# STREET IMPROVEMENTS FOR THE TOWN OF ST. PAULS, N.C.

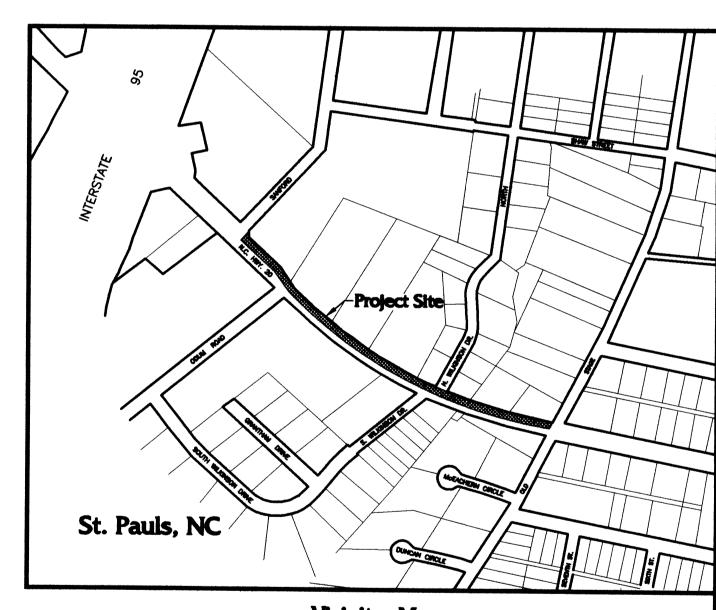
N.C. HIGHWAY 20 - SIDEWALK

TIP ER-2971F WBS 3606.3.16 FA Project No. 0005-424

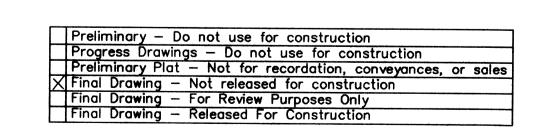
M. GORDON WESTBROOK, MAYOR SANDRA G. CAIN, MAYOR PRO-TEM

TOWN BOARD OF COMMISSIONERS

W. DAVID AYERS
GHEE BLAIN JOHNSON
SAMUEL MCALLISTER
McCLURE TERRY, JR.
GERARD J. WEINDEL
J. R. STEIGERWALD, TOWN ADMINISTRATOR
KAREN DAVIS, TOWN CLERK

