



MEMORANDUM

TO: Honorable Mayor and City Council, Project Management Team
c/o Jeff Hulsether, PE – City Engineer

FROM: Scott D. Hedlund, PE, PMP

DATE: September 6, 2016

RE: Brainerd Lakes Regional Airport Utility Extension
Bi-Monthly Project Status Update
SEH No. BRDMN 131759 20.00

The following is an update on the status of the Construction Phase of the project:

- I. Construction Progress
 - A. Construction started April 11, 2016 in the Lum Park area.
 - B. Horizontal Directional Drilling (HDD)
 1. Area 1
 - a. 12-inch gravity sanitary sewer under Lum Park Road has been installed.
**(1) Sag in pipe needs to be corrected by open cutting with detour.
(a) This work is planned for September.**
 - b. 6-inch sewer force main between Pine Shores Road and Jordan Road has been installed.
 - c. 12-inch water main between the new booster station site in Lum Park and 13th Avenue NE, and along 13th Avenue NE between I Street and TH 210 has been installed.
 - d. 16-inch water main under Lum Park Road has been installed.
 - e. **16-inch water main along TH 210 between Lum Park Road and Jordan Road has been installed except for a 140 foot stretch near the future crossing.**
 - f. 12-inch water main between Jordan Road and Whiteley Creek has been installed.
 - g. 12-inch gravity sewer along TH 210 between Lum Park and Pine Shores Road (between manholes SS4 and SS10) has been installed.
 - h. 10-inch gravity sewer between Whiteley Creek and Jordan Lift station has been installed.
 - i. **10-inch gravity sewer between Whiteley Creek and TH210 crossing by airport has been installed.**
 - j. **10-inch gravity sewer on airport side of TH 210 near airport has been installed.**

- k. **12-inch water main between Whiteley Creek and the diagonal TH 210 crossing near the airport installation started 9/6/16 and is planned for completion by the end of the week.**
 - l. **12-inch water main on the airport side of TH 210 north of the diagonal crossing is planned for the week of 9/12/16, followed by sewer and water crossings of Whiteley Creek the following week.**
 - m. **Ongoing grade verification and testing of all HDD installed pipe.**
- 2. Area 2
 - a. 6-inch sewer force main pipe has been installed.
 - (1) Flushing and testing remains.**
- C. Jack Bore Steel Casings Under TH 210 (Project Area 1)
- 1. Sewer and water crossings approximately 400 feet east of Lum Park Road
 - a. Casing and sanitary sewer carrier pipe have been installed.
 - (1) A change order for extra time to complete the pilot hole due to boulder obstructions is planned for approval consideration at a future City Council meeting.
 - b. **Casing for water main started, hit boulder obstruction 50 feet on 6/10/16.**
 - (1) Change Order No. 3 changing to hammer installation method was accepted by the City Council on 8/15/16.**
 - (2) Plan to resume installation mid-September pending dewatering progress.**
 - 2. Water crossing at Ash Ave
 - a. Casing and carrier pipe have been installed.
 - 3. Water crossing at Wonderland Park Road cul-de-sac
 - a. Casing and carrier have been installed.
 - 4. Sewer and water crossing at Pine Shores Road
 - a. Casings and carrier pipes have been installed.
 - 5. **Sewer and water crossing at future stubs between Pine Shores Road and Jordan Road**
 - a. **Casings and carrier pipes have been installed.**
 - 6. **Sewer and water crossings at diagonal crossing by the Airport.**
 - a. **Sewer casing planned for installation the week of September 5th.**
 - b. **Water casing planned for late September.**
 - 7. **Sewer and water crossings at Jordan Road**
 - a. **Casings and carrier pipes have been installed.**
 - (1) Planned to start late September after Lum Park and diagonal crossings.**
- D. Open cut sewer and water (Project Area 1)
- 1. 12" sanitary and manholes from the Lum Park lift station to manhole SS 4 have been installed and connected.
 - a. Verification of grades and testing remains.
 - 2. **8" sanitary south from the Jordan Road Lift Station junction manhole has been installed.**
 - 3. 16" water main between the north side of Lum Park Road and TH 210 has been installed up to the jack bore pit.
 - 4. **16" water main along TH 210 between Lum Park Road and Jordan Road has been installed except for a 140 foot stretch near the future crossing.**
 - 5. **Ongoing open cut sewer and water pipe, manholes, valves, hydrants, and tie-ins; and testing.**
- E. E Street open cut sewer (Project Area 3)
- 1. All planned sewer has been installed.
 - a. Testing and televising remains.

