MORGANTON GREENWAY ALIGNMENT REVIEW

May 14, 2008

GENERAL COMMENTS & PROJECT UNDERSTANDING:

Primary Route:

- North/East side of Green Street from Sterling to Creek Access Point at College
- Green Street Access Point at College St. to Creek Crossing
- Creek Crossing to Mt. View Rec. Ctr. & & Elem. School
- Rec. Center/ Elem. School to Greenway/Catawba Meadows Park

General Comments / Information:

- Two Alignment Maps identify 12 areas of interest for discussion.
  1. Downtown/Sterling to Green St. /Creek Access
  2. Green St. /Creek Access to River)
- Each area identifies issues for constructing the greenway path and possible solutions or alternative.
- Pedestrian connections will continue into the downtown area along Green or Sterling via "Downtown Streetscape Improvements".
- After viewing the site if appears "off street" bike paths, separate from pedestrian lanes will be very difficult to attain along Green St.
- Roadway cross-section measurements revealed that bike lines within the road cross-section provided a less than desirable buffer between pedestrian walks and the roadway. In addition, safety for "less experienced riders" was still a concern. Therefore, bike access for less experienced riders was placed on a multi-purpose/multi modal path along the north/east side of Green Street (see Exhibits). The logic is that experienced riders will continue to use the road lanes as they do currently.
- Utility poles on north/east or "creek side" of the street must be moved to accommodate walk improvements (Bell South poles, some used/shared with Cable TV and Power).
- Relocation of utilities & trail/path construction will require temporary easements & possibly permanent.
- Lane or centerline adjustments may require resurfacing (or grinding) due to the roadway crown (DOT approvals?).

Area/Location – 1 Green Street @ Sterling

(See Exhibit-1 & Concept 'B' Typical Section 9 & 8)

- Existing walks in the area are wide and can accommodate the proposed 9 or10-ft path (a buffer strip can be provided for panting and utilities)
- Buffer strip will be 6'-4" to '7'-4" typ. to provide separation of auto/bike and pedestrians (depends on the desired width of walk)
- The existing island can be used as an "Island of Rescue" for crossing the intersection.
- Pedestrian crossing are proposed as "Raised/ Table Top" (wide is good and stamped is better).
- Buffer strip can be used for pole relocations.

Area/Location – 2/3 Green Street @ Shift
(Exhibit-2/3 & Concept 'B' Typical Sections 3 thru 8)

- Walks in the area are to be expanded to 9 -ft. by moving curb line toward the centerline if the street.
- The transition/shift assisted with providing a larger buffer strip.
- The buffer strip will be variable (min. 5-2" at Section 7).
- Buffer strip can be used for pole relocations and landscape plantings.

Area/Location – 4 Green Street @ Creek Access
(Exhibit-4 & Concept 'B' Typical Sections 1thru 3)

- Typical Section from Caldwell to College.
- Walks in the area are to be expanded to 9-ft.
- Walk expansion creates a large "buffer strip" that will be dependent on the turn lane configuration for College.
- Buffer strip can be used for pole relocations and landscape plantings.

Area/Location – 5 Green Street @ Creek Access (Exhibit-5)

- The route from Green Street to behind the paint store can be accomplished at grades just under 5% (approximately 200 feet from the street). From this point, achieving a trail at 5% grade requires added easements and more walls along the trail.
- A concept was reviewed using disabled access slopes of 8.33% (1"V:12"H) with landings every 30-ft.
- The 8.33% Slopes allow access down to the creek and the solution requires walls that average 4-5-ft in height and run approximately 800-feet in length (see typical section Exhibit 5).
- The path crosses the creek to access the south side of the Recreation Center near 2nd St. or ±1000-feet from Green Street.
- Outside walls could be constructed of gabion walls or segmented/unit structure wall material (such as Versa-lock, Keystone, Pavestone-Anchor etc) If gabion material is used it needs to be dressed to limit wire protrusions into the walkway.
- A railing is needed on the outside edge of the route where walls are used
- The inside wall should be constructed of a finished material to eliminate potential protrusions into the walkway.
- The 8.33% slope is not bike friendly and presents a potential liability. Signage needed to restrict bike riding, skateboarding etc. (still a liability concern even with designations for safe use)
- If a solution could achieve a 5% continuous slope, it would be better but remains a "Precarious" condition for bike access.

Area/Location – 6 Arch Pipe /Creek Crossing Exhibit (Exhibit-6)

- The crossing must disturb less than 150-ft of creek channel. The best solution is to used a "natural or – open bottom channel solution such as an arch-pipe to limit impacts as determined by the USACE and NCDENR.
- Maintains 4-ft clear over a 6-ft or -8ft structure/arch

Area/Location – 7 Neighborhood Access

- Neighborhood access point at this location need stairs to limit disruption and fit the slope
- Location provides can also provide access to the center
- Additional points of access can be provided between point #6 & #7 (possible location is at 3rd St.)