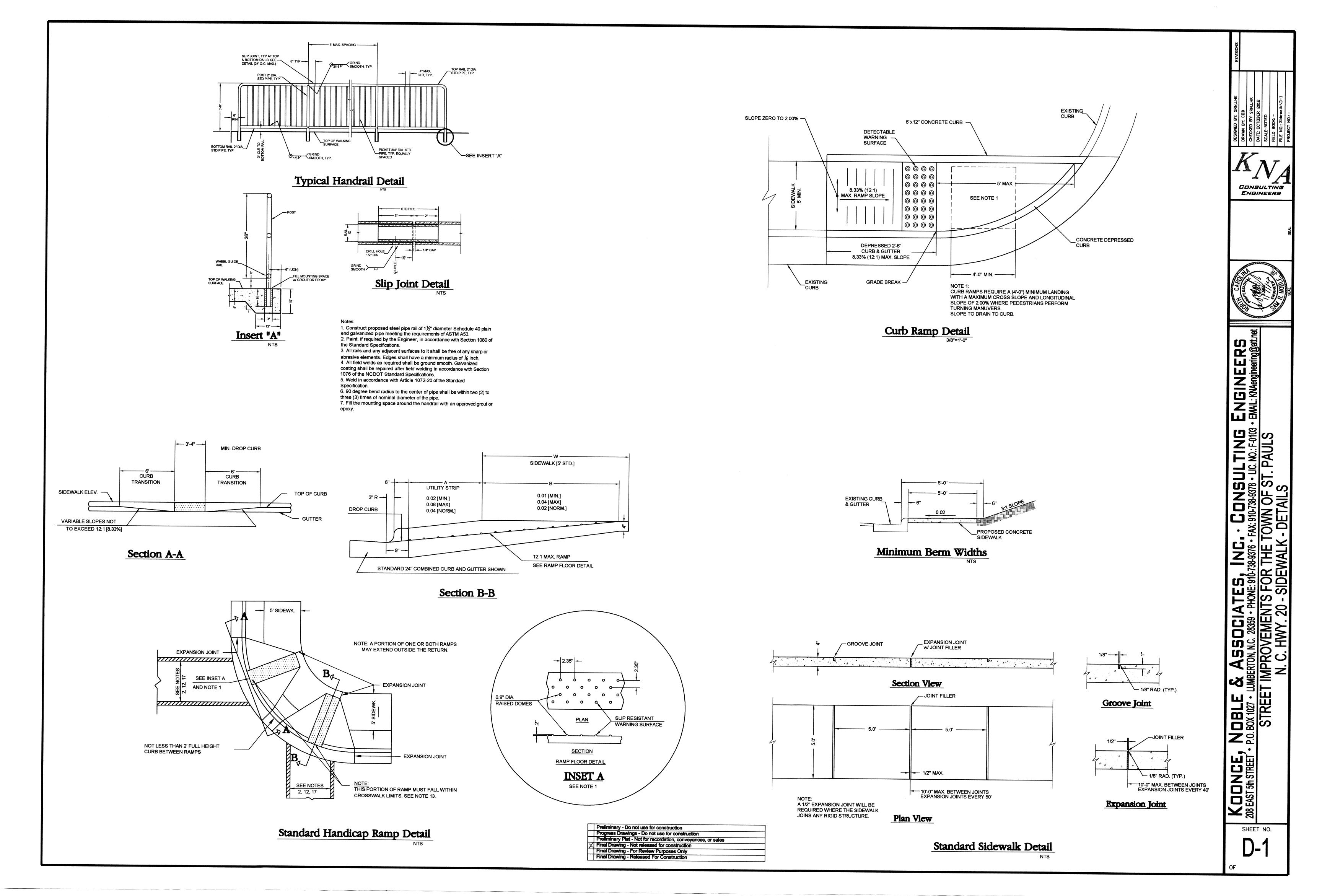


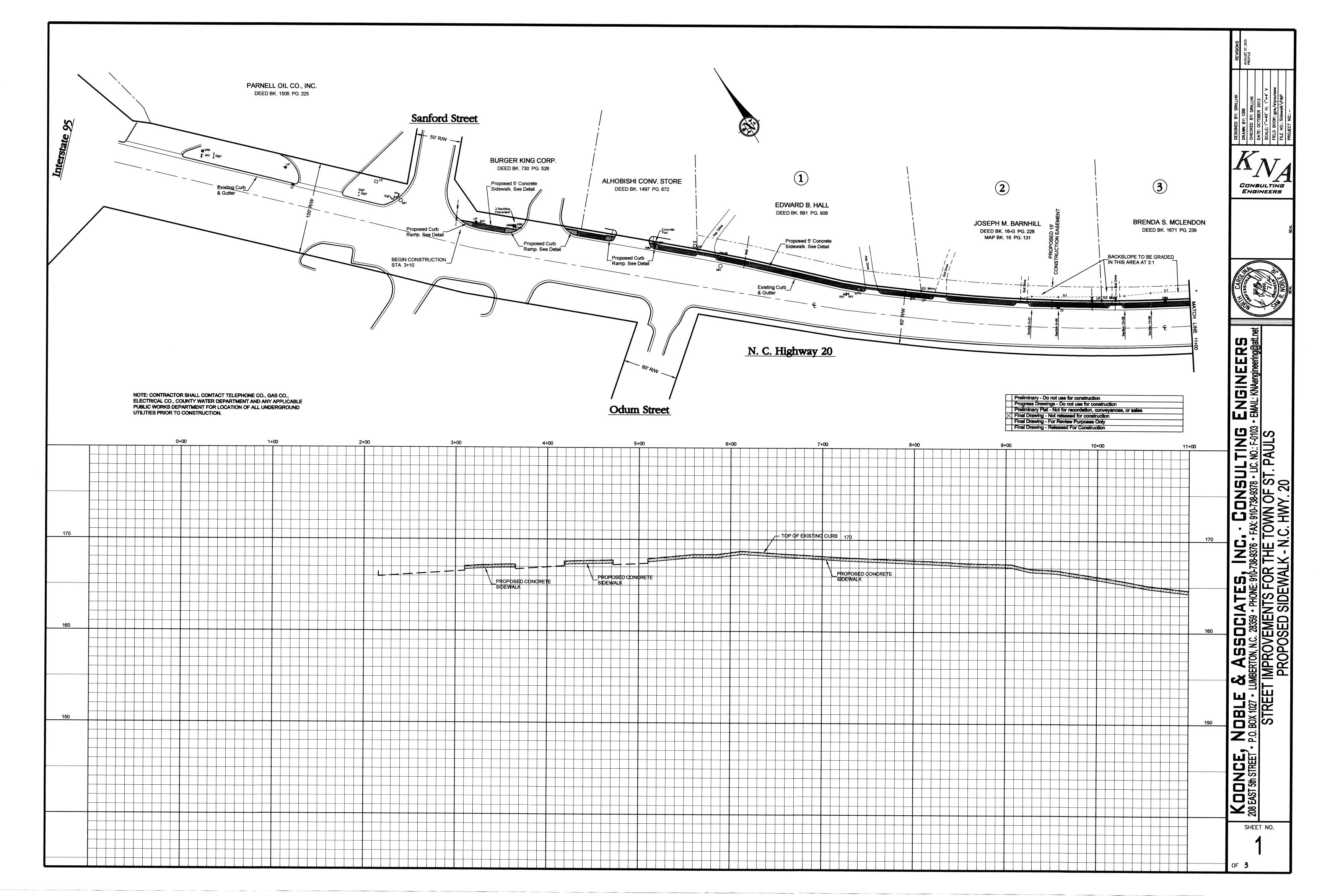


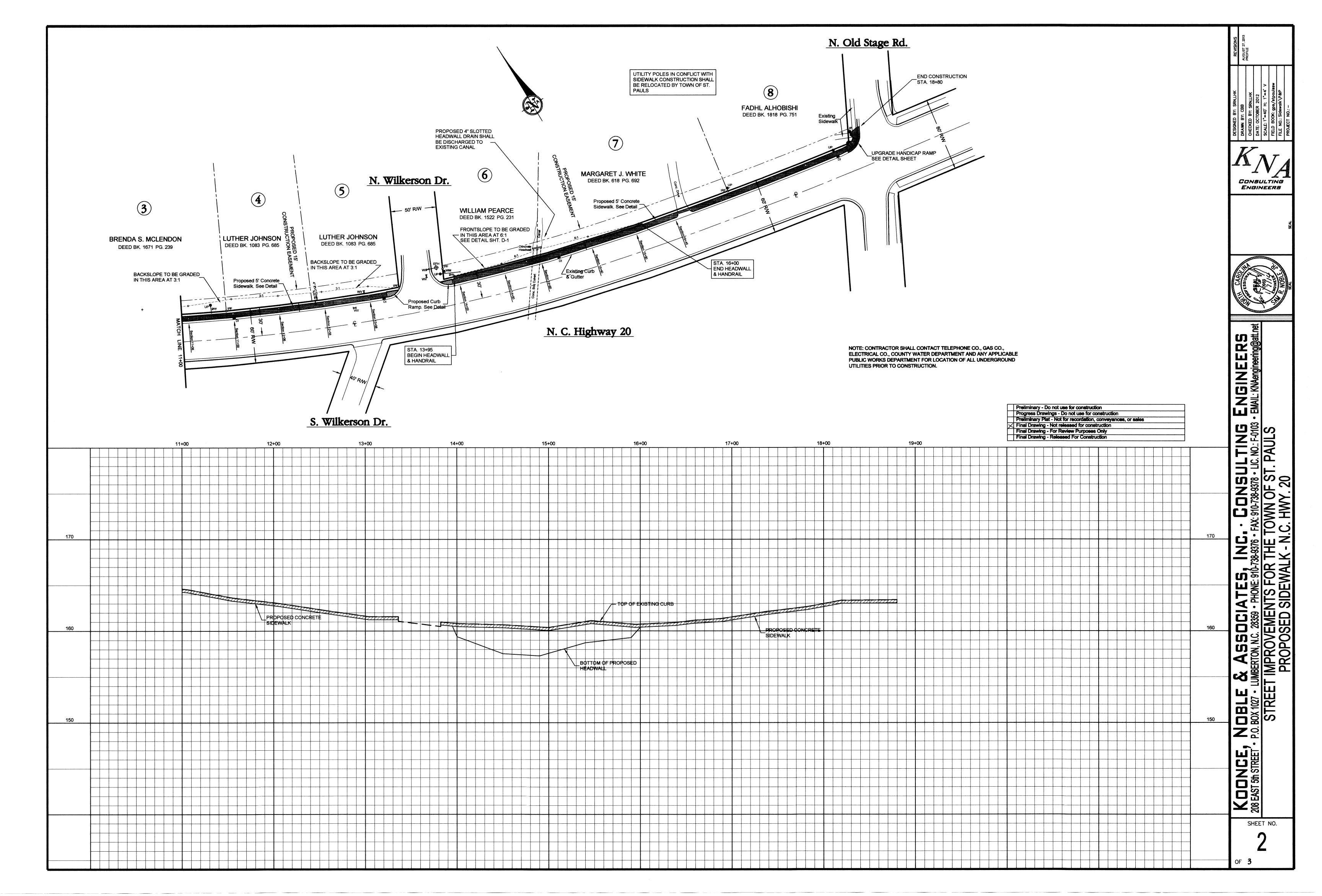


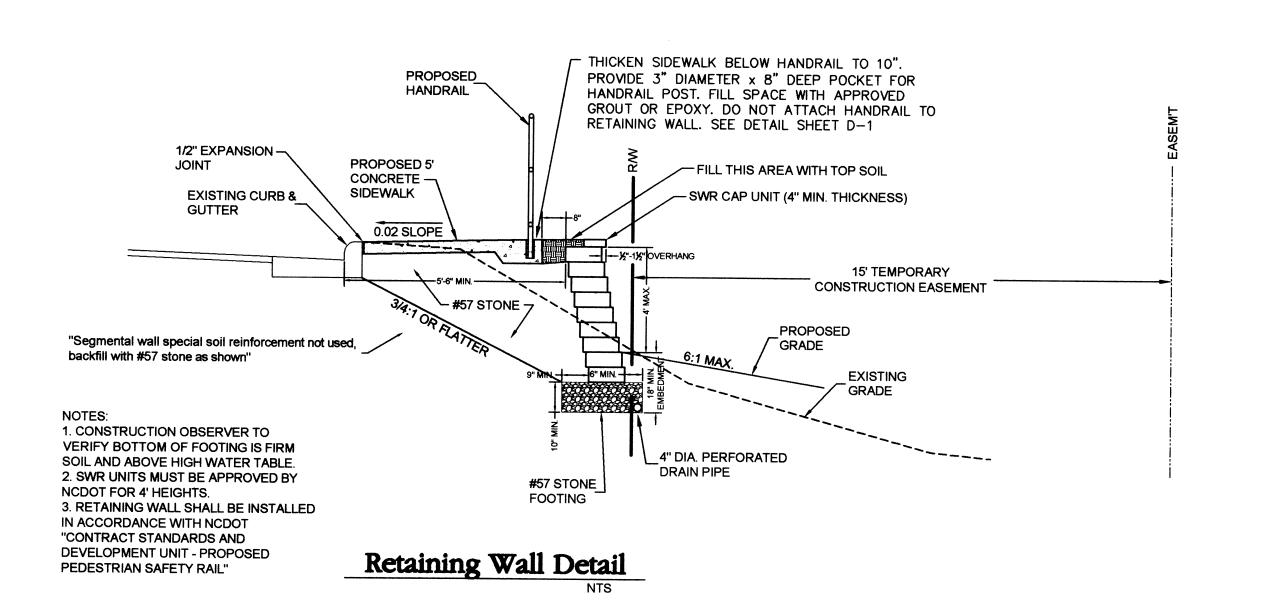


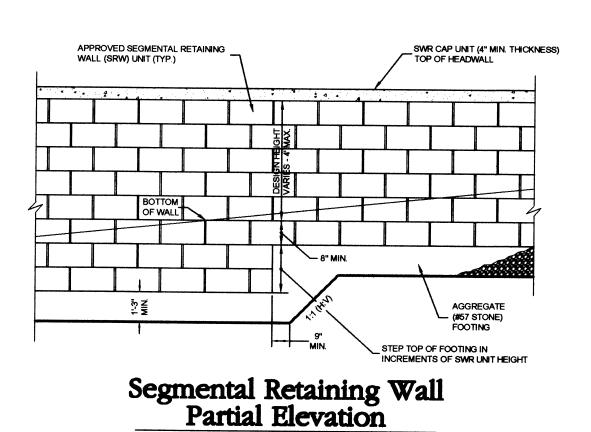
KOONCE, NOBLE & ASSOCIATES, INC. CONSULTING ENGINEERS · LUMBERTON, N.C. P.O. BOX 1027 208 EAST FIFTH STREET PHONE: 910-738-9376 FAX: 910-738-9378 EMAIL: KNAengineering@att.net LIC. No.- F-0103