2. E Street has been final paved.
 3. After review of televising tapes showed a sag in the sewer pipe beyond specified tolerances, it was determined the newly installed sewer east of 8th Ave NE needs to be dug up and relayed to planned grades at Tom's Backhoe Service's expense.
 - a. **This work is planned in September.**
- F. Lum Park lift station/booster station site (Project Area 1)
1. **Underground piping has been installed.**
 - a. **Grade verification and testing remains.**
 - b. **The gravity sewer under Lum Park Road that connects SS 1 and 2 needs open cut grade correction.**
 2. Booster station soil corrections have been completed and footings have been installed.
 3. **Foundation footings, footing walls, and base slab have been poured.**
 4. **Booster station building is planned for delivery in mid to late September.**
- G. Jordan Road lift station
1. **The wetwell structure has been installed.**
 2. **The valve manhole installation and pipe connections remain.**
- H. Dewatering
1. Ongoing dewatering operations in the vicinity of Jordan Road and Whiteley Creek.
 2. **Tom's Backhoe has been working with Minnesota Department of Natural Resources (DNR) submitting weekly pumping data etc for the project dewatering permit.**
 - a. The DNR issued a cease and desist order to stop dewatering that affects Whiteley Creek on August 8th until the permit details get resolved.
 - b. **There has been no further correspondence from the DNR.**
 3. Two property owners on northwest side of TH 210, east of Wonderland Park Road continue to be connected to a temporary above ground water system served from existing water main on Wonderland Park Road.
- I. Cured In-Place Pipe (CIPP) work (Project Area 4) on E Street west from League Ave NE
1. Lining of the existing sanitary sewer has been completed.
 2. **Manhole rehabilitation work remains.**
- II. Construction Schedule/Staging
- A. The Contractor has conveyed the following general construction schedule/staging plans (subject to change):
1. Complete most of the work in the Lum Park area outside of the lift station site in August.
 - a. **Open cut sewer re-work under Lum Park Road is planned for September.**
 - b. **Lum Park Road will be closed by the lift station site and a detour around the site will be posted.**
 2. Ongoing booster and lift station site construction in Lum Park.
 3. Continue pipe installation in Area 1 along and under TH 210 generally moving east from Lum Park.
 - a. Jack bores are planned to continue through September.
 - b. HDD work is planned to continue through August.
 - c. Ongoing open cut manhole, pipe, and tie-in work.
 4. Area 2 work is near substantially complete, testing remains.
 5. Complete (Area 3) E Street final paving and turf restoration by the end of August.
 - a. **Sewer and street restoration re-work east of 8th Ave NE is planned for September.**
 6. Complete sewer lining on E Street corridor west of 1st Avenue NE (Area 4) in August.
- B. To help address the consultant team's observations that the Contractor's original schedule may be slipping, SEH created a computer generated sequencing and scheduling plan from

the first two schedules submitted by the Contractor, shared them with the Contractor, and discussed with the project team.

1. With Application for Payment No. 2, SEH implemented the changes/updates the Contractor wanted into an updated sequencing and scheduling plan dated June 13, 2016 and distributed to the project team.
 - a. This has been the process each subsequent month as the project has moved forward.
2. **On August 29, 2016 the Contractor submitted a 46-day Contract Time Extension request.**
 - a. **SEH is in the process of reviewing the request.**

III. External Communications

- A. The latest monthly project update construction newsletter to property owners along the project corridor was mailed out July 15th.
- B. A separate mailing to Area 4 property owners only went out June 24th advising that sewer lining work on E Street is planned to start in the next few weeks.
- C. A separate mailing to Area 1 property owners west of TH 210 off the Pine Shores Road/ Jordan Road loop was mailed out July 15, 2016 advising that the Pine Shores Road access to TH 210 would be closed for 7 – 10 days starting on or around July 18th to facilitate utility construction, and that there will be a posted detour and guide signs.
- D. Project website → <http://www.sehinc.com/online/brd>
 1. Has monthly construction project update newsletters, project location map, PMT meeting minutes, City update memos, and basis of design report available for viewing and download.

