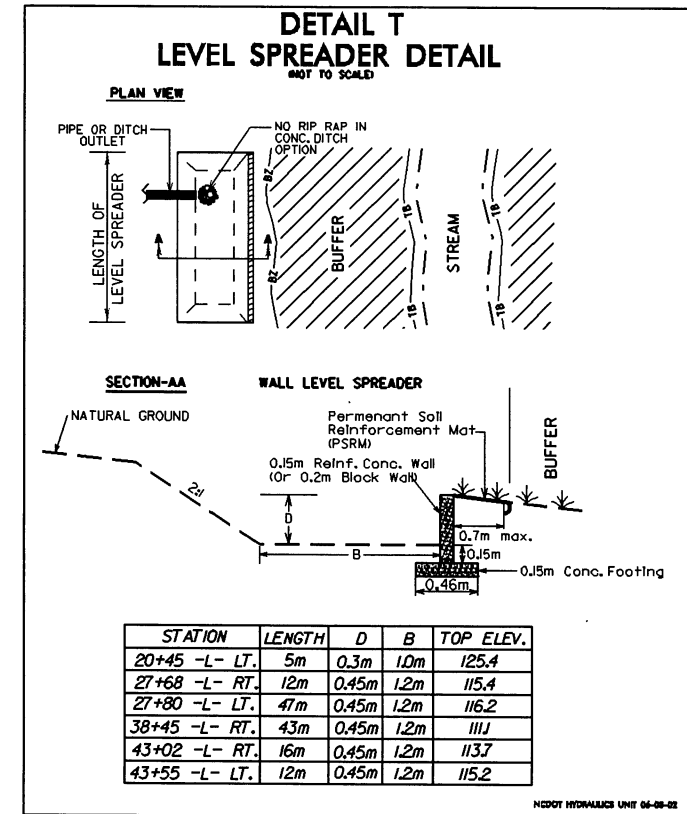
David Franklin, USACE, Wilmington

Richard Brewer, P.E., Project Planning Engineer


Beth Harmon, EEP

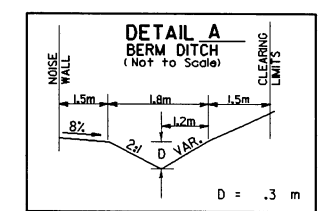


PROJECT REFERENCE NO. U-310IC&D	SHEET NO. 2-TT
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV. 2-25-05	
R/W REV.	

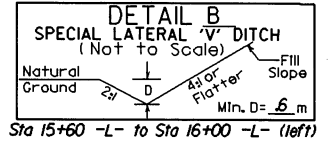


STATIONS DELETED FROM "W" BY SRM 3-07-05
 STATIONS REVISED ON U-BY SRM 2-25-05
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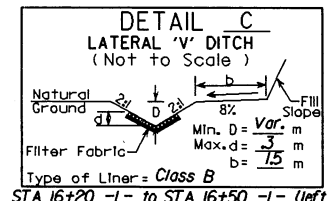
	PROJECT REFERENCE NO.	SHEET NO.
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R/W REV.		



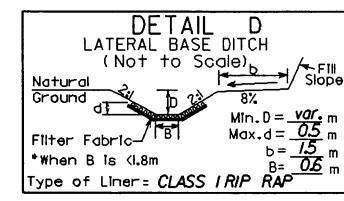
Sta 13+40 -L- to Sta 16+20 -L- (left)
Sta 39+40 -L- to Sta 41+80 -L- (left)
Sta 44+00 -L- to Sta 52+20 -L- (left)



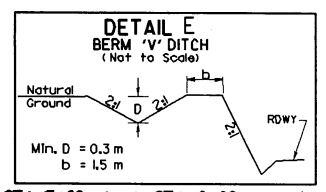
Sta 15+60 -L- to Sta 16+00 -L- (left)



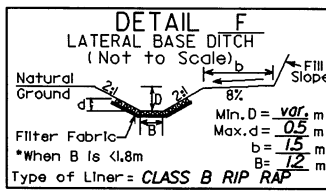
Sta 16+20 -L- to Sta 16+50 -L- (left)
Sta 35+20 -L- to Sta 35+60 -L- (right)
Sta 26+60 -L- to Sta 27+00 -L- (right)



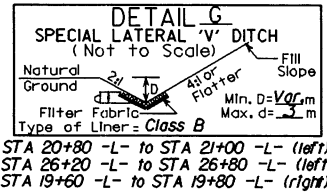
Sta 2+00 CPRPA to Sta 2+60 CPRPA (rt)
Sta 27+80 to Sta 28+60 -L- RT.
Sta 43+20 to Sta 44+00 -L- RT.
(USE B=4m @ STA 43+20 -L- RT.)



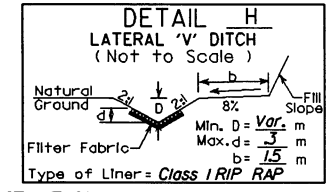
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Sta 22+80 -L- to Sta 23+40 -L- (left)



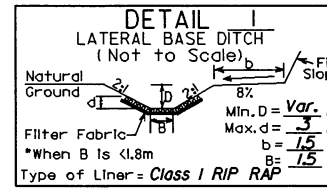
Sta 17+60 -L- to Sta 20+00 -L- (left)



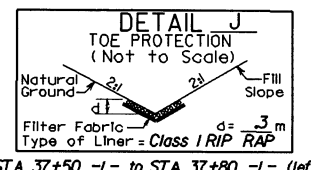
Sta 20+80 -L- to Sta 21+00 -L- (left)
Sta 26+20 -L- to Sta 26+80 -L- (left)
Sta 19+60 -L- to Sta 19+80 -L- (right)



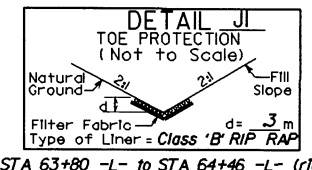
Sta 47+80 -L- to Sta 48+00 -L- (right)
Sta 42+60 -L- to Sta 42+92 -L- (left)



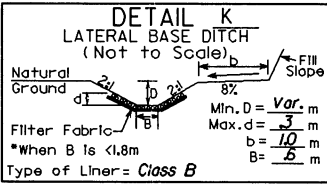
Sta 27+90 -L- to Sta 28+60 -L- (left)
Sta 11+00 to Sta 11+60 -RPBWS- LT.



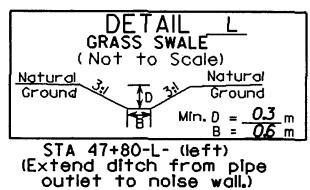
Sta 37+50 -L- to Sta 37+80 -L- (left)
Sta 16+50 -L- to Sta 16+73-L- (lt)
Sta 11+55 CPLPA to Sta 11+65 CPLPA (rt)
Sta 2+70 CPRPA to Sta 3+20 CPRPA (rt)
Sta 11+40 to Sta 11+60 -LPBWS- RT.



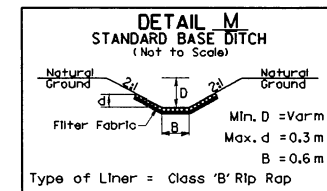
Sta 63+80 -L- to Sta 64+46 -L- (right)



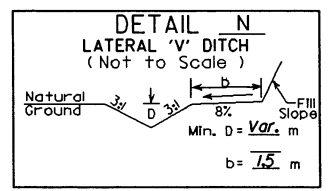
Sta 38+60 -L- to 40+00 -L- (right)
USE B=3.0m @ Sta 38+60 -L- RT.
Sta 26+80 -L- to 27+10 -L- (lt)



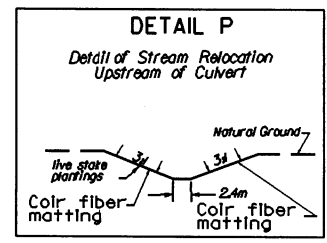
Sta 47+80-L- (left)
(Extend ditch from pipe outlet to noise wall.)
Sta 13+70 to Sta 14+40 -L- RT.



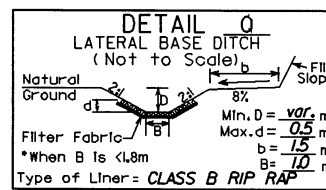
Type of LIner = Class 'B' Rip Rap
0.6m base ditch at Sta 50+75 -L- (left)



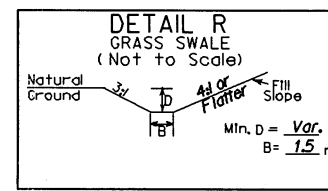
Sta 49+20 to Sta 49+40 -L- RT.



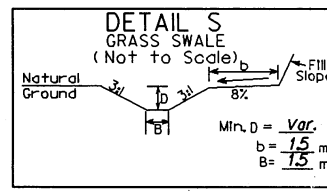
Sta. 27+48 -L- LT.
Sta 37+80 -L- LT.



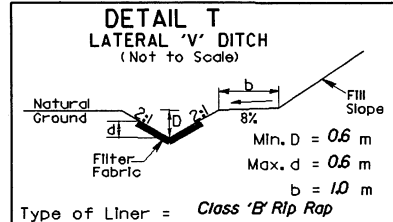
Sta 43+20 -L- to Sta 44+00 -L- (lt)



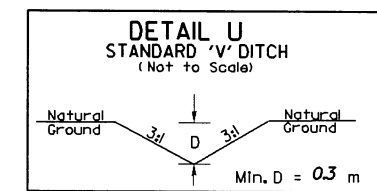
Sta 12+00 to Sta 12+80 -RPBWS- LT
Sta 11+80 to Sta 12+92 -LPBWS- RT.
Sta 11+00 to Sta 11+35 -LPBWS- RT.



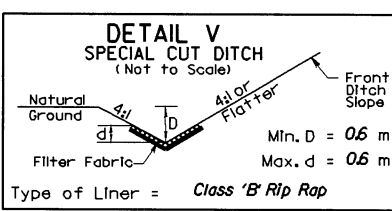
Sta 11+60 to Sta 12+00 -RPBWS- LT.
Sta 37+80 to Sta 39+20 -L- LT.



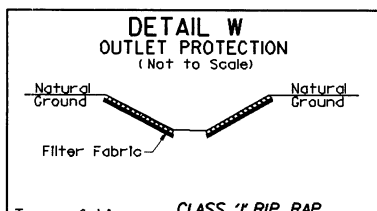
Type of LIner = Class 'B' Rip Rap
From 11+40 to 11+60 RPBWS LT.



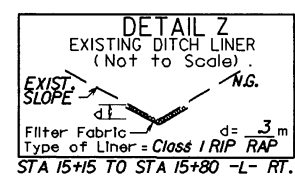
FROM STA 12+40 TO STA 12+60 -CPRPB- LT.



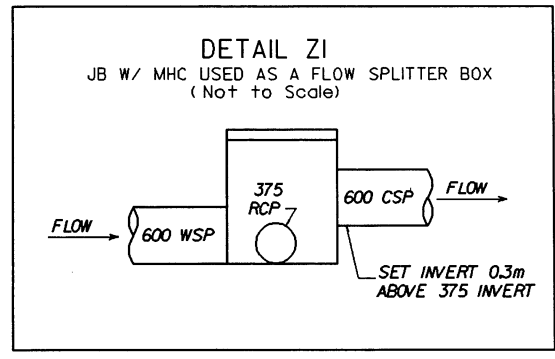
Type of LIner = Class 'B' Rip Rap
From 11+80 to 12+00 RPBWS LT.



Type of LIner = CLASS 'I' RIP RAP
Sta 11+36 -RPBWS- LT
Sta 11+70 -LPBWS- LT.