## STANDARD SEGMENTAL GRAVITY RETAINING WALL NOTES:

1. DO NOT ATTACH HANDRAILS OR FENCES TO STANDARD SEGMENTED GRAVITY RETAINING WALL SYSTEMS (SRW)

2. VERIFY SOIL CONDITIONS UPON EXCAVATION, DO NOT BEAR STANDARD SEGMENTAL GRAVITY RETAINING WALL SYSTEMS ON LOOSE, SOFT SOIL OR MUCK.

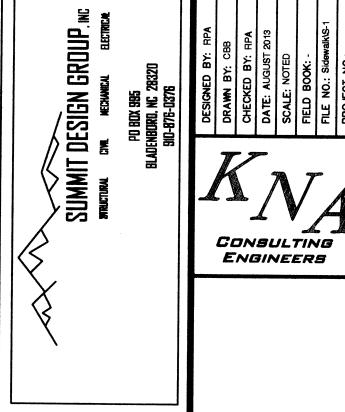
3. STANDARD SEGMENTED GRAVITY RETAINING WALL SYSTEMS ARE APPROVED BY NCDOT FOR EITHER 4' OR 2' MAXIMUM DESIGN HEIGHTS. APPROVED SRW SYSTEMS ARE

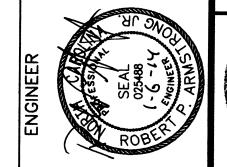
LISTED ON THE NCDOT WEBSITE: https://connect.ncdot.gov/resources/Geological/Pages/Products.aspx

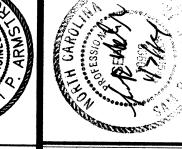
4. DO NOT MIX SRW UNITS FROM DIFFERENT VENDORS OR SAME SRW VENDORS WITH DIFFERENT APPROVED SYSTEMS.

5. FOOTING DRAIN PIPE IS REQUIRED IF GROUNDWATER IS ABOVE THE BOTTOM OF FOOTING.

6. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, SRW VENDOR AND SYSTEM BEFORE ORDERING MATERIAL. THE SUBMITTAL SHALL INCLUDE PROFILE AND ELEVATION VIEWS FOR 25' ENVELOPE LENGTHS.