IV. Overall Schedule

- A. Construction
 1. City Council Award Construction Contract: February 22, 2015
 2. Notice To Proceed: March 17, 2016
 3. Preconstruction Conference: April 5, 2016
 4. Started Construction: April 11, 2016
 5. Weekly Construction Progress Meetings: Tuesdays at 9:30am, Lum Park (subject to change)
 6. Contract Construction Substantial Completion Date: October 21, 2016
 7. Contract Construction Final Completion Date: December 14, 2016

V. Budget Status

- A. Construction Contract (low bid Tom's Backhoe Service): \$8,591,721.58
 1. Applications For Payment
 - a. Work Through 7/29/16:
 - (1) Work Certified (including Materials Stored On-Site): \$3,706,465.71
 - (2) Retainage (5%): \$185,323.26
 - (3) Total Amount Eligible To Be Paid To Date: \$3,521,141.88
 - b. **Payment #4 for \$1,430,040.17 was approval by the City Council on 8/15/16.**
 2. Change Orders:
 - a. Change Order No. 1 for \$9,750 for adding a necessary sewer force main air release manhole at the intersection of 13th Avenue NE and I Street was approved on 5/16/16.
 - b. Change Order No. 2 for -\$775.00 for combination of adding casing lengths in certain areas to avoid existing private utilities and a credit for reducing casing diameters for all 8-inch water main carrier pipe was approved by the city council on 7/5/16.

- c. **Change Order No. 3 for \$88,037.50 for addressing a boulder obstruction in the Lum Park / TH 210 jack bore steel casing installation by switching installation methods was accepted by the city council on 8/15/16.**
 - d. **Change Order No. 4 for \$27,490.00 for removal of buried concrete rubble along TH 210 water main trench through Anderson Brothers Construction's yard was accepted by the city council on 8/15/16.**
 - e. Change Order No. 5 for -\$260,792.93 for eliminating the gravity sewer between manhole SS#10 and Pine Shores Road due to buried concrete rubble making directional drilling infeasible was approved by the city council on 7/18/16.
 - f. A future change order related to extra time spent by the jack/bore subcontractor at the jack bore steel casing installations addressing boulders in casing paths at Lum Park crossings is anticipated.
- B. Consultant budget (construction):
- 1. Approved construction services contract: \$623,092.00.
 - 2. Invoiced to date: \$335,566.16.
 - 3. **Scope changes:**
 - a. **It is anticipated that a fee amendment request will be brought forward by October as budgeted overall construction contract hours are projected to be exceeded. The amount of the increase is anticipated to be near the original proposed consultant construction contract amount.**
 - b. **The intensity of construction observation needed to date continues to be higher than assumed for the SEH contract. The Contractor has been working at times 6 – 7 days a week during daylight hours. Earlier in the project this additional work effort was expended without significant effect on overall project progress. The Contractor has advised that this high intensity work is planned to continue through October.**
 - (1) **The SEH contract assumed on average 10 hours a day, 5 days a week for construction observation.**
 - c. **Corrective work has also impacted the SEH contract budget. For example there have been multiple segments of HDD installed gravity sewer and one segment of open cut installed gravity sewer where installed grades/sags fell outside of specified tolerances and open cut corrections after initial installation were / are necessary. Some areas have been corrected and others are pending. While some corrective work is a normal part of construction and needs to be observed, the extent of grade corrections needed on this project is above normal – thus requiring more adjusting of grades, re-staking, and observation.**
 - d. **A Contract Time Extension request was submitted by the Contractor on August 29, 2016 requesting a total of 46 additional days citing unusually high rainfall this summer among other things. SEH is in the process of reviewing the claim. While our initial review does not indicate all the time requests are justifiable, it does appear the number of rain events / amount of rain has caused a slowdown in and less productive work on several days. Thus, we do see some level of justifiable extension of Contract Time. Thus SEH contract time / hours will need to be increased too.**
 - (1) **The SEH contract assumed construction services only within the original contract dates.**
 - e. **The consultant contract is hourly and will continue to be monitored.**

Attachment – project location map
sh

BRAINERD AIRPORT UTILITY EXTENSION BRAINERD, MINNESOTA PUBLIC IMPROVEMENT NUMBER 14-15

PLAN REVISION SUMMARY			
1	JLS	01/12/16	ADDENDUM 1 - COMPLETE SET
2	BDY	03/28/16	ADDENDUM 2 - 01C3, 01P6, 01P8, 01E16, 04C2
3	BDY	03/28/16	ADDENDUM 3 - 01C3, 01P6, 01E13, 01E15, 01P1, 01C3, 01C8, 01C13, 01C19, 04C2
4	BDY	03/28/16	ADDRESS MOH PLAN REVIEW COMMENTS - 01C5, 01C11, 01C21, 01P2, 01P3, 02C4, 02C5



Know what's below.
Call before you dig.