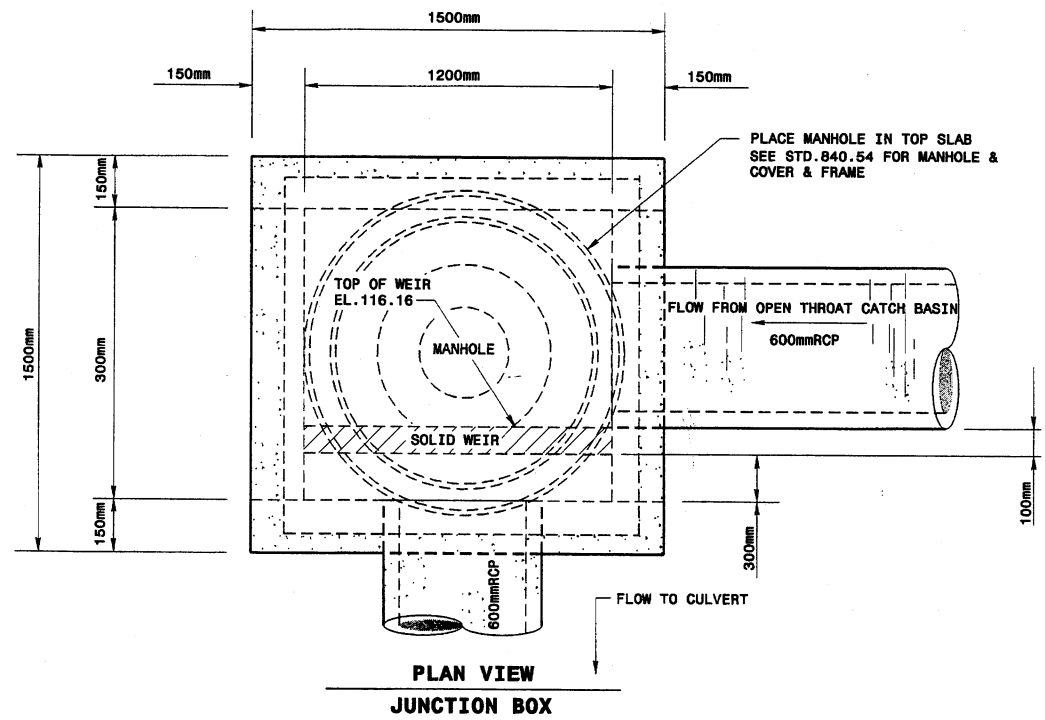


Sta 15+15 to Sta 15+80 -L- RT.

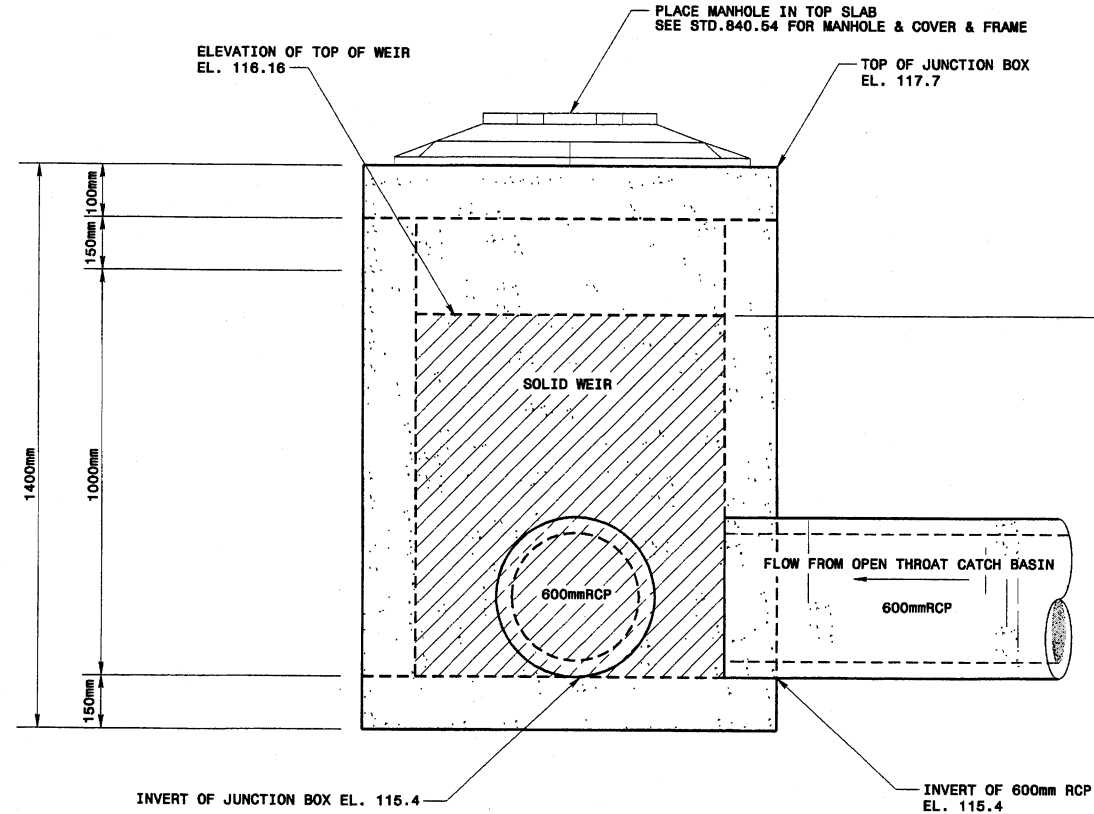


Sta 15+80 -L- RT.

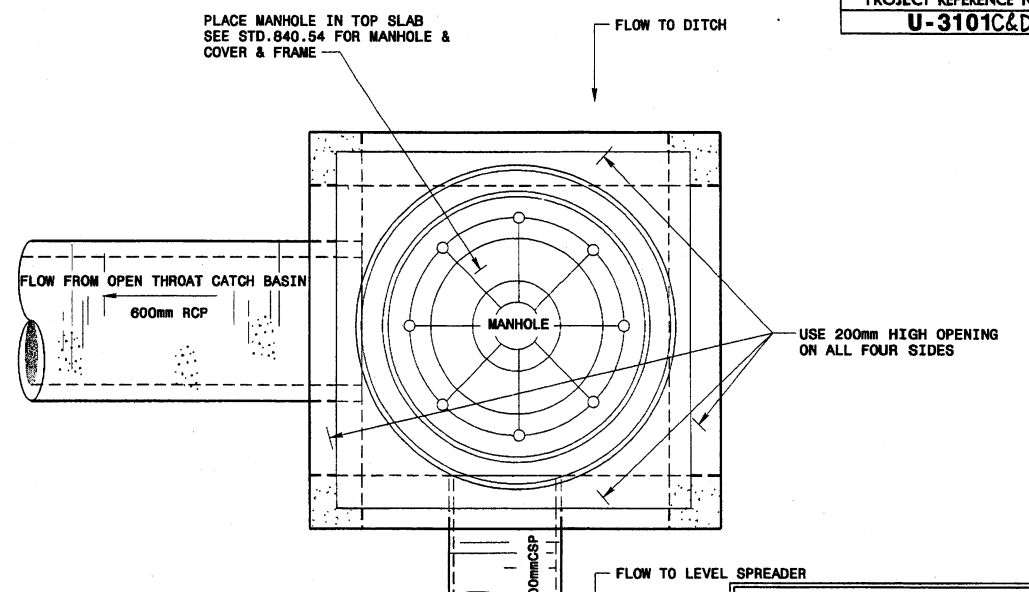
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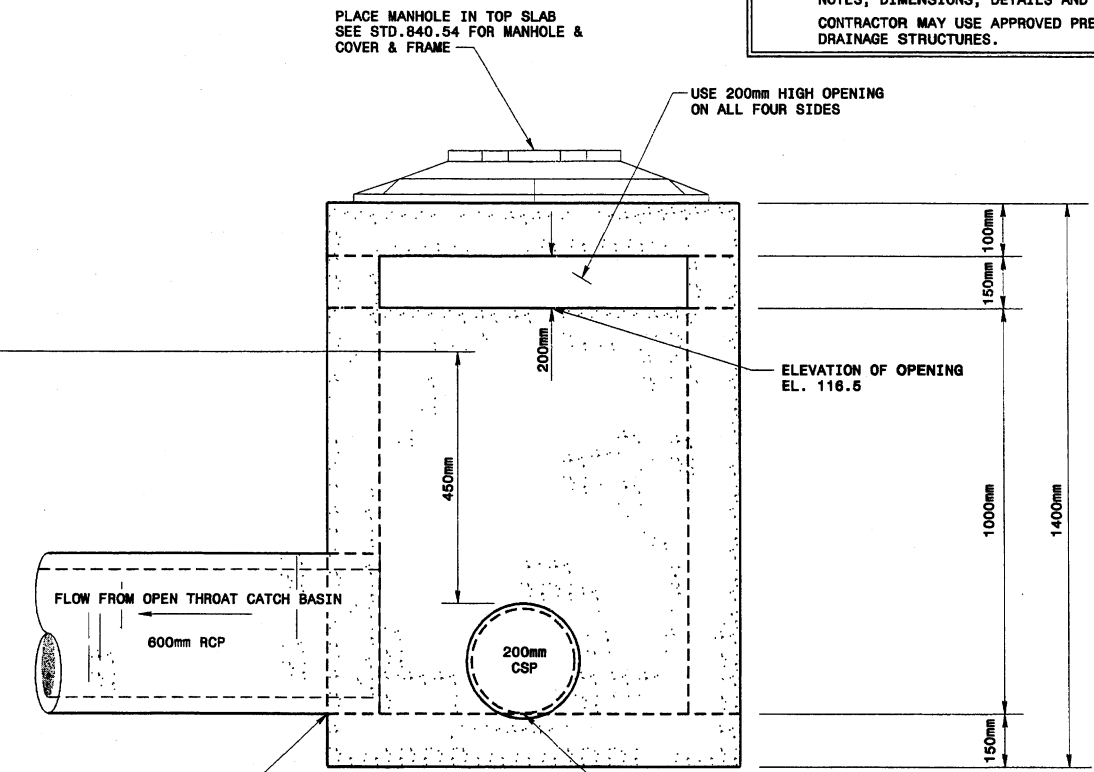
PLAN VIEW
JUNCTION BOX



ELEVATION
JUNCTION BOX



PLAN VIEW
OPEN THROAT CATCH BASIN



ELEVATION
OPEN THROAT CATCH BASIN

NOTE: ELEVATIONS SHOWN MAY VARY DEPENDING ON ACTUAL FIELD ELEVATIONS. DIMENSIONS SHOULD NOT VARY.
* CRITICAL DIMENSIONS: TOP OF WEIR NEEDS TO BE 450mm ABOVE TOP OF 200mm CSP
SEE STD. NO. 840.04 FOR DRAINAGE STRUCTURE NOTES, DIMENSIONS, DETAILS AND QUANTITIES.
CONTRACTOR MAY USE APPROVED PRECAST CONCRETE DRAINAGE STRUCTURES.

**SPECIAL JUNCTION BOX AND OPEN THROAT CATCH BASIN
STA. 27+80-L- RT.**

Note:
This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.