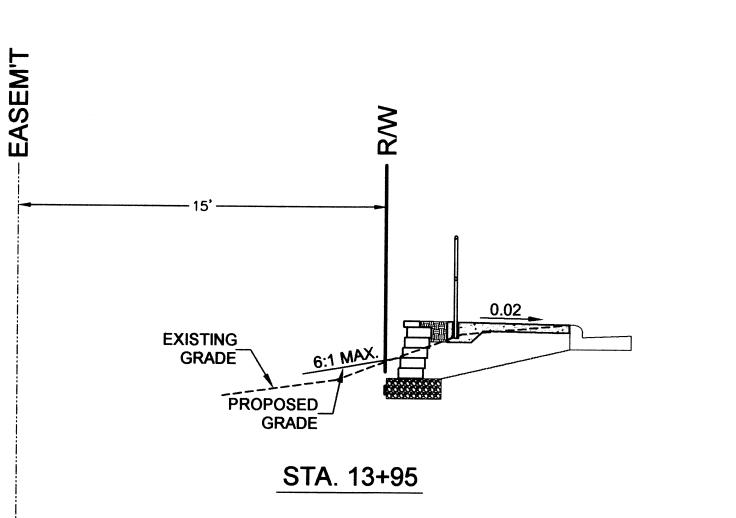


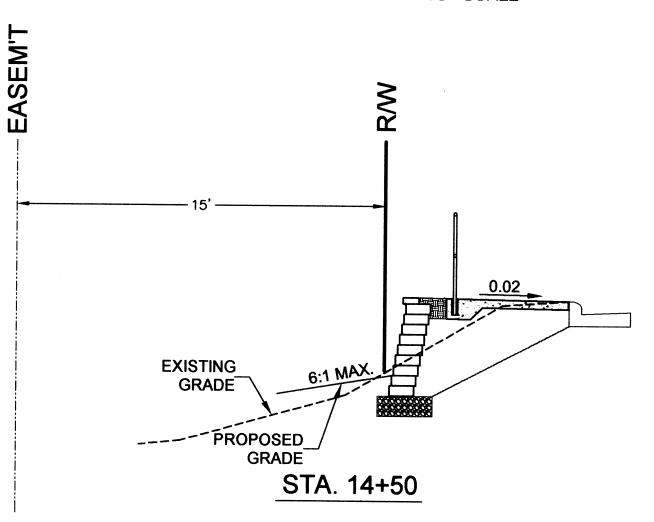


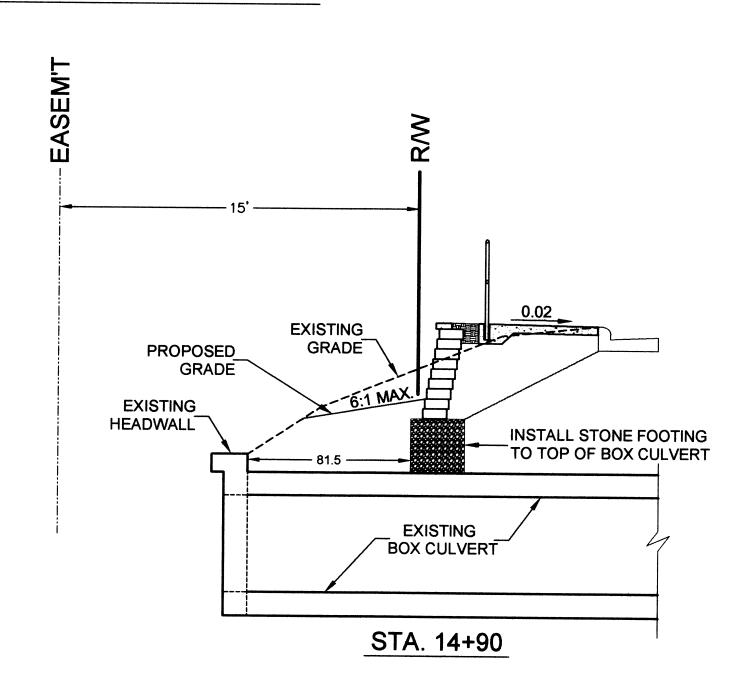
CONSTRUCTING 10-738-9378 • LIC. NO.: F-0103 • IN OF ST. PAULS TAILS