CONSTRUCTION DOCUMENTS

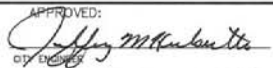
PROJECT LOCATION



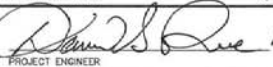
BRAINERD, MINNESOTA

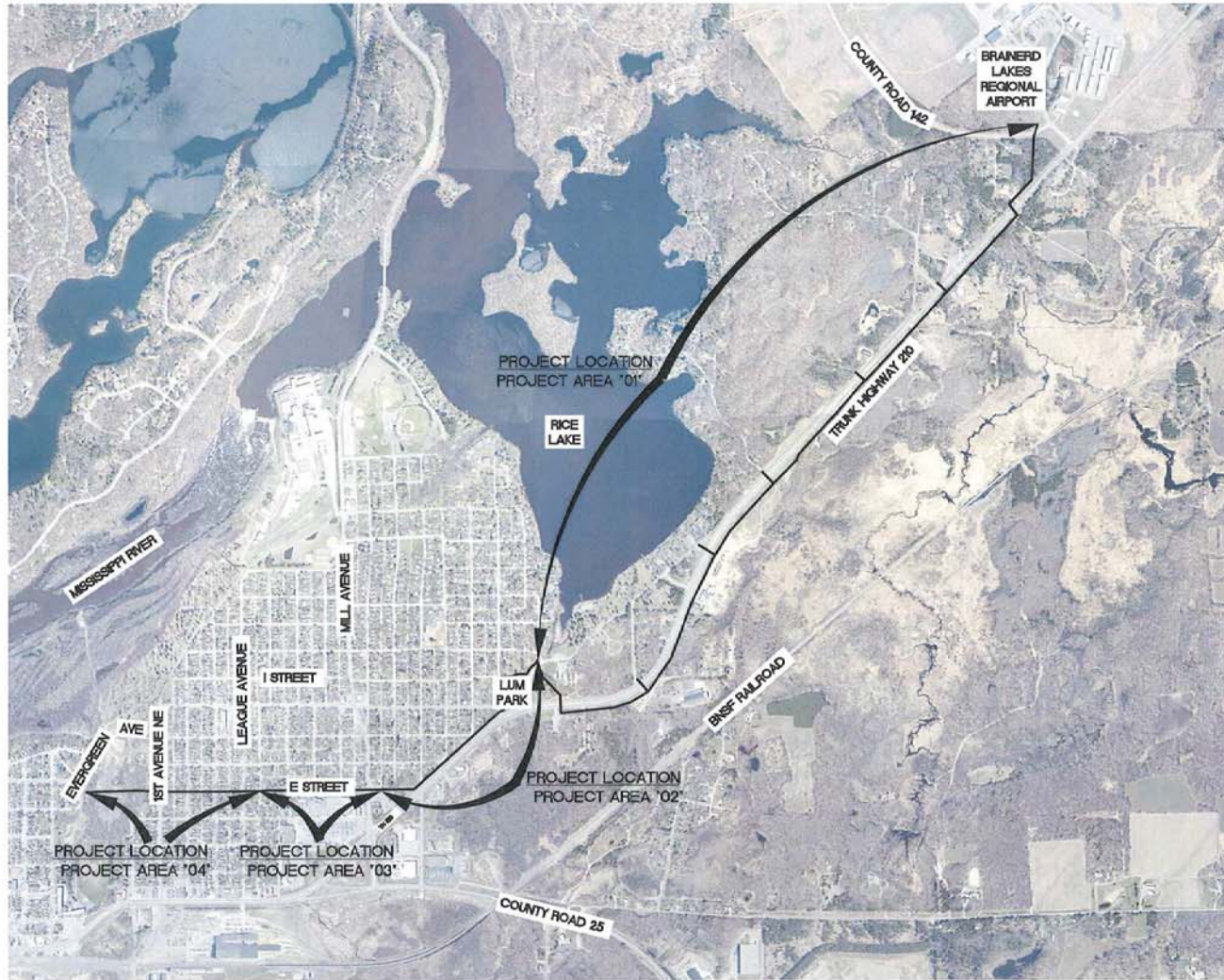
CITY OFFICIALS

MAYOR _____ ED MEIK
 CITY ADMINISTRATOR _____ JIM THOREEN
 CITY COUNCIL _____ SUE HILGART
 _____ MARY KOEP
 _____ CHIP BORKENHAGEN
 _____ DAVID PRITSCHET
 _____ KELLY BEVANS
 _____ GARY SCHEELER
 _____ GABE JOHNSON
 CITY ENGINEER _____ JEFF HULSETHER
 PUBLIC UTILITIES _____ SCOTT MAGNUSON

APPROVED:  12-21-15
 CITY ENGINEER DATE

 12-21-15
 PROJECT MANAGER DATE

 12-21-15
 PROJECT ENGINEER DATE



NOTE:
 THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL 0. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
 THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.

GGI

P:\A01\PROJECTS\1317169\1317169.dwg (3/28/2015 2:18 PM) jgornitz