DESIGN SERVICES UNIT
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Office 919-250-4128 FAX 919-250-4119

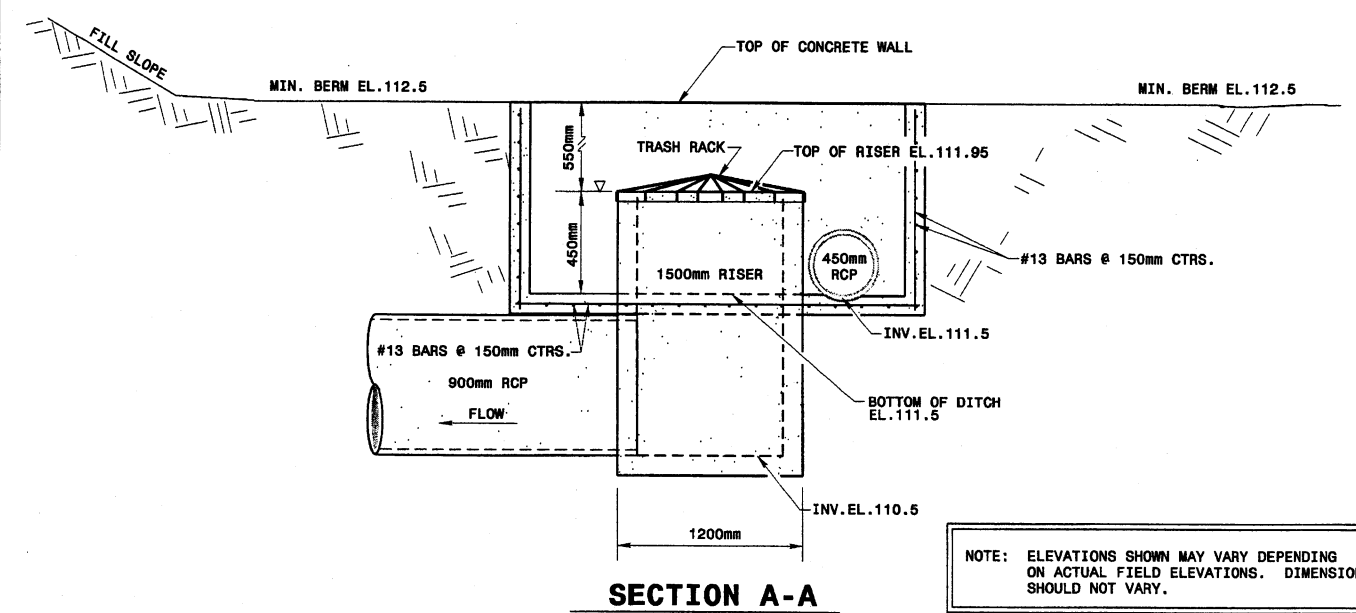
**JUNCTION BOX AND
OPEN THROAT CATCH BASIN**

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 09-01-04
CHECKED BY: [Signature] DATE: 7/2/04
FILE SPEC.: details/nbritt/metric/murban/u3101rusers.dgn

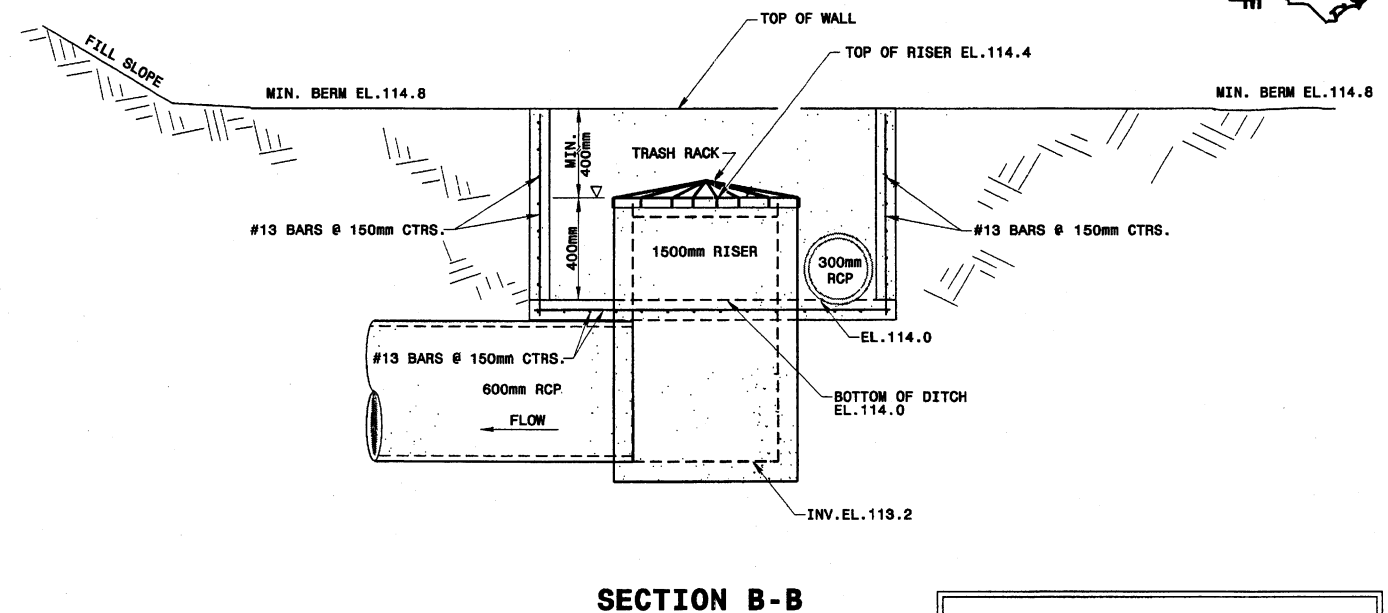


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 RNB-itt AT 05203035

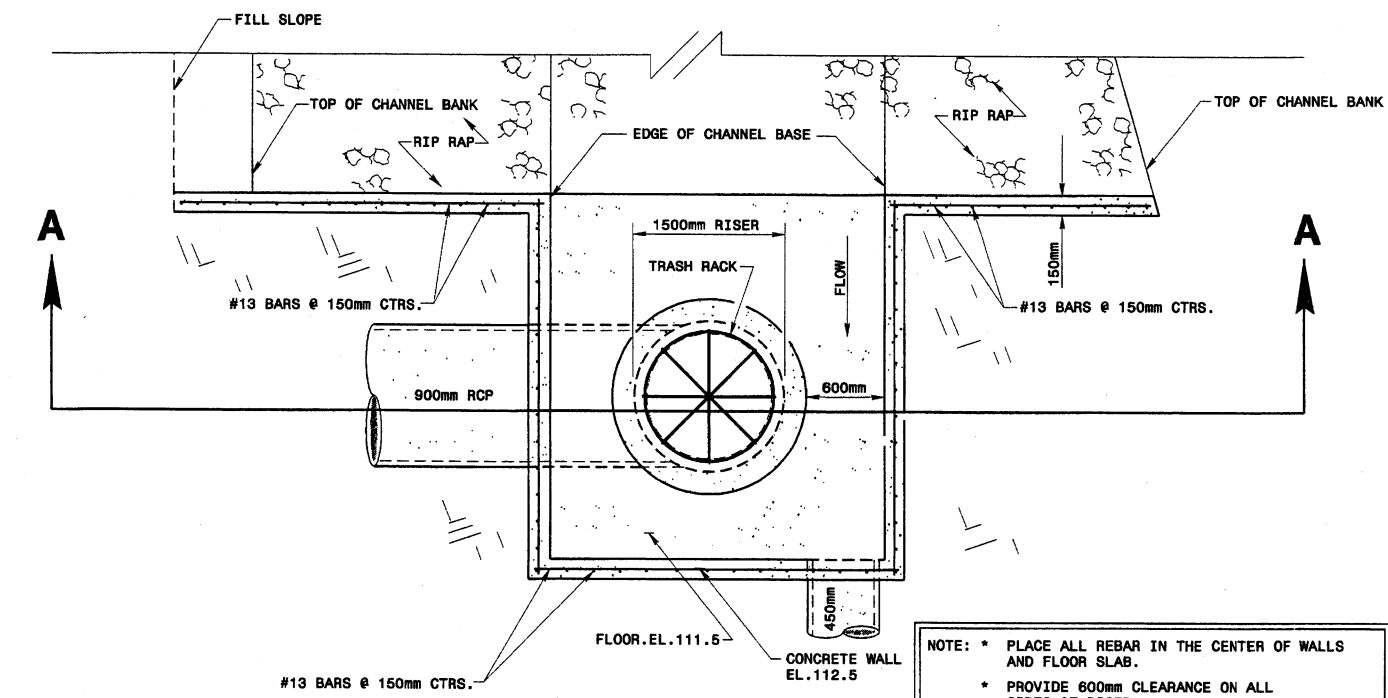
RNB/STANDARDS/DETAILS



NOTE: ELEVATIONS SHOWN MAY VARY DEPENDING ON ACTUAL FIELD ELEVATIONS. DIMENSIONS SHOULD NOT VARY.



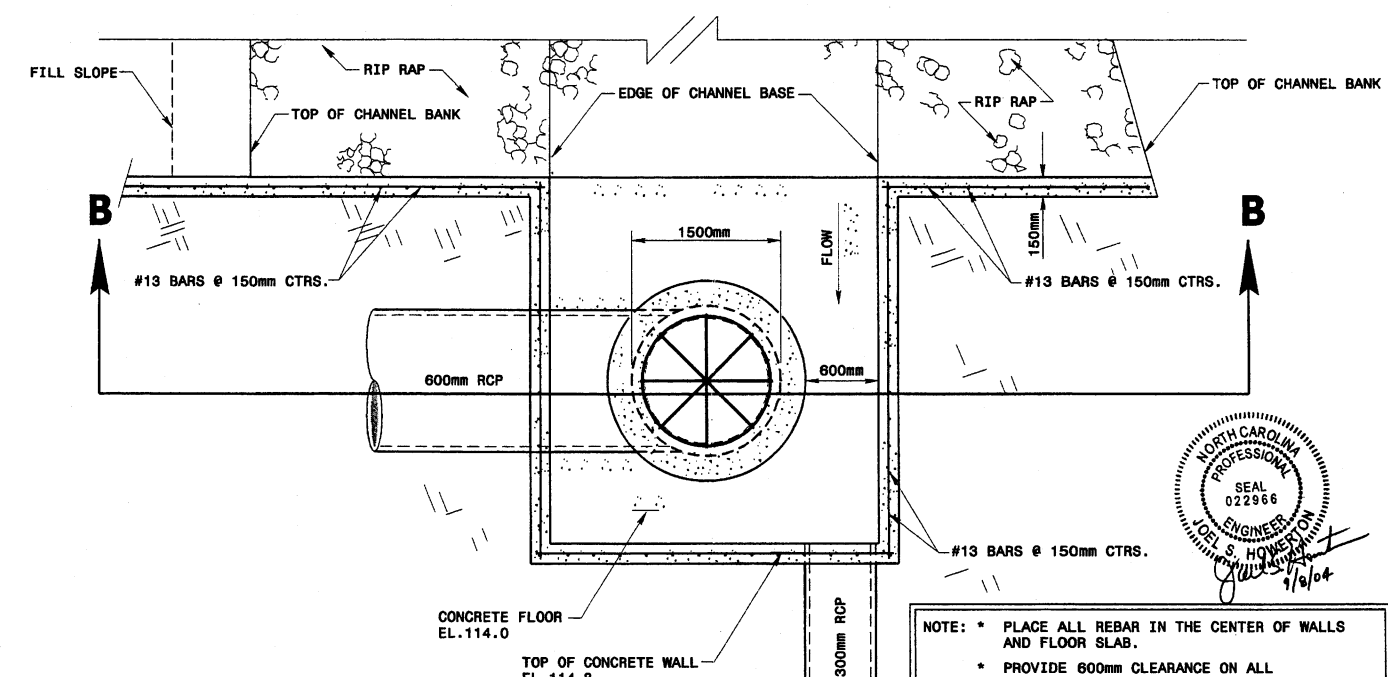
NOTE: ELEVATIONS SHOWN MAY VARY DEPENDING ON ACTUAL FIELD ELEVATIONS. DIMENSIONS SHOULD NOT VARY.



