Permit No.	Date	DIN
4504	**October 27, 2010**	**11970**

McGill ASSOCIATES

RECEIVED
October 4, 2010
Solid Waste Section
Asheville Regional Office

October 1, 2010

APPROVED DOCUMENT
Division of Waste Management
Solid Waste Section
Date **November 30, 2010** By **LY Frost**

Mr. Larry Frost
Solid Waste Permitting Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
2090 U.S. Highway 70
Swannanoa, North Carolina 28778

RE: Request For Permit Modification
Capital Improvements Project
Stoney Mountain Road Landfill
Henderson County, North Carolina
Permit # 45-04-T

Dear Mr. Frost:

On behalf of Henderson County, McGill Associates is pleased to make this submittal for a minor modification/update to the existing Permit to Construct for the proposed Capital Improvements Project at the Stoney Mountain Road Landfill Facility, Permit #45-04-T, in Henderson County, North Carolina. As we discussed the other week, the County would like to include some upgrades/modifications to Transfer Station No. 2 as well as modify the discharge piping associated with the entrance trench drain system at Transfer Station No. 1. For reference, Transfer Station No. 2 is the newer/larger of the two transfer stations.

The proposed plan is to modify the discharge piping from the existing trench drain system at the entrance to Transfer Station No. 1. The plan is to increase the size of the discharge line and provide a more direct route to a proposed manhole to be located to the west of Transfer Station No. 2. The existing drain lines will be removed and/or capped/plugged as a part of this proposed construction. The proposed plan also includes removing and replacing the entire entrance trench drain system and piping associated with Transfer Station No. 2. This is needed as the grating system associated with the trench drain is beginning to fail as is the liquid collection and discharge piping system. The proposed drain line from the new trench drain will also discharge directly to the proposed manhole to be located to the west of Transfer Station No. 2. As with Transfer Station No. 1, the existing drain lines will be removed and/or capped/plugged as a part of this construction. From the proposed manhole, located immediately to the west of Transfer Station No. 2, a larger direct discharge line will be installed to the existing sanitary sewer manhole located further west and down gradient of Transfer Station No.

2. The proposed upgrades should improve the County's ability to collect and manage the liquid waste collected in the trench drain systems located at the entrances to the two transfer stations.

In addition to the proposed upgrades to the entrance trench drain systems, the County has included as a part of the Capital Improvements Project, the removal and replacement of the tipping floor surface in Transfer Station No. 2.

To facilitate your review of the proposed improvements, I have enclosed a copy of Sheet C-102, Scale Area Site Plan, which shows the location of the proposed new manhole and the associated discharge piping. The proposed improvements/upgrades to the piping systems and the new trench drain system for Transfer Station No. 2 is shown on the enclosed Sheet C-508, Miscellaneous Details. Sheet C-508 also includes the details for the tipping floor replacement associated with Transfer Station No. 2. I have enclosed a computer disk with the aforementioned drawings in electronic format for your use.