Area/Location – 8 Park/Rec. Center Access Point

- Connect with future walks at access drive and planned "training/camp" park improvements

Area/Location – 9 School Access Point

- Connection with future walks at Alphabet to access "Above Grade Crossing" Option
- Connects with alternative route to "At Grade Crossing" Option

Area/Location – 10 Below Grade Option
(Exhibit-10 & 10A)

- The route requires input on construction from NCDOT.
- Duke Power ROW conflicts with access due to angle of approach (not difficult to overcome) but Walls along the ROW will be within the Duke ROW and will need reviewed.
- The tunnel/box-culvert must go under a 42" sanitary outfall in order to cross Sanford Drive
- Hydraulic analysis must be performed on the existing 54" culvert to determine the affects of runoff on the proposed elevation of the tunnel.
- Route to below grade can be used to connect to "At Grade Crossing" proposed at Bouchelle (also allows bike connection along Sanford from Green St)

Area/Location – 11 Above Grade Option

- Electrical lines must be routed underground to accommodate bridge crossing
- Height of crossing will require minimum of 400-500LF of run-out to get clearance over Sanford Drive.
- Visible crossing helps with security perception issues
- Very costly option

Area/Location – 12 At Grade Option

- Offers economical option until other crossings can be funded
- Safe Crossing Location — outside edge of Sanford curve makes for better sight lines
- Path can be achieved along Alphabet to Sanford, Alphabet to Bouchelle, or through School site

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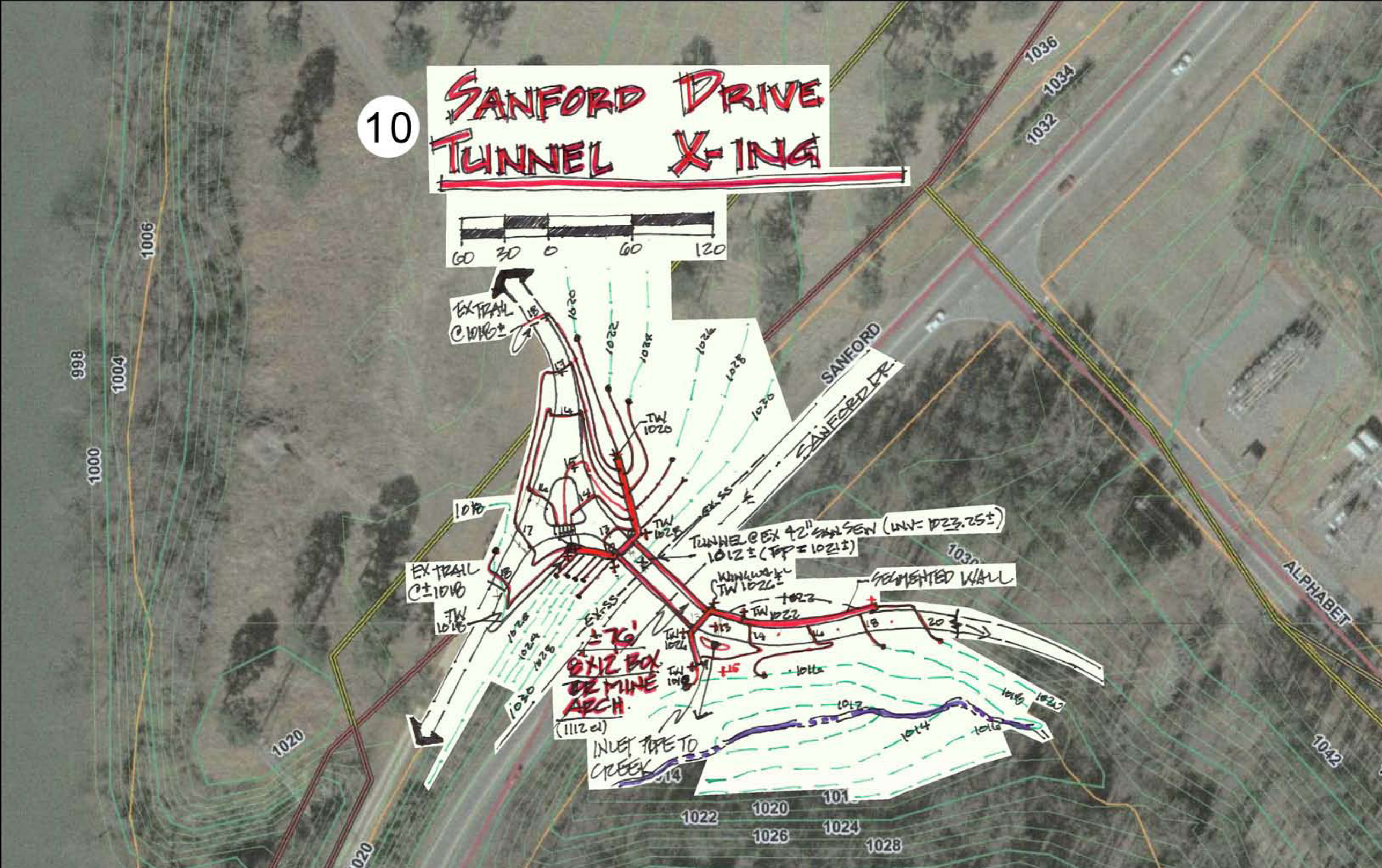
GREEN STREET/CREEK ACCESS TO RIVER


10
SANFORD DRIVE
TUNNEL X-ING
60 30 0 60 120
EXTRAIL @1018±
TW 1020
TUNNEL @ EX 42" SAN SEW (INV= 1023.25±)
1012± (TOP = 1021±)
EX TRAIL @±1018
TW 1018
WINGWALL TW 1026±
SEGMENTED WALL
±76'
8X12 BOX OR MINE ARCH.
(1112 el)
INLET PIPE TO CREEK
SANFORD
SANFORD DR
ALPHABET
1036
1034
1032
1006
1004
1000
998
1020
1022
1024
1026
1028
1030
1042