NOTE: * PLACE ALL REBAR IN THE CENTER OF WALLS AND FLOOR SLAB.
 * PROVIDE 600mm CLEARANCE ON ALL SIDES OF RISER.
 * A SQUARE RISER IS ALLOWED.
 * THE INSIDE DIMENSIONS OF A SQUARE RISER WOULD BE 1200mm X 1200mm.
 * THE FLOOR SHALL BE A MINIMUM OF 150mm REINFORCED CONCRETE. THE WALLS MAY BE REINFORCED CONCRETE, BRICK OR JUMBO BRICK.
 * WALL THICKNESS WILL BE 200mm FOR BRICK OR JUMBO BRICK.

**1.2m X 1.2m RISER W/450 LOW FLOW PIPE
 STA. 38+62-L- RT.**

Note: This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.



NOTE: * PLACE ALL REBAR IN THE CENTER OF WALLS AND FLOOR SLAB.
 * PROVIDE 600mm CLEARANCE ON ALL SIDES OF RISER.
 * A SQUARE RISER IS ALLOWED.
 * THE INSIDE DIMENSIONS OF A SQUARE RISER WOULD BE 1200mm X 1200mm.
 * THE FLOOR SHALL BE A MINIMUM OF 150mm REINFORCED CONCRETE. THE WALLS MAY BE REINFORCED CONCRETE, BRICK OR JUMBO BRICK.
 * WALL THICKNESS WILL BE 200mm FOR BRICK OR JUMBO BRICK.

**1.2m X 1.2m RISER W/300 LOW FLOW PIPE
 STA. 43+20-L- RT.**

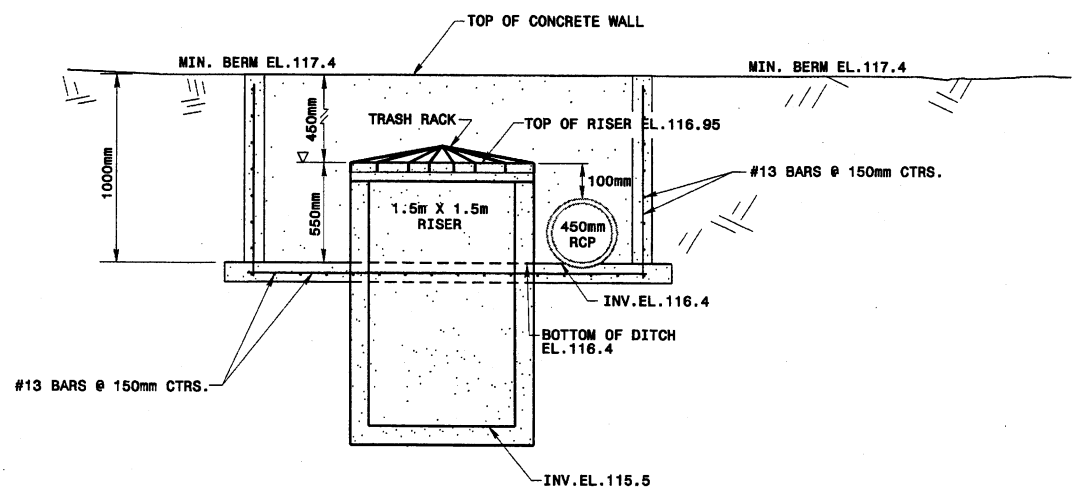
DESIGN SERVICES UNIT
 STANDARDS AND SPECIAL DESIGN
 Office 919-250-4128 FAX 919-250-4119

RISERS

ORIGINAL BY: rnbritt DATE: 09-01-04
 MODIFIED BY: rnbritt DATE: 11/2/04
 CHECKED BY: J. S. HOWERTON DATE: 1/12/04
 FILE SPEC.: details/rnbritt/metric/surban/u3101risers.dgn

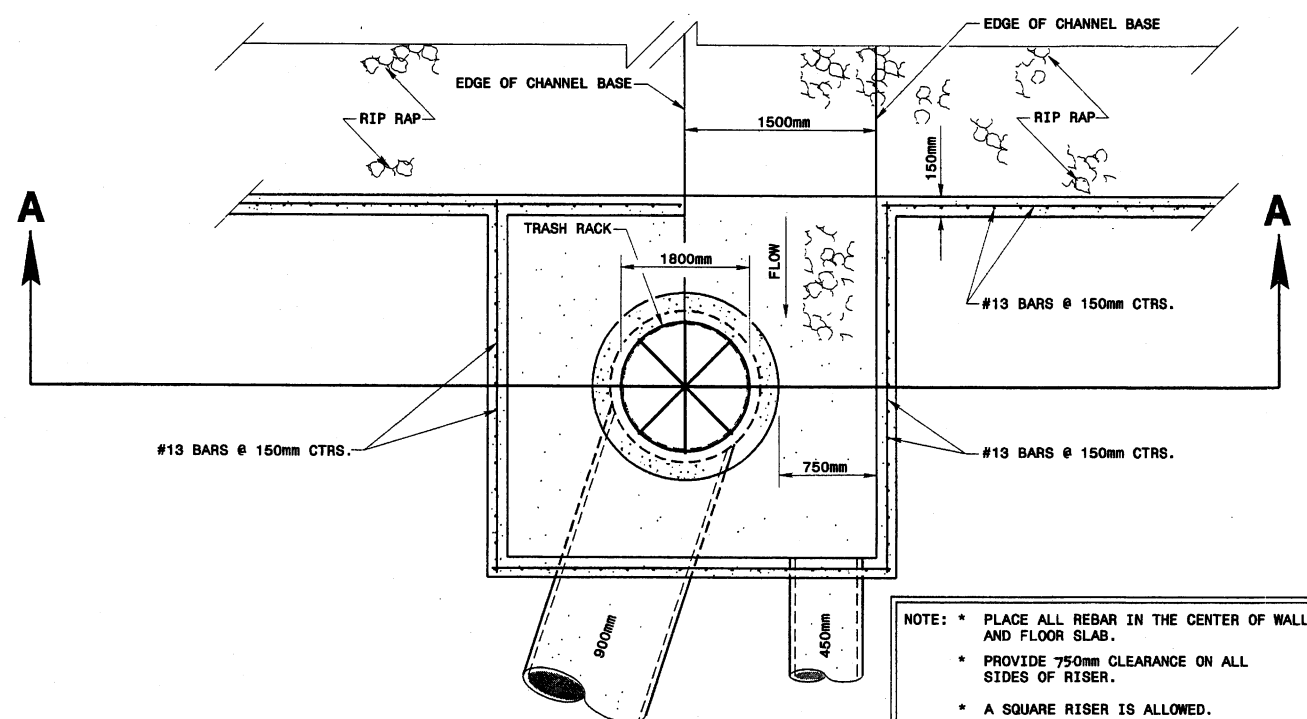
01-SEP-2004 15:26
 rnbritt\pcc\at\murban\3101r-isers.dgn
 RNB/TT/STANDARDS/DETAILS





SECTION A-A

NOTE: ELEVATIONS SHOWN MAY VARY DEPENDING ON ACTUAL FIELD ELEVATIONS. DIMENSIONS SHOULD NOT VARY.
HEADWALL MAY BE USED FOR INLET END OF 450mm PIPE IF NEEDED.

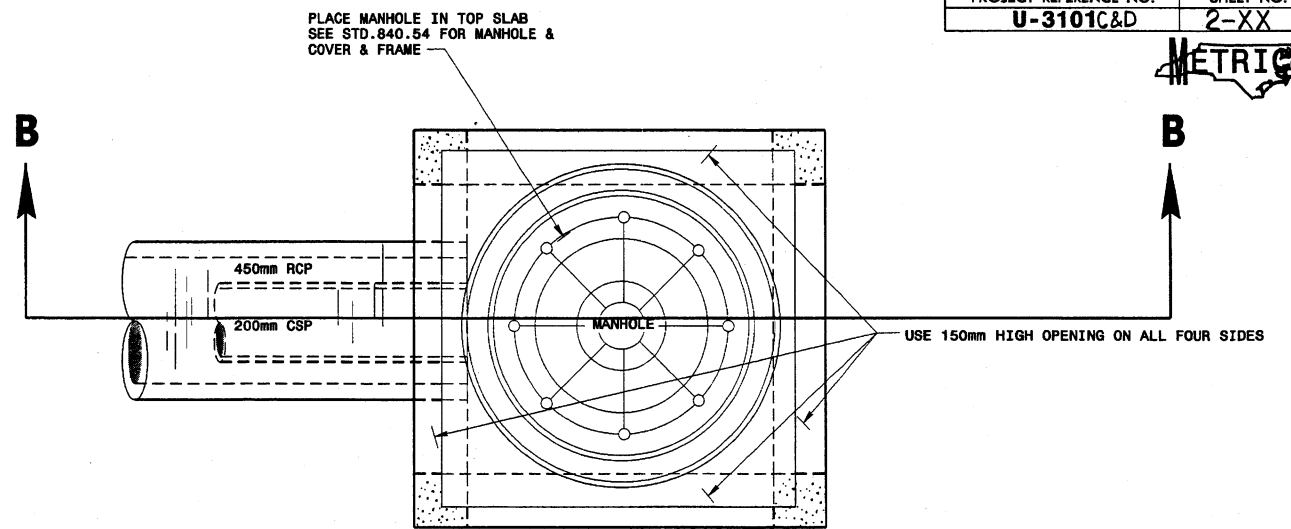


PLAN VIEW

NOTE: * PLACE ALL REBAR IN THE CENTER OF WALLS AND FLOOR SLAB.
* PROVIDE 750mm CLEARANCE ON ALL SIDES OF RISER.
* A SQUARE RISER IS ALLOWED.
* THE INSIDE DIMENSIONS OF A SQUARE RISER WOULD BE 1500mm X 1500mm.
* THE FLOOR SHALL BE A MINIMUM OF 150mm REINFORCED CONCRETE. THE WALLS MAY BE REINFORCED CONCRETE, BRICK OR JUMBO BRICK.
* WALL THICKNESS WILL BE 200mm FOR BRICK OR JUMBO BRICK.