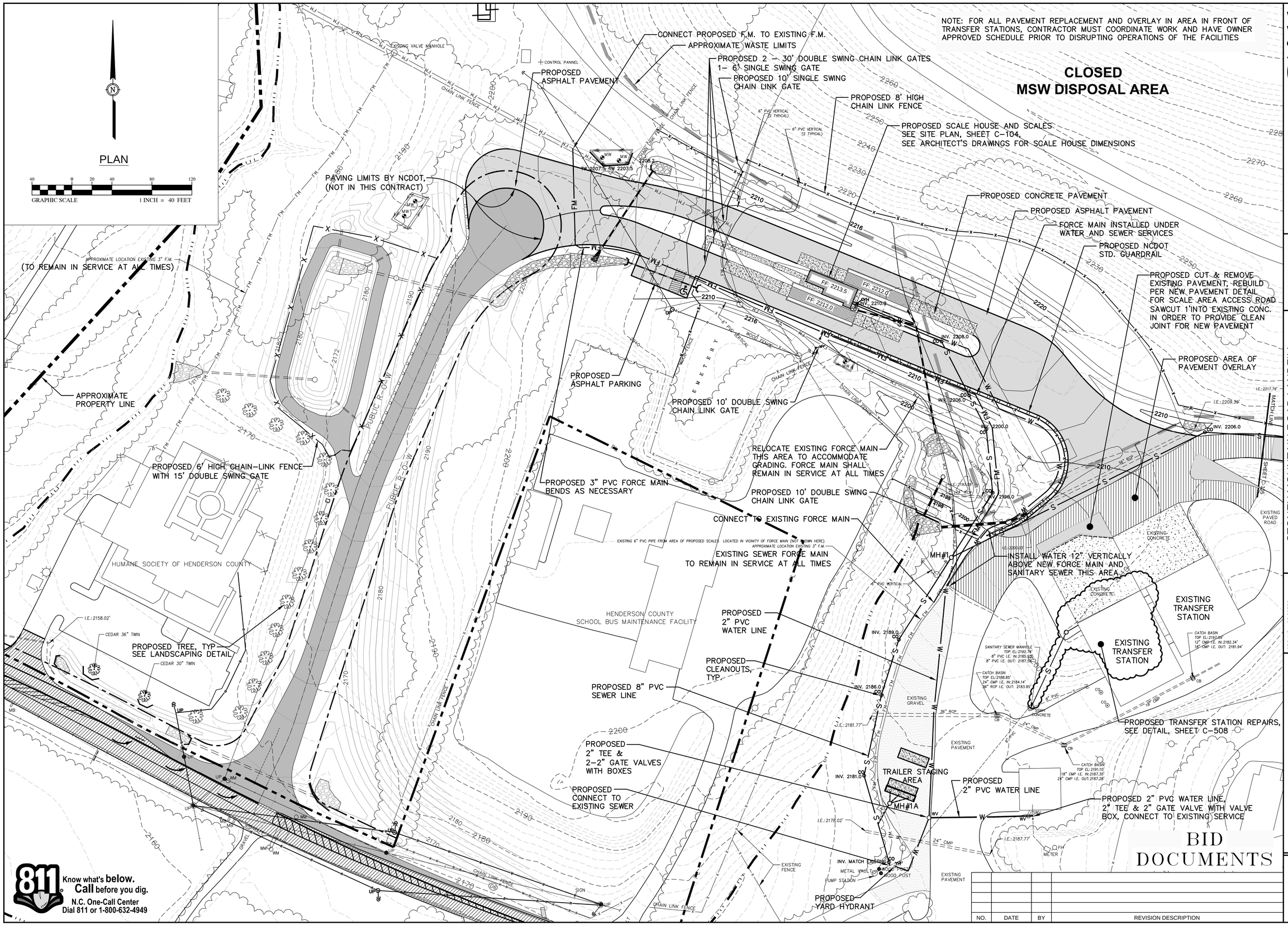
We appreciate your assistance with this project and look forward to getting the actual construction underway. Please do not hesitate to contact us if you any questions or require additional information.

Sincerely,
McGILL ASSOCIATES, P.A.

WILLIAM H. SPERRY, PE
Project Manager

Enclosures

cc: Steve Wyatt, Henderson County Manager, w/o enclosures
Marcus Jones, PE, Henderson County Director of Engineering, w/o enclosures
Natalie Berry, Assistant Henderson County Engineer, w/o enclosures
Mark Cathey, PE, McGill Associates, w/o enclosures



NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
ENGINEERING·PLANNING·FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024993 MARK D. CATHEY

STONEY MOUNTAIN ROAD LANDFILL
CAPITAL IMPROVEMENTS PROJECT
CONSTRUCTION PLANS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 09.00728
DATE: AUGUST, 2010
DESIGNED BY: DP
CADD BY: DP
DESIGN REVIEW: JRB
CONST. REVIEW: MKW
FILE NAME: 09.00728 C-102 Scale Area Site Plan.dwg

SCALE AREA SITE PLAN

SHEET
C-102

Q:\2009\09.00728\Design\Solid Waste\Drawings\Permit To Construct\To Larry Frost _ 9-29-2010\09.00728 C-102 Scale Area Site Plan.dwg 9/30/2010 2:38 PM KELLY

TIPPING FLOOR REPAIR NOTES: – BASE BID

1. TRENCH DRAIN AND EXISTING SURFACE TOPPING TO BE REMOVED AND STRUCTURAL SLAB PREPARATION WORK TO BE PERFORMED PRIOR TO CONSTRUCTING PROPOSED IMPROVEMENTS.

2. DEMOLITION SHALL BE ACCOMPLISHED USING A MECHANICAL SCRABBLER, SHOTBLASTER OR MILLING MACHINE. THE USE OF HAND HELD/HAND OPERATED JACKHAMMERS WILL BE ALLOWED WITHIN TWO FEET (2') OF THE EXISTING CONCRETE PUSH WALLS AND THE OPEN FLOOR CHUTE. EQUIPMENT MOUNTED AIR OR HYDRAULICALLY OPERATED HOE RAMS WILL NOT BE ALLOWED. REMOVE THE EXISTING SURFACE TOPPING TO THE UNDERLYING STRUCTURAL SLAB. CARE SHOULD BE TAKEN NOT TO DAMAGE THE EXISTING CONCRETE PUSH WALLS, METAL EDGE PLATES AT THE CHUTE OPENING OR THE NEWLY INSTALLED TRENCH DRAIN. ANY STRUCTURAL DAMAGE RESULTING FROM THE USE OF JACKHAMMERS MUST BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER.