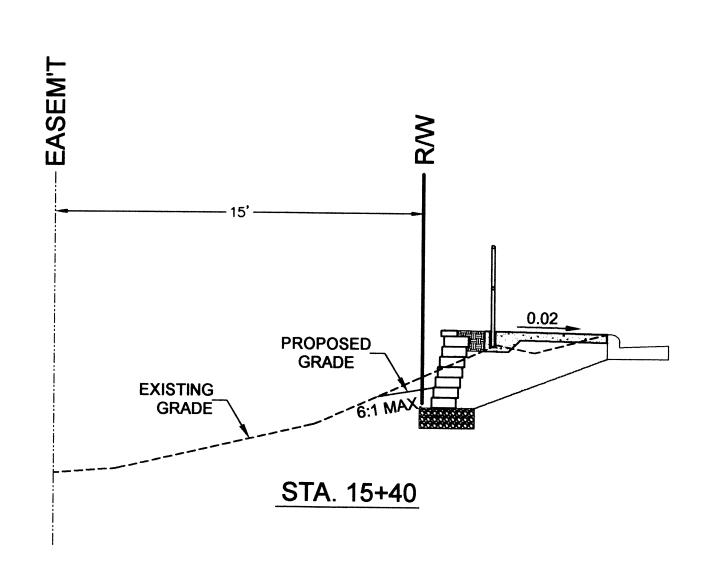
# SECTIONS @ RETAINING WALL

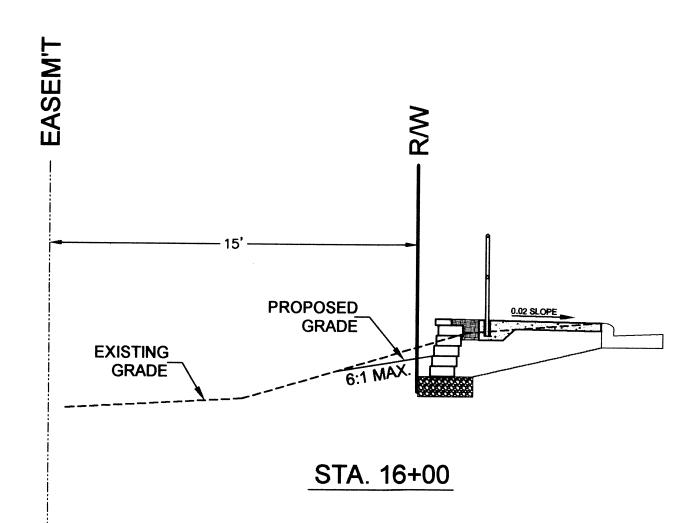
NOT-TO-SCALE





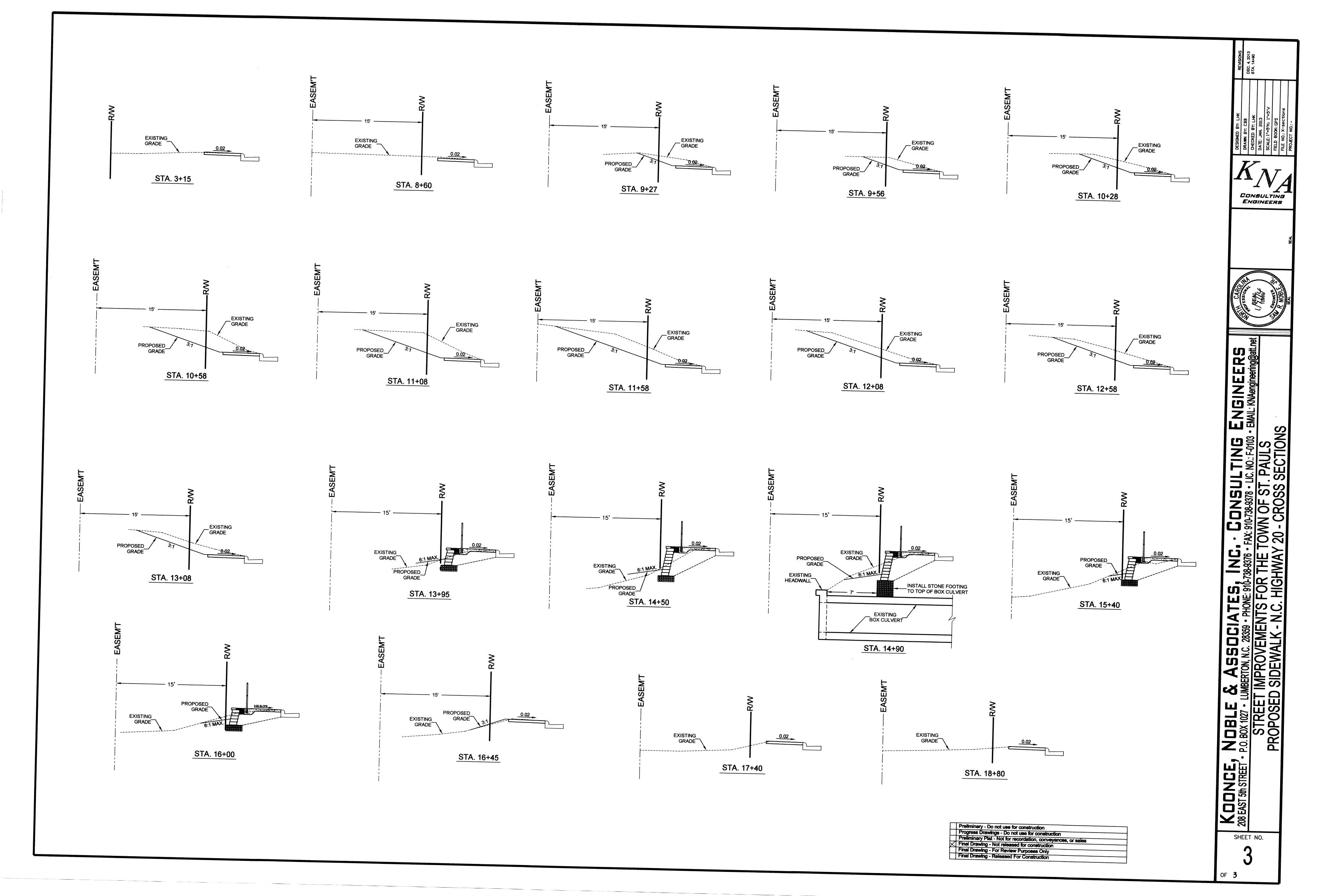


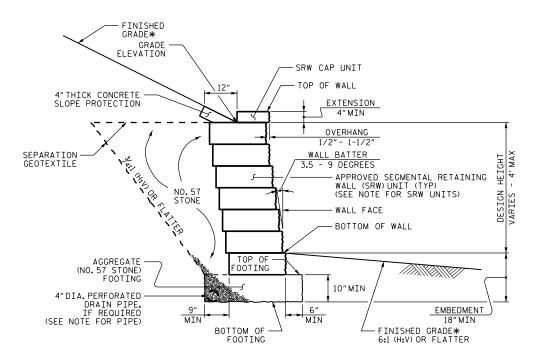




SHEET NO.

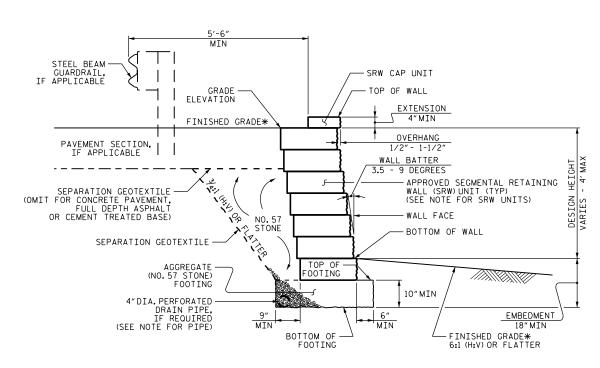
NOBLE & P.O. BOX 1027 - LUI STREET





### STANDARD SEGMENTAL GRAVITY WALL WITH SLOPE

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



### STANDARD SEGMENTAL GRAVITY WALL WITHOUT SLOPE

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

### NOTES:

FOR STANDARD SEGMENTAL GRAVITY RETAINING WALLS, SEE SEGMENTAL GRAVITY RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

DO NOT ATTACH FENCES OR HANDRAILS TO STANDARD SEGMENTAL GRAVITY WALLS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS FOR INTERSTATE HIGHWAY OR RAILROAD PROJECTS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN SURCHARGE LOADS WILL BE WITHIN  $5^\prime\text{-}6^\prime\prime\text{OF}$  THE BACK OF SRW CAP UNITS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.