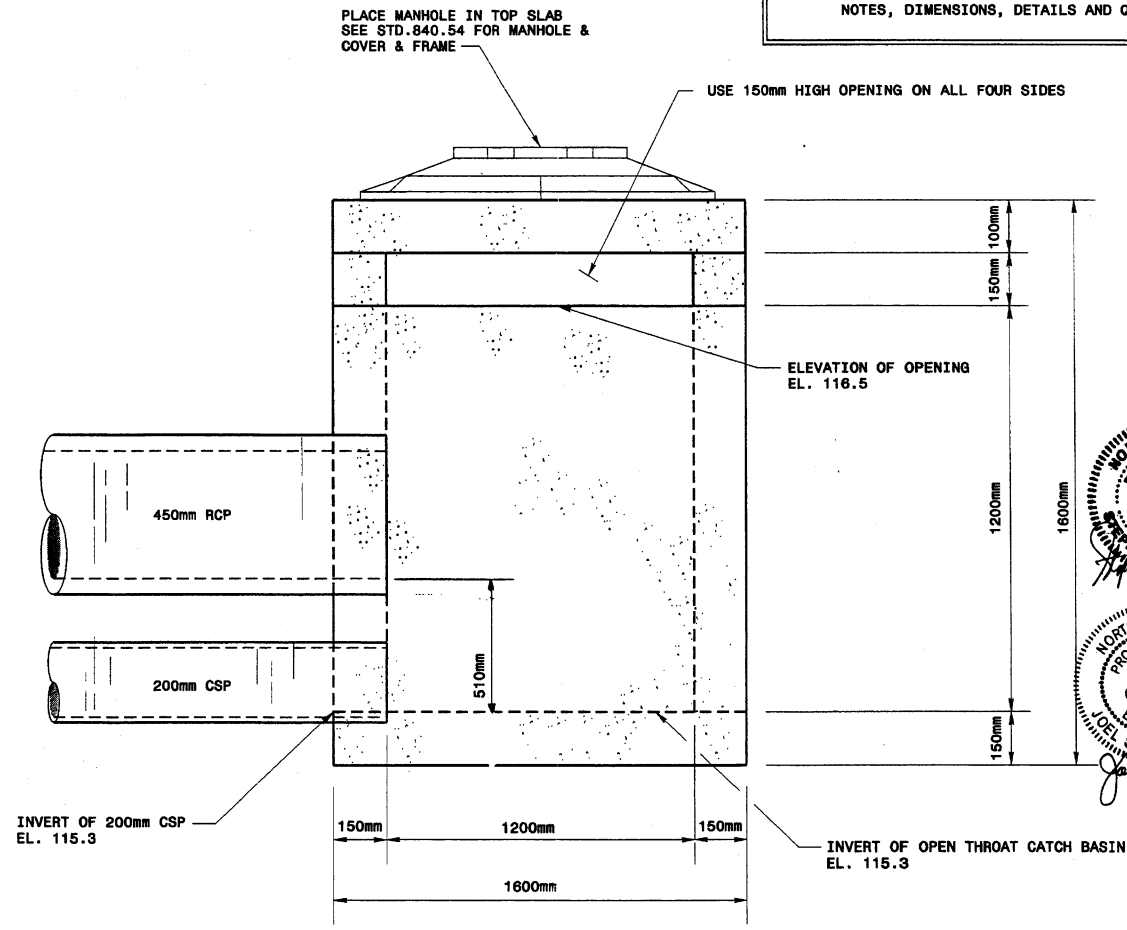
**1.5m X 1.5m RISER W/450 LOW FLOW PIPE
STA. 27+90-L- LT.**

Note: This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.



PLAN

NOTE: ELEVATIONS SHOWN MAY VARY DEPENDING ON ACTUAL FIELD ELEVATIONS. DIMENSIONS SHOULD NOT VARY.
SEE STD. NO. 840.04 FOR DRAINAGE STRUCTURE NOTES, DIMENSIONS, DETAILS AND QUANTITIES.



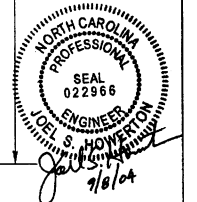
SECTION B-B

**SPECIAL OPEN THROAT CATCH BASIN
STA. 43+80-L- LT.**

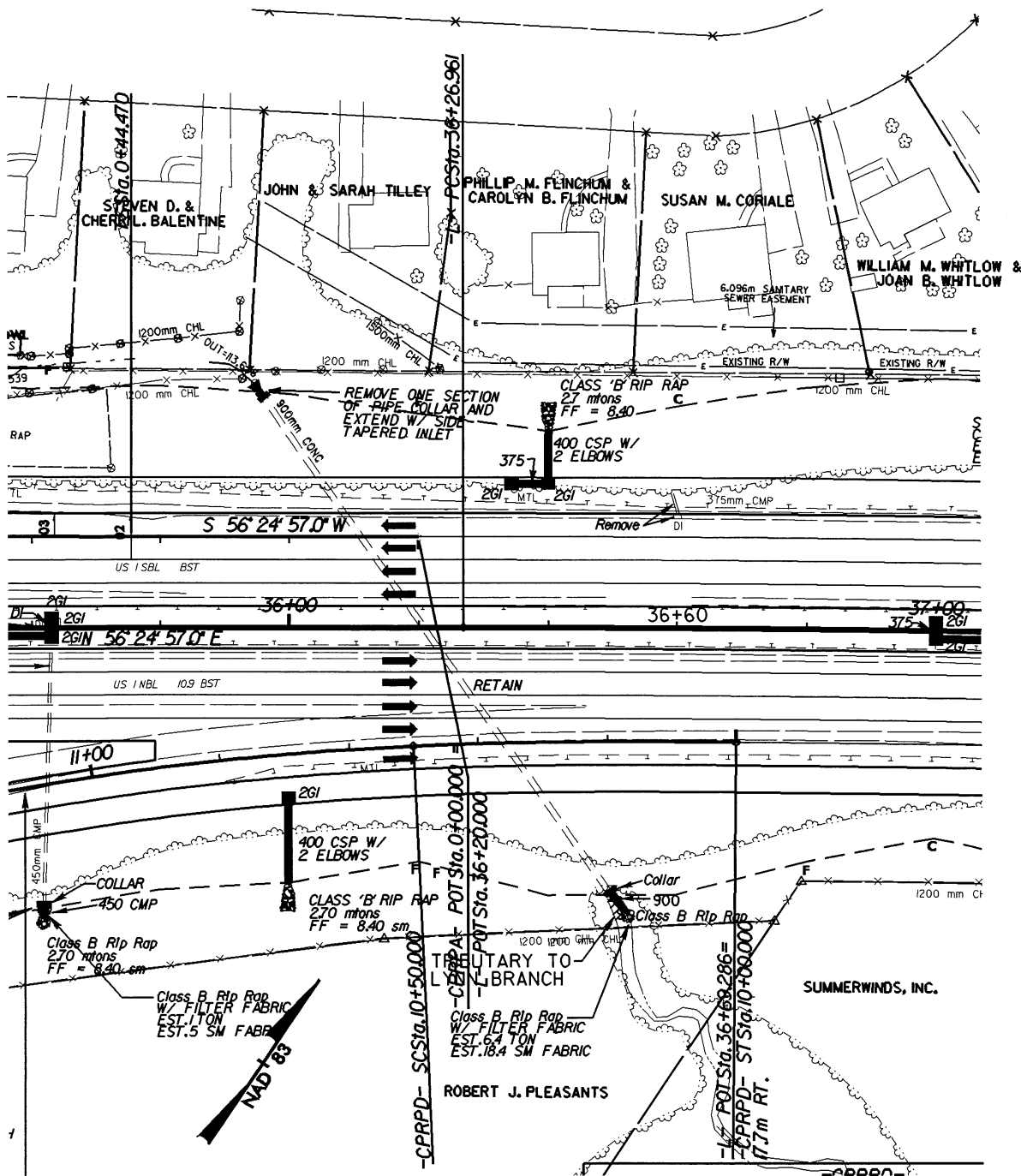
DESIGN SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

**RISER AND
OPEN THROAT CATCH BASIN**

ORIGINAL BY: rnbritt DATE: 09-01-04
MODIFIED BY: [Signature] DATE: 9/2/04
CHECKED BY: [Signature] DATE: 9/2/04
FILE SPEC.: 4611s/rnbritt/metric/murben/u3101risers.dgn



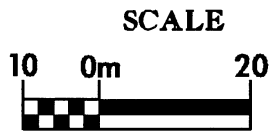
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 RNBritt AT 05203039
 RNBritt STANDARDSDETAILS

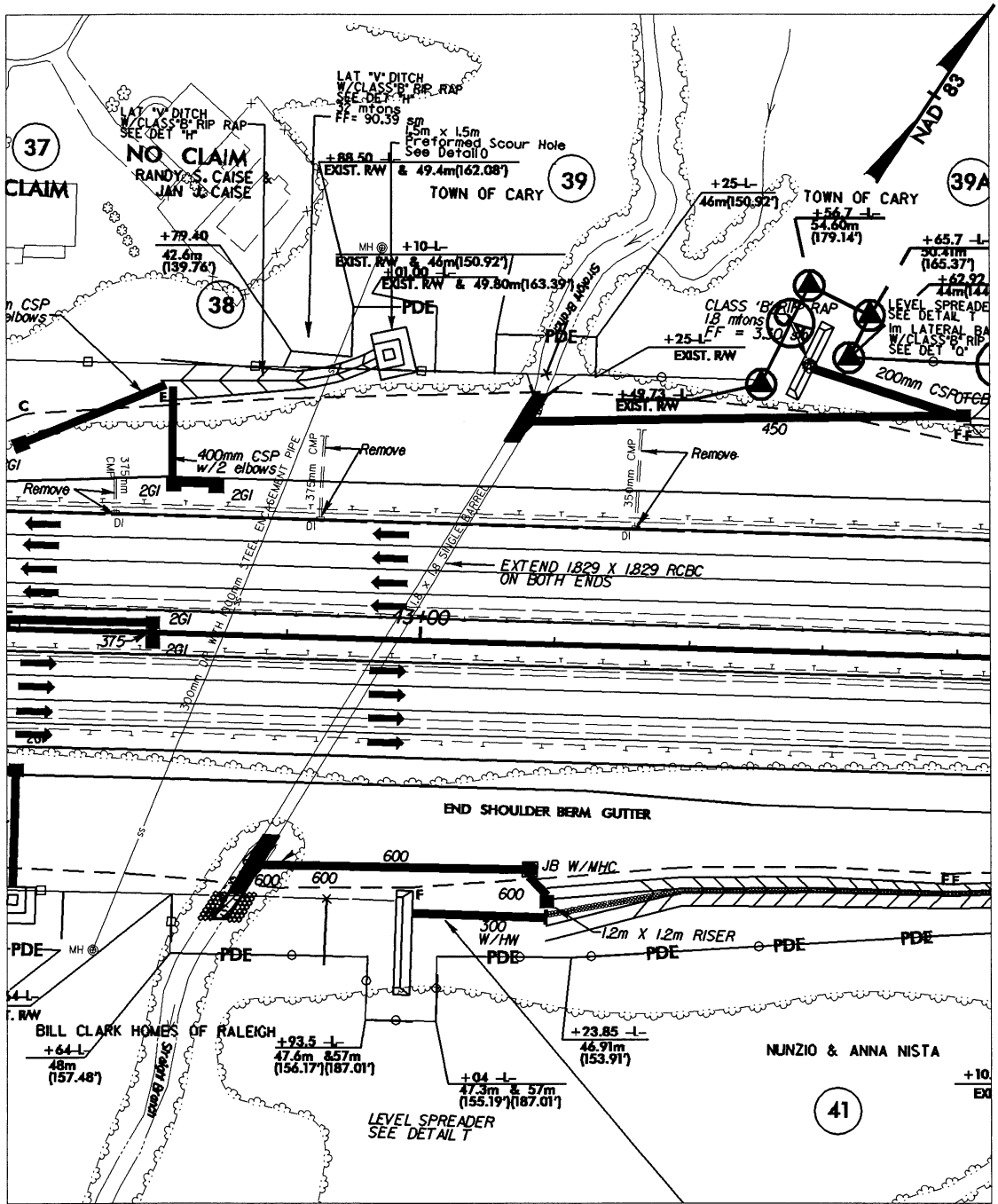


SITE 3
PLAN VIEW

NCDOT
DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.1403101 (U-3101)
US 1/64 FROM US 1/64/SR1009
(TRYON RD.) INTERCHANGE TO
SOUTH OF I-40 IN CARY
SHEET 9 OF 21
rev. 2-25-05
6-11-04