3. AFTER DEMOLITION THE EXPOSED SURFACE SHALL BE THOROUGHLY CLEANED BY WATER BLASTING OR SANDBLASTING TO REMOVE ALL LOOSE OR WEAKENED MATERIAL. THE UNDERLYING STRUCTURAL SLAB WILL BE THOROUGHLY INSPECTED FOR ANY DAMAGE BY THE ENGINEER. IF REQUIRED BY THE ENGINEER THE CONTRACTOR WILL REPAIR NOTED IMPERFECTIONS IN THE STRUCTURAL SLAB RESULTING FROM DEMOLITION/REMOVAL OF THE EXISTING 3" SACRIFICIAL SLAB PRIOR TO PLACING THE BOND BREAKER. REPAIR PRODUCT WILL BE APPROVED THROUGH THE SUBMITTAL PROCESS.

4. ONCE THE SURFACE OF THE UNDERLYING STRUCTURAL SLAB HAS BEEN PREPARED, PLACE A BOND BREAKER BY (MASTER BUILDERS), OR APPROVED EQUAL, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

5. PLACE A MINIMUM OF 4" THICK CONCRETE SLAB WITH A UNIFORM SLOPE FROM THE PUSH PIT (CHUTE OPENING) TO THE ENTRANCE TRENCH DRAIN. CONCRETE SHALL BE 5,000 PSI CONCRETE WITH A MINIMUM OF 70 POUNDS PER CUBIC YARD OF NOVOCON XR STEEL FIBER, WITH A MINIMUM FIBER LENGTH OF 1.5", AS MANUFACTURED BY PROPEX CONCRETE SYSTEMS CORP OR APPROVED EQUAL. STEEL FIBERS TO BE ADDED TO AND DISPERSED UNIFORMLY THROUGHOUT THE CONCRETE MIX IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONCRETE SHALL HAVE A SMOOTH SURFACE FINISH. NO MECHANICAL FINISHING EQUIPMENT WILL BE PERMITTED. FLOAT FINISH ONLY.

6. ONCE THE NEW CONCRETE SURFACE TOPPING HAS INITIALLY SET, SAW CUT EXPANSION JOINTS IN THE SAME LOCATION AS THE EXPANSION JOINTS IN THE UNDERLYING STRUCTURAL SLAB. CONTRACTOR TO CAREFULLY MEASURE AND DOCUMENT THE LOCATION OF EXPANSION JOINTS IN THE STRUCTURAL SLAB. SAW CUT JOINTS ARE TO BE CLEANED AND FILLED TO WITHIN 1/4" BELOW THE SURFACE WITH A SEMI-RIGID TWO-COMPONENT POLYUREA CONTROL JOINT FILLER, (JOINT TITE 750) BY L&M CONSTRUCTION CHEMICALS, INC., OR APPROVED EQUAL.

7. AFTER INITIAL SET, MOIST CURE FOR A MINIMUM OF SEVEN (7) DAYS USING SPRINKLERS, BURLAP OR OTHER TYPE BLANKET COVERINGS, AND/OR SOAKER HOSES.

8. NEW CONCRETE SHALL BE OPEN TO TRAFFIC NO EARLIER THAN FOURTEEN (14) DAYS AFTER INITIAL SET.

9. CONTRACTOR TO BEGIN WORK ASSOCIATED WITH TRANSFER STATION NO. 2 REPAIRS/IMPROVEMENTS ONCE THE WORK ASSOCIATED WITH THE CITIZEN'S CONVENIENCE CENTER WITH ACCESS ROAD AND ALL UTILITIES AND APPURTENANCES ASSOCIATED WITH THIS WORK AREA, RECYCLING AND MSW DROP-OFF AREA AND THE C&D DROP-OFF AREA ARE COMPLETE AND IN OPERATION.

10. CONTRACTOR TO COMPLETE ALL WORK ASSOCIATED WITH THE REPAIRS/IMPROVEMENTS TO TRANSFER STATION NO. 2 WITHIN 30 CALENDAR DAYS ONCE WORK COMMENCES; HOWEVER, ALL WORK SHOULD BE COMPLETED WITHIN 365 CALENDAR DAYS AFTER NOTICE TO PROCEED.

TIPPING FLOOR REPAIR NOTES: – ALTERNATE BID

1. TRENCH DRAIN AND EXISTING SURFACE TOPPING TO BE REMOVED AND STRUCTURAL SLAB PREPARATION WORK TO BE PERFORMED PRIOR TO CONSTRUCTING PROPOSED IMPROVEMENTS.

2. DEMOLITION SHALL BE ACCOMPLISHED USING A MECHANICAL SCRABBLER, SHOTBLASTER OR MILLING MACHINE. THE USE OF HAND HELD/HAND OPERATED JACKHAMMERS WILL BE ALLOWED WITHIN TWO FEET (2') OF THE EXISTING CONCRETE PUSH WALLS AND THE OPEN FLOOR CHUTE. EQUIPMENT MOUNTED AIR OR HYDRAULICALLY OPERATED HOE RAMS WILL NOT BE ALLOWED. REMOVE THE EXISTING SURFACE TOPPING TO THE UNDERