

Link to recording of December 10, 2021 training:

[Consultants' Check In-20211210 1408-1](#)

Cost Estimating December 10, 2021

- Reminder be sure to use the latest forms anytime you update the cost estimate.
Reminder that the latest forms for Engineering Services can be found here:
<https://charlottenc.gov/GS/procurement/GSBids/Pages/SPdetails.aspx>
Note: If you haven't already, sign up for email updates to this page (includes CAD Standards updates).

- Reminder: City staff should complete cover sheet (not consultants). Consultants can help fill out tabs that provide info to the cover sheet such as Utilities and RE. Several updates recently to cover sheet including adding public art, survey in design for plats

Project Name	
<u>Pre-Planning Level Cost Estimate</u>	
ESTIMATED BY:	Full name - City only
CHECKED BY:	Full name - City Only

- Update: Separated fence relocation and fence removal in demo tab as costs are significantly different.

ADDITIONAL WORK ITEMS:			
Fence Removal/disposal		LF	\$2.25
Fence Relocation		LF	\$25.00

- Reminder to update and use correct Construction contingency and RE contingency:

10% inflation 2 years, 7% inflation 3 years, 5% inflation 2 years	Construction Contingency	7 yr period	\$0.00	1.634	Compound inflation
Inflation					

Formula for inflation (construction and RE) will need to be modified for each project submittal based on years until construction or RE. Typically, 1–2-year difference depending on project schedule (could be longer for Federal projects).

Compound inflation factor formula above = 1.634

$$=(1.1^2)*(1.07^3)*(1.05^2)$$

5. Reminder to use recent bid prices with similar quantities:
 - a. Check the City's completed bid solicitation page for recent projects:
<https://charlottenc.gov/GS/procurement/GSBids/Pages/BidsContractsArchive.aspx>
 - b. Ask your Project Manager to provide names of recent projects that would be similar in scope/size to review and look for on website above. Or Project Manager may be able to directly provide the applicable recent bid tabs.
 - c. Ask your Project Manager to find rarely used pricing such as guardrail or fencing using the CI program (City access only). If Project Manager and consultant are struggling to find applicable pricing, the Project Manager can reach out to me for additional help.
 - d. Prices are fluctuating due to supply and material costs. Some items with recent increases include storm drainage pipes, culverts, and structures. These items should be sure to use recent bid pricing and continue to monitor closely. Also have heard of steel increases.
 - e. Prices in estimate should not be inflated based on future costs (unless we have known upcoming price increases – i.e., we get notified of significant increase in concrete pricing). The yearly inflation should cover most future price increases.

Plan Design Milestone Checklist

December 10, 2021

1. Reminder be sure to use the latest forms anytime you prepare the checklist. Reminder that the latest forms for Engineering Services can be found here:

<https://charlottenc.gov/GS/procurement/GSBids/Pages/SPdetails.aspx>

Note: If you haven't already, sign up for email updates to this page (includes CAD Standards updates).

2. Reminder this form must be submitted with every plan submittal (required).

- a. It is tool we should all use to ensure plan quality.

- b. Items should not be checked off unless verified they have been completed.

We continue to receive checklists with items checked that are not in plans.

Plans may be returned if checklist is not reflecting what is included in plan set.

3. Recent change included adding list of project features:

_____ Project Features - Place under Project Name & Number in heading.

Below is a comprehensive list of key project features that may be used on the title sheet.

Intended to only include those major features specific to type of project.

Grading

Concrete Sidewalks

Concrete Curb Ramps

Concrete Curb and Gutter

Concrete Driveway

Concrete Pedestrian Refuge

Concrete Truck Aprons

Concrete Multi-Use Path

Concrete Bike Ramp

Milling

Asphalt Pavement

Pavement Markings

Storm Drainage

Roundabout

Traffic Signal

Pedestrian Signals

Pedestrian Hybrid Beacon

PCSO: Choose from list below for applicable items:

Bioretention, Wet Pond, Engineered Wetland, Underground Sand Filter,

Surface Sand Filter, Underground Pipe Detention, Dry Pond

Signage

Guardrail

Utilities (water and sewer)

Retaining Wall

Bridge

Structures (type)

Decorative Paving/Pavers

4. Removed note to omit labels on 30% Design submittal.

- a. Check with your project manager regarding what labels may be needed for your specific project.

- b. Typical items include planting strip width, sidewalk or MUP width, lane widths

Plan Template Updates and Sample Plans

December 10, 2021

1. City has just released the 2022 CAD Standards located here: <https://charlottenc.gov/GS/procurement/GSBids/Pages/CADstandards.aspx>
2. New ramp sample and template layout is now available

RAMP NOTES

SEE THE BIDDING SPECIFICATIONS FOR THE LATEST CITY OF CHARLOTTE STANDARDS FOR CURB AND CURB RAMP DETAIL. THE NUMBER OF RAMP SAMPLES SHOWN ON THIS SHEET IS ONLY FOR ILLUSTRATION PURPOSES. THE NUMBER OF RAMP SAMPLES SHOWN ON THIS SHEET IS ONLY FOR ILLUSTRATION PURPOSES. THE NUMBER OF RAMP SAMPLES SHOWN ON THIS SHEET IS ONLY FOR ILLUSTRATION PURPOSES.

PROP CURB RAMP
L- STA. 12+65.15 23.46'R
SEE CURB RAMP DETAIL X

File in the cabinet for station and offset values on the Plan and Profile sheet.
PROP CURB RAMP STATION AND OFFSET SEE CURB RAMP DETAIL X

CURB RAMP DETAIL 3

CURB RAMP DETAIL 4

CURB RAMP DETAIL 5

CURB RAMP DETAIL 6

THIS SHEET IS AN EXAMPLE ONLY. THE NUMBER OF RAMP SAMPLES ON SHEET CAN VARY PER PROJECT AND BIDDING SIZE CAN VARY TO FIT RAMP AS NEEDED.

PROJECT NO.	
SHEET NO.	
TITLE	
DATE	
BY	
CHECKED	
APPROVED	
DATE	
CURB RAMP DETAILS	
SHEET	2B
OF	X

3. New UBO boxes are now available
 - a. Small one for underground utilities
 - b. Larger one for overhead utilities – added Underground Drop info (check yes or no)

UTILITY OWNER:

STATION: 3+50.82-L- **OFFSET:** 6.29'

DESCRIPTION: **DEPTH (FT):**

PROPOSED GRADE (FT): ___ ' CUT ___ ' FILL

REMARKS:

UTILITY OWNER:

STATION: 3+09.42-L- **OFFSET:** 5.82'

DESCRIPTION: **HEIGHT (FT):**

ATTACHMENT HEIGHTS (FT.):

DUKE ENERGY ___ ' TIME WARNER ___ ' AT&T ___ '
 CDOT ___ ' OTHER ___ ' OTHER ___ '
UNDERGROUND DROP: ___ YES ___ NO

CROSS ARMS: ___ YES ___ NO (IF YES ENTER WIDTH HERE)

PROPOSED GRADE (FT): ___ ' CUT ___ ' FILL

REMARKS:

4. New roadway sample plan set has been added to the CAD Standards.

INDEX OF SHEETS

Cover Sheet 1
 General Notes and Details 2
 Catch Basin Details 2A-2B
 Typical Sections 3 & 3A
 Drainage Summary 3B
 Signs Plan D1-D2
 Plans & Profiles 4-11
 Traffic Control TCF1-TCF2
 Pavement Marking & Signaling Plans PM1-PM2
 Erosion Control Plans EC1-EC3
 Utility By Others UB01-UB02
 Cross Sections X1-X24

TOTAL SHEETS: 46

VICINITY MAP
NTS

Begin Construction
Sta. 20+00 -Y-


811
New York State
Call before you dig.

SURVEY PREPARED BY:

CALYX GPS SURVEY-MAPPING-GIS FROM THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON STATE PLANE COORDINATES ESTABLISHED BY NCDOT MONUMENT OR CONTROL POINT WITH NAD 83 (2011) STATE PLANE COORDINATES OF NORTING51077.397 EASTING: 16484.556 ELEVATION NAVD83 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS A APPROX VERTICAL BATHY. NAVD83 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES. DATE RANGE OF SURVEY: 06/2016 TO 08/2016

PLANS PREPARED BY:

BUILDING
800 East Fourth Street
Charlotte, North Carolina 28202
Phone: (704) 338-2291
Fax: (704) 338-6588
www.charlotte.gov
CITY OF CHARLOTTE
GENERAL SERVICES
PLANNING & DESIGN GROUP



Construction Plans of Proposed Sandy Porter Road/ South Tryon Street Intersection Improvement

Project No. PMES51216020

Project Features:

- Grading
- Storm Drainage
- Concrete Curb & Gutter
- Concrete Sidewalk
- Concrete Storm
- Milling and Asphalt Paving
- Pavement Markings

Begin Project
Sta. 10+00.00 -L-

End Project
Sta. 17+75 -L-

End Construction
Sta. 30+50.00 -Y-

LOCATION MAP
NTS

PROJECT LENGTH = 0.31 MILES

S TRYON ST POSTED SPEED/DESIGN SPEED = 45 MPH/50 MPH

SANDY PORTER RD POSTED SPEED/DESIGN SPEED = 35 MPH/40 MPH

2018 NCDOT STANDARD SPECIFICATIONS

PE SEAL

Record Drawings:

RECOMMENDED FOR CONSTRUCTION

CDOT - Design	Eric Ford	5/16/2021
CDOT - Implementation	Julius Strickland for Eric Ford via email 05/20/21	5/17/2021
CLT Water	Bill Dool via email 05/20/21	5/20/2021
Construction Administration	Marisa Hiza	5/17/2021
Contract Administration	Jada Hiza	5/17/2021
Engineering Services	Paula Hays	5/16/2021
Landscape Management	Jack Liska	5/18/2021
Planning, Design & Development	Not Applicable	
Storm Water Services	Michelle Smith	5/17/2021
Utility Coordination	John Freeman	5/16/2021

GRAPHIC SCALES

Plan View: 0 20 40 60
 Horiz. Profile: 0 20 40 60
 Vert. Profile: 0 1 2 3
 Cross Section: 0 10 20

Bid Set No.

APPROVED [Signature] 6/16/2021
FOR CITY ENGINEER DATE

Thursday, April 16, 2021 4:40:27 PM

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DATE CREATED: JUNE 17, 2021