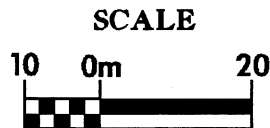
 DENOTES FILL IN SURFACE WATER



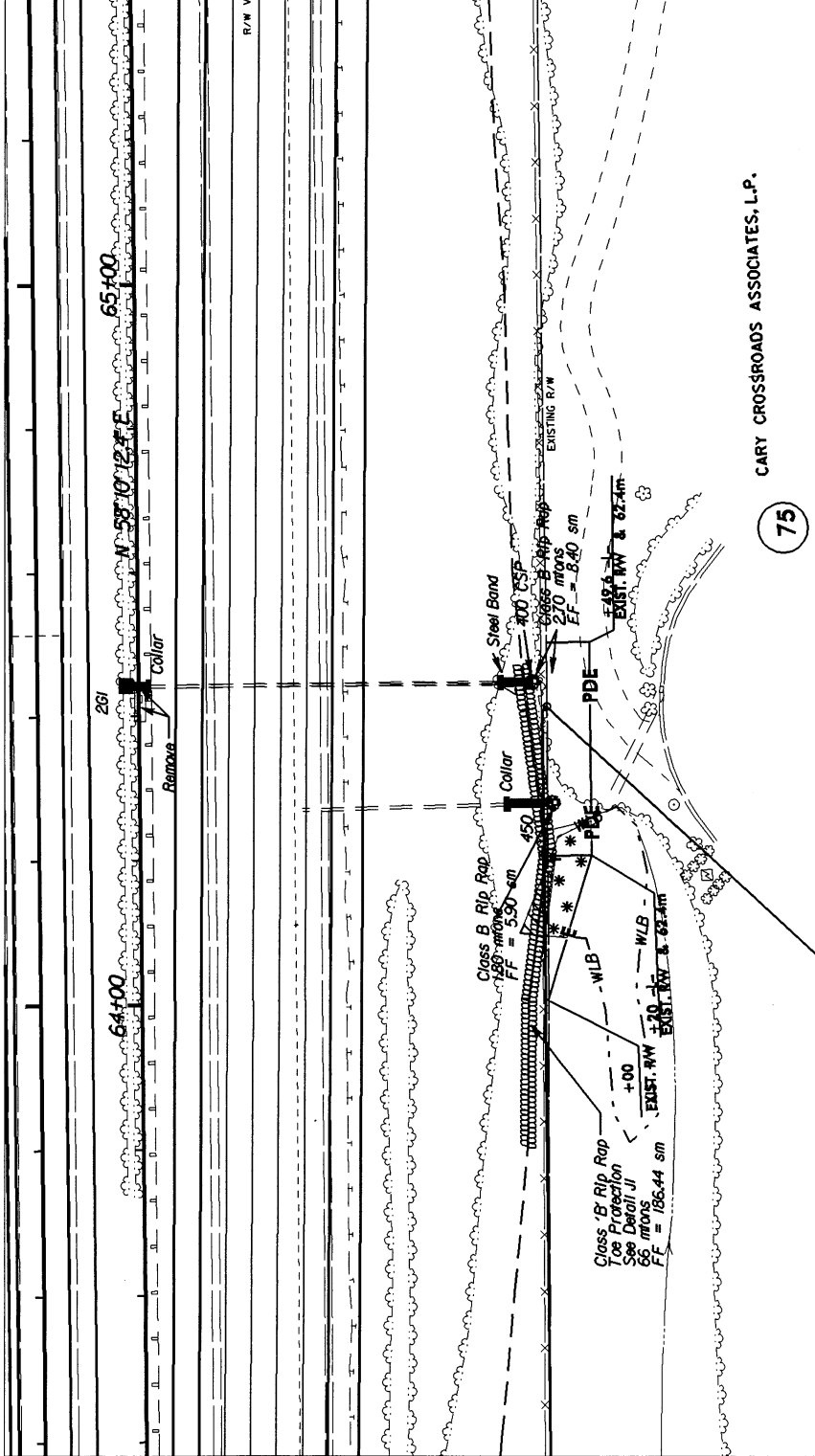


SITE 5
PLAN VIEW

 DENOTES FILL IN SURFACE WATER



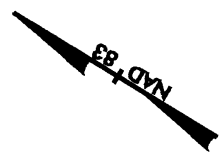
NCDOT
DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.1403101 (U-3101)
US 1/64 FROM US 1/64/SR1009
(TRYON RD.) INTERCHANGE TO
SOUTH OF I-40 IN CARY
SHEET 13 OF 21
rev. 2-25-05
6-11-04



CARY CROSSROADS ASSOCIATES, L.P.

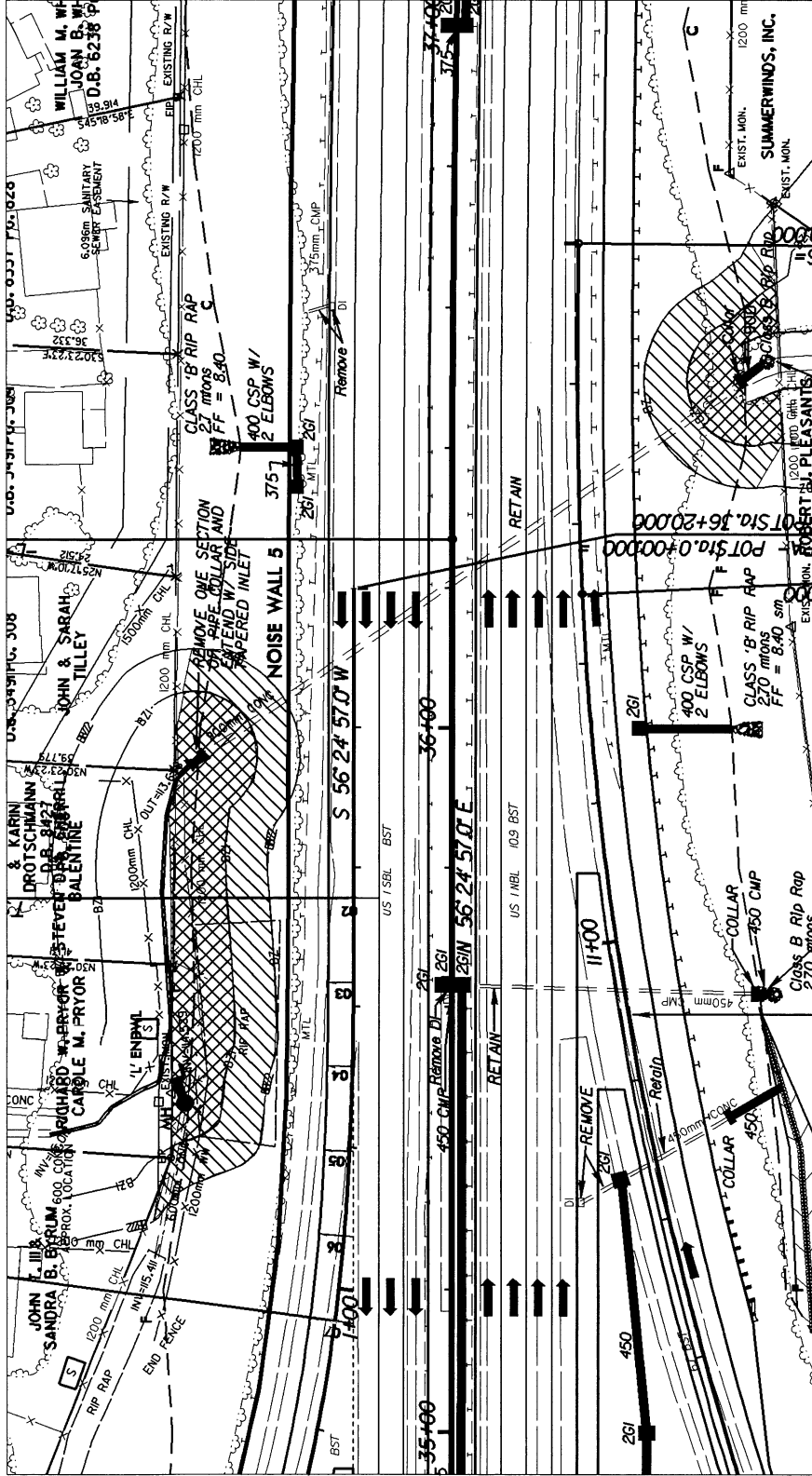
NCDOT
DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.1403101 (U-3101)

US 1/64 FROM US 1/64/SR1009
 (TRYON RD.) INTERCHANGE TO
 SOUTH OF I-40 IN CARY
 rev. 2-25-05
 08-27-04
SHEET 184 OF 21



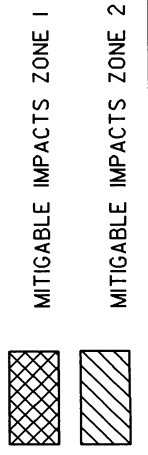
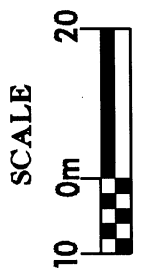
PLAN VIEW
SITE 10

-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING IN WETLAND



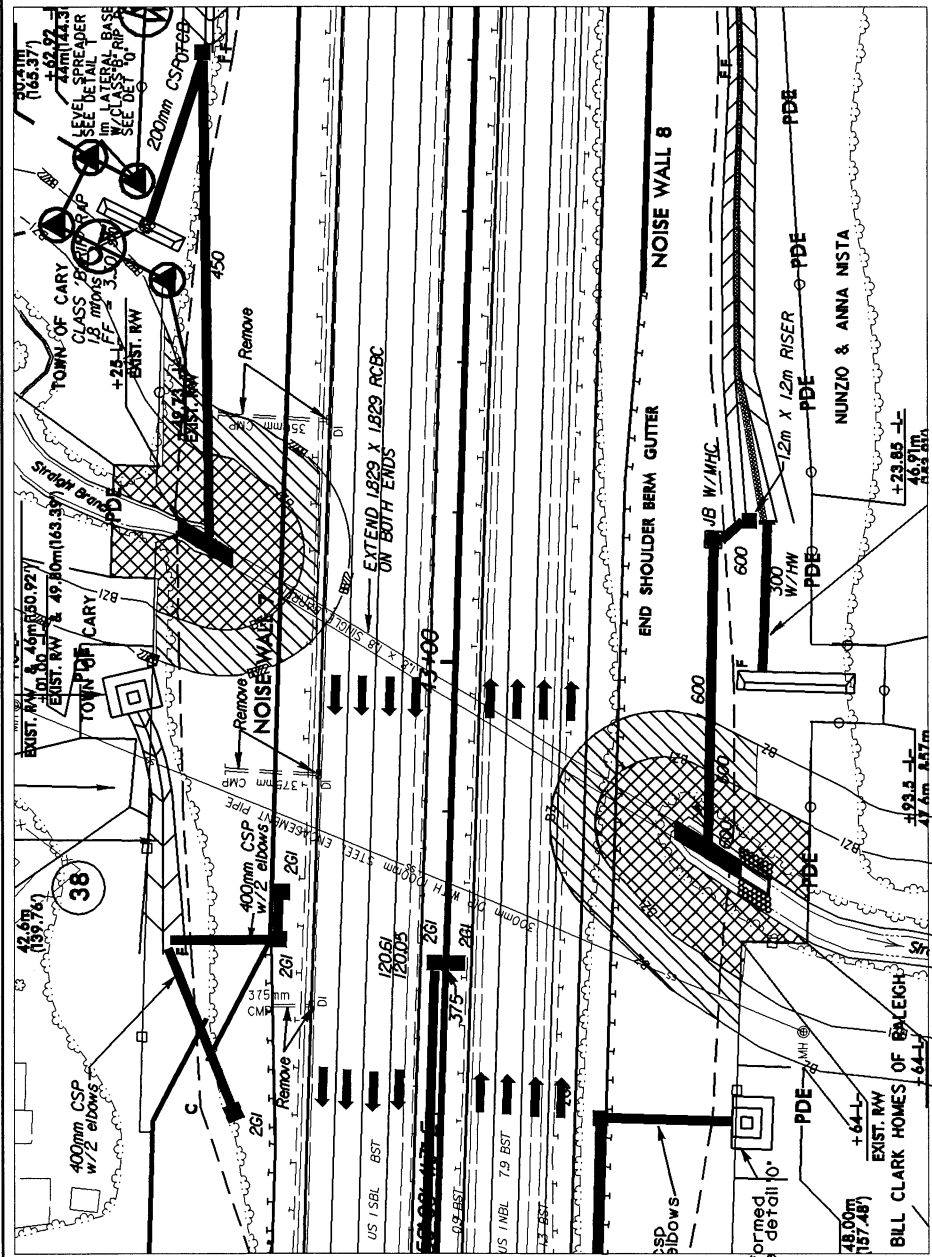
NCDOT
 DIVISION OF HIGHWAYS
 WAKE COUNTY
 PROJECT: 8.1403101 (U-310D)
 US 1/64 FROM US 1/64/SR1009
 (TRYON RD.) INTERCHANGE TO
 SOUTH OF I-40 IN CARY
 rev. 2-25-05
 6-11-04

SITE 3
 PLAN VIEW



MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2



PSH
 STA 42+95 LT.
 D.A. = 0.96 AC.
 OIO = 4.4 CFS

1.5m x 1.5m performed
 scour hole. See detail 0.

PSH
 STA 42+40 RT.
 D.A. = 0.74 AC.
 OIO = 4.0 CFS

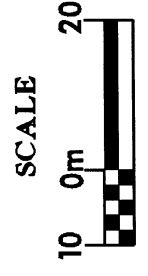
LEVEL SPREADER
 STA. 43+55 LT.
 D.A. = 3.24 AC.
 OIO = 3.0 CFS
 L = 39 FT.

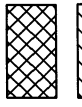
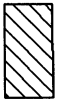
LEVEL SPREADER
 STA. 43+02 RT.
 D.A. = 5.63 AC.
 OIO = 4.9 CFS
 L = 52 FT.

DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.1403101 (U-3101)

US 1/64 FROM US 1/64 / SR1009
(TRYON RD.) INTERCHANGE TO
SOUTH OF I-40 IN CARY
 rev. 2-25-05
SHEET 12 OF 19

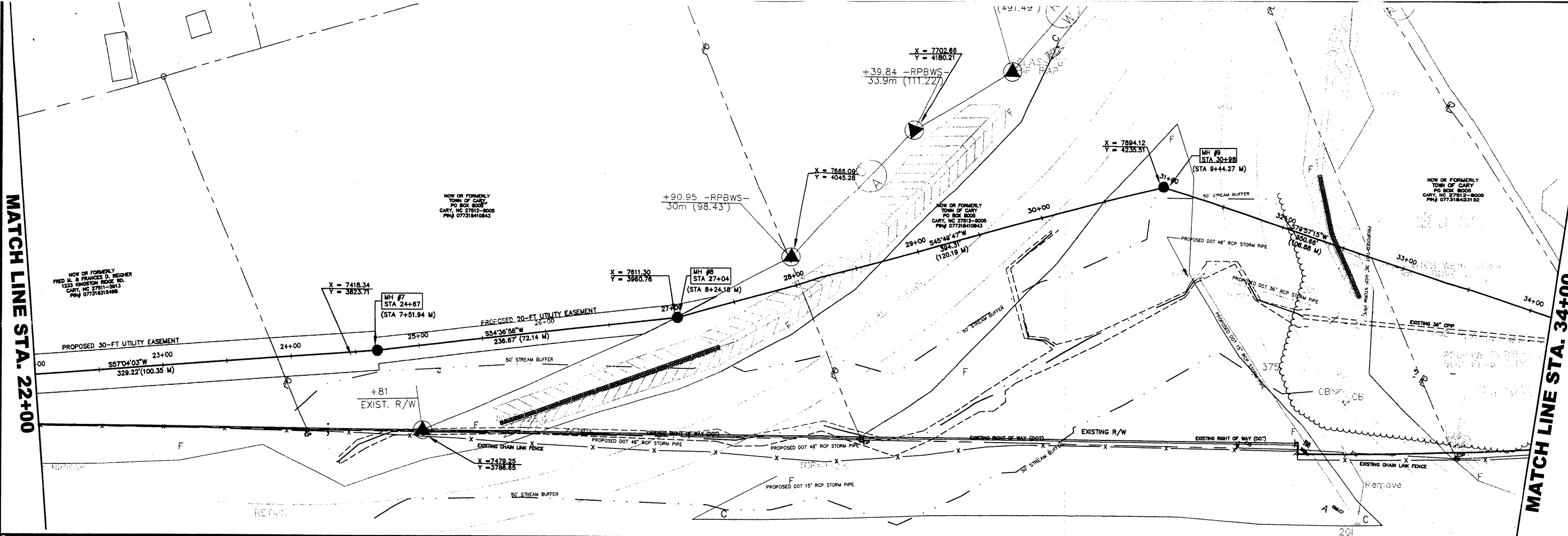
SITE 5
PLAN VIEW



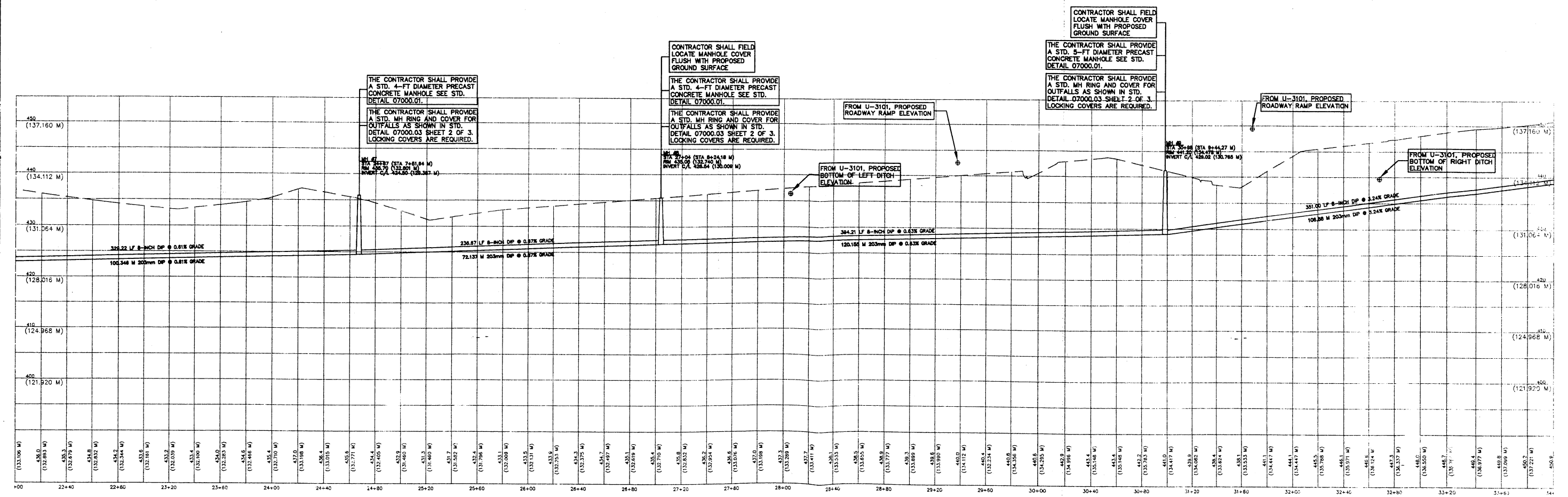
-  MITIGABLE IMPACTS ZONE 1
-  MITIGABLE IMPACTS ZONE 2

MATCH LINE STA. 22+00

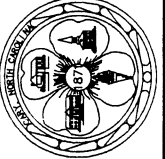
MATCH LINE STA. 34+00



2-7-05 REVISED MANHOLE #9 - J.S.M



TOWN OF CARY
ENGINEERING DEPARTMENT
 318 N. ACADEMY STREET
 CARY, N.C. 27512

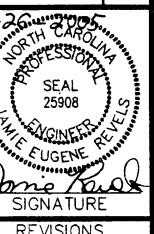
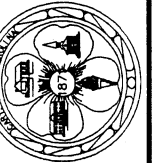


FAIRFIELD PUMP STATION
ABANDONMENT PROJECT
 STA. 22+00 TO STA. 34+00
PLAN & PROFILE

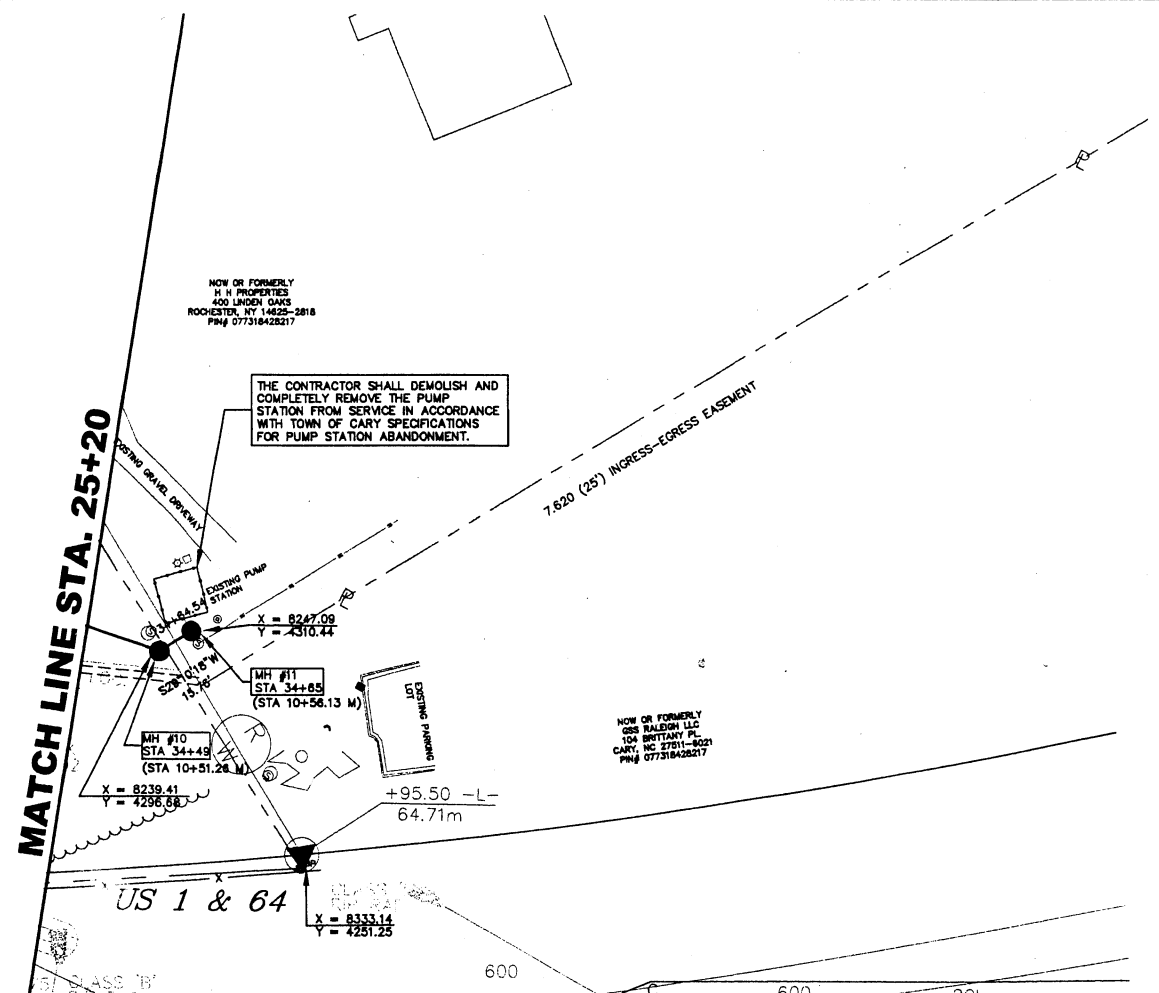
1-26-2005
 NORTH CAROLINA
 PROFESSIONAL
 SEAL
 25908
 ENGINEER
 JAMIE EUGENE REVELS
 SIGNATURE

REVISIONS
 Relocated manhole
 # 9 as requested
 by DOT.
 12 Jan 2005.