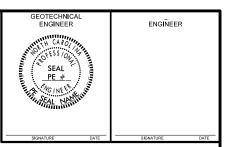
SEGMENTAL RETAINING WALL (SRW) UNITS ARE APPROVED FOR EITHER 2'OR 4' MAXIMUM DESIGN HEIGHTS, FOR DETAILS AND DIMENSIONS OF APPROVED SRW UNITS AND MAXIMUM DESIGN HEIGHTS, SEE connect.ncdot.gov/resources/Geological/Pages/Products.aspx

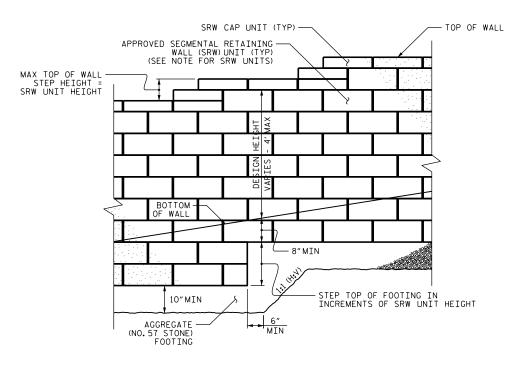
DO NOT MIX APPROVED SRW UNITS FROM DIFFERENT VENDORS ON THE SAME STANDARD SEGMENTAL GRAVITY WALL. USE THE SAME SIZE APPROVED SRW UNITS FOR EACH WALL SECTION.

BEFORE BEGINNING STANDARD SEGMENTAL GRAVITY WALL CONSTRUCTION, SURVEY WALL LOCATIONS AND SUBMIT WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. FOR WALL ENVELOPES, INCLUDE BOTTOM OF WALL, EXISTING GROUND AND GRADE ELEVATIONS AND OTHER ELEVATIONS AS NEEDED AT INTERVALS OF 25' OR LESS ALONG WALLS. DO NOT START WALL CONSTRUCTION UNTIL WALL ENVELOPES ARE

A DRAIN PIPE IS REQUIRED IF GROUNDWATER IS ABOVE BOTTOM OF FOOTINGS.

DO NOT PLACE NO.57 STONE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.





### STANDARD SEGMENTAL GRAVITY WALL - PARTIAL ELEVATION

<i>PROJECT NO.:</i>	
	COUNTY
STATION:	
SHEET_OF_	



### **GEOTECHNICAL** ENGINEERING UNIT

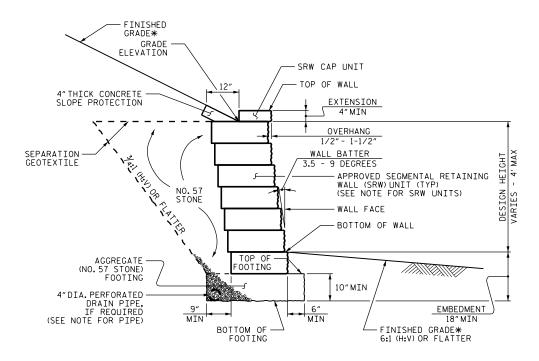
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

STANDARD DRAWING NO. 453.02

**STANDARD SEGMENTAL GRAVITY RETAINING WALL** 

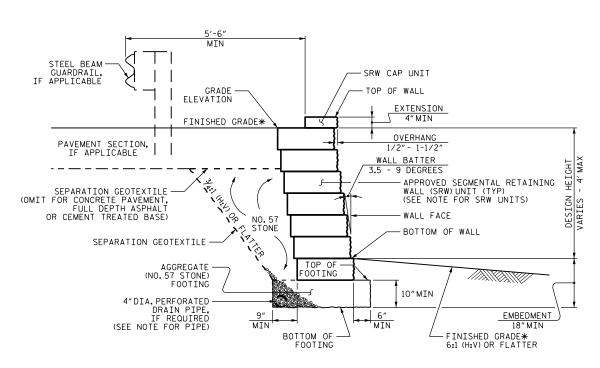
DATE: 11-19-13

SHEET NO



### STANDARD SEGMENTAL GRAVITY WALL WITH SLOPE

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



### STANDARD SEGMENTAL GRAVITY WALL WITHOUT SLOPE

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

FOR STANDARD SEGMENTAL GRAVITY RETAINING WALLS, SEE SEGMENTAL GRAVITY RETAINING WALLS PROVISION

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION  $862\,$  OF THE STANDARD SPECIFICATIONS.

DO NOT ATTACH FENCES OR HANDRAILS TO STANDARD SEGMENTAL GRAVITY WALLS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS FOR INTERSTATE HIGHWAY OR RAILROAD PROJECTS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN SURCHARGE LOADS WILL BE WITHIN 5'-6" OF THE BACK OF SRW CAP UNITS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.

SEGMENTAL RETAINING WALL (SRW) UNITS ARE APPROVED FOR EITHER 2'OR 4' MAXIMUM DESIGN HEIGHTS. FOR DETAILS AND DIMENSIONS OF APPROVED SRW UNITS AND MAXIMUM DESIGN HEIGHTS, SEE connect.ncdot.gov/resources/Geological/Pages/Products.aspx

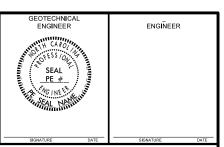
DO NOT MIX APPROVED SRW UNITS FROM DIFFERENT VENDORS ON THE SAME STANDARD SEGMENTAL GRAVITY WALL. USE THE SAME SIZE APPROVED SRW UNITS FOR EACH WALL SECTION.

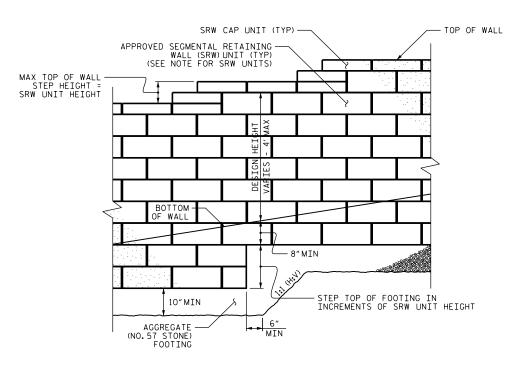
FREEZE-THAW DURABLE SRW UNITS THAT MEET ARTICLE 1040-4 OF THE STANDARD SPECIFICATIONS ARE REQUIRED.

BEFORE BEGINNING STANDARD SEGMENTAL GRAVITY WALL CONSTRUCTION, SURVEY WALL LOCATIONS AND SUBMIT WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. FOR WALL ENVELOPES, INCLUDE BOTTOM OF WALL, EXISTING GROUND AND GRADE ELEVATIONS AND OTHER ELEVATIONS AS NEEDED AT INTERVALS OF 25' OR LESS ALONG WALLS. DO NOT START WALL CONSTRUCTION UNTIL WALL ENVELOPES ARE

A DRAIN PIPE IS REQUIRED IF GROUNDWATER IS ABOVE BOTTOM OF

DO NOT PLACE NO.57 STONE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.





### STANDARD SEGMENTAL GRAVITY WALL - PARTIAL ELEVATION

PROJECT NO.:_	_
	COUNTY
STATION:	
SHEET_OF_	
STANDAR	RD DRAWING NO. 453.03



### **GEOTECHNICAL** ENGINEERING UNIT

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

STANDARD SEGMENTAL **GRAVITY RETAINING WALL** WITH FREEZE-THAW **DURABLE SRW UNITS** 

SHEET NO