PROJ.# SW-1046
 DESIGN BY: J. REVELS
 DRAWN BY: HVG
 DATE: 08/05/04
 SCALE HOR: 1"=40'
 SCALE VER: 1"=10'



MATCH LINE STA. 25+20



THE CONTRACTOR SHALL DEMOLISH AND COMPLETELY REMOVE THE PUMP STATION FROM SERVICE IN ACCORDANCE WITH TOWN OF CARY SPECIFICATIONS FOR PUMP STATION ABANDONMENT.

HOW OR FORMERLY
H.H. PROPERTIES
400 LINDOY OAKS
ROCKLEDGE, NY 14522-2818
PH# 077318428217

HOW OR FORMERLY
G.S. RALEIGH LLC
104 BRITANNY PL.
CARY, NC 27511-8021
PH# 077318428217

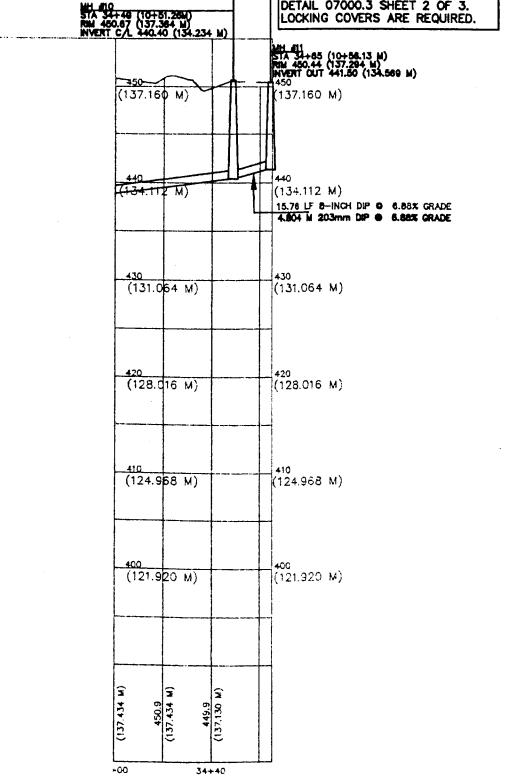
THE CONTRACTOR SHALL PROVIDE A STD. 4-FT DIAMETER PRECAST CONCRETE MANHOLE SEE STD. DETAIL 07000.01.

THE CONTRACTOR SHALL PROVIDE A STD. 5-FT PRECAST CONCRETE MANHOLE SEE STANDARD DETAIL 07000.01.

THE MANHOLE SHALL BE A DOGHOUSE MANHOLE THAT IS FIELD LOCATED OVER THE EXISTING SEWER MAIN AS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL PROVIDE A STD. MH RING AND COVER FOR OUTFALLS AS SHOWN IN STD. DETAIL 07000.03 SHEET 2 OF 3. LOCKING COVERS ARE REQUIRED.

THE CONTRACTOR SHALL PROVIDE A STD. MH RING AND COVER FOR OUTFALLS AS SHOWN IN STD. DETAIL 07000.03 SHEET 2 OF 3. LOCKING COVERS ARE REQUIRED.



SEWER CONSTRUCTION

- 1) ALL SEWER LINES SHALL BE CONSTRUCTED AT THE LINES AND GRADES AS SHOWN ON THE PLANS. ANY SEWER CONSTRUCTION NOT INSTALLED AT THE GRADES SPECIFIED ON THE PLANS PLUS OR MINUS 0.03% ALLOWABLE TOLERANCE SHALL BE SUBJECT TO REJECTION BY THE OWNER. ANY SEWER INSTALLED BELOW 0.40% GRADE SHALL BE REJECTED WITH NO REGARD TO TOLERANCE.
- 2) DUCTILE IRON PIPE APPROVED BY THE TOWN OF CARY IS REQUIRED FOR THE CONSTRUCTION OF ALL SEWER MAINS UNDER THIS PROJECT.
- 3) THE CONTRACTOR SHALL BE REQUIRED TO INSTALL BEDDING FOR ALL SEWER MAINS CONSTRUCTED WITH THIS PROJECT. THE BEDDING SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4-INCHES AS SHOWN IN THE DETAILS.
- 4) ALL SEWER MAIN CONSTRUCTION SHALL BE TESTED AS SPECIFIED INCLUDING VIDEO ASSESSMENT AND CLEANING
- 5) LOW PRESSURE AIR TESTING SHALL BE PERFORMED ON ALL SEWER MAINS AND LATERALS AFTER ALL LATERALS OR STUBS HAVE BEEN INSTALLED ON THE LINE AND AFTER THE TRENCH HAS BEEN BACKFILLED TO FINISHED GRADE.

MANHOLE CONSTRUCTION

- 1) ALL MANHOLE EXTERIOR JOINTS SHALL BE WRAPPED WITH AN APPROVED SEALING PRODUCT SUCH AS INFI-SHIELD SEAL WRAP OR AN APPROVED EQUIVALENT PRODUCT.
- 2) ALL MANHOLE CONNECTIONS SHALL BE CORED WITH A CONCRETE CORING MACHINE. UNAPPROVED CONNECTIONS SHALL BE REJECTED.
- 3) ALL MANHOLES CONSTRUCTED WITH THIS PROJECT SHALL PASS A VACUUM TEST AS SPECIFIED PRIOR TO ACCEPTANCE BY THE OWNER.

PUMP STATION DEMOLITION AND REMOVAL

- 1) PRIOR TO BEGINNING REMOVAL AND/OR DEMOLITION OPERATIONS, ALL WASTEWATER MUST BE FLOWING BY GRAVITY AS INDICATED ON THE PLANS. WASTEWATER SHALL NOT BE DIVERTED INTO NEW GRAVITY LINES UNTIL ACCEPTANCE OF THE LINES BY THE TOWN OF CARY.
- 2) **POWER DISCONNECTION:** THE CONTRACTOR SHALL NOTIFY THE OWNER WHO SHALL IN TURN CONTACT PROGRESS ENERGY TO DISCONNECT ELECTRICAL POWER FROM THE PUMPING STATION. THE CONTRACTOR SHALL NOT PROCEED WITH PUMP STATION DEMOLITION AND/OR REMOVAL UNTIL FOURTEEN (14) DAYS AFTER NOTIFYING THE OWNER THAT WASTEWATER IS FLOWING IN THE NEW GRAVITY LINES.
- 3) **SALVAGE:** DURING THE FOURTEEN (14) DAYS, THE OWNER SHALL HAVE ELECTRICAL POWER DISCONNECTED AND REMOVE SALVAGEABLE EQUIPMENT FROM THE PUMP STATION. ANY EQUIPMENT REMAINING AT THE END OF THAT TIME SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- 4) **WATER SERVICES:** WATER SERVICE CONNECTIONS AT THE WATER MAIN OF EACH STATION HAVING WATER SERVICE SHALL BE DISCONNECTED AT THE MAIN BY THE TOWN OF CARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN OF CARY PUBLIC WORKS AND UTILITIES DEPARTMENT WHEN THE DISCONNECTING OF WATER SERVICE IS REQUIRED. A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN THE TOWN BY THE CONTRACTOR.
- 5) **FORCE MAINS:** SOLID AND LIQUID CONTENTS OF THE FORCE MAINS SHALL BE COMPLETELY REMOVED AND DISPOSED OF PROPERLY IN ACCORDANCE WITH STATE AND LOCAL ENVIRONMENTAL AND HEALTH DEPARTMENT REGULATIONS. A PORTION OF EACH FORCE MAIN SHALL THEN BE REMOVED SUCH THAT IT IS AT LEAST THREE (3) FEET BELOW EXISTING GROUND ELEVATION (PRIOR TO CONSTRUCTION) OR HAS BEGUN ITS HORIZONTAL RUN. BOTH ENDS OF EACH FORCE MAIN SHALL BE PERMANENTLY SEALED. ALL COSTS ASSOCIATED WITH PUMPING OUT AND SEALING THE FORCE MAIN SHALL BE INCLUDED IN THE ITEMIZED PROPOSAL BID ITEM FOR "PUMP STATION DEMOLITION AND REMOVAL".
- 6) **WET WELL:** THE CONTRACTOR SHALL REMOVE ALL SOLID AND LIQUID CONTENTS OF THE WET WELL IN ACCORDANCE WITH STATE AND LOCAL ENVIRONMENTAL AND HEALTH DEPARTMENT REGULATIONS. THE CONTRACTOR SHALL THEN REMOVE ALL PUMPS, MOTORS, BASES, ELECTRICAL CONTROLS, WEATHER HOOD, ALL VALVING, FENCING AND ALL PIPING (SUCH THAT IT IS FLUSH WITH THE TOP OF THE WET WELL) AND THEN SEAL ALL PIPES OPENINGS.
- 7) **DEMOLITION:** FOLLOWING REMOVAL OF ALL SALVAGEABLE ITEMS, THE CONTRACTOR SHALL COMMENCE DEMOLITION OPERATIONS ON THE PUMP STATION. TOTAL DEMOLITION OF THE STATION IS NOT REQUIRED, BUT IS AT THE CONTRACTOR'S OPTION. THE CONTRACTOR SHALL DEMOLISH ONLY THAT PORTION OF THE PUMP STATION FROM THE GROUND ELEVATION LEVEL PRIOR TO CONSTRUCTION TO A POINT AT LEAST FIVE (5) FEET BELOW EXISTING GROUND LEVEL PRIOR TO CONSTRUCTION, PROVIDING A SUFFICIENT NUMBER OF WEEP HOLES IN OR NEAR THE FLOOR OF THE WET WELL AND THE PUMP CHAMBER TO PREVENT FLOATION OR WATER ENTRAPMENT. EACH WEEP HOLE SHALL HAVE ON BOTH THE OUTSIDE AND INSIDE A GRAVEL PACK OF AT LEAST 2 CUBIC YARDS IN VOLUME. PROVIDE FILL MATERIAL OF SUFFICIENT QUANTITY TO FILL THE HOLE CREATED BY DEMOLITION.
- 8) **COMPACTION:** PLACE FILL MATERIAL IN SIX (6) INCH LOOSE LIFTS, COMPACTED TO NINETY PERCENT (90%) PERCENT STANDARD PROCTOR DENSITY. GRADE SHALL CONFORM TO SURROUNDING TOPOGRAPHY, ABSENT OF ANY DEPRESSIONS. PROVIDE SEEDING AND MULCHING AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- 9) **BLASTING:** ANY BLASTING ASSOCIATED WITH DEMOLITION MUST BE IN FULL ACCORDANCE WITH SPECIFICATIONS OUTLINED ELSEWHERE IN THE CONTRACT DOCUMENTS. NO ADDITIONAL PAYMENTS WILL BE ISSUED FOR BLASTING OR ROCK EXCAVATION.

6-1-04 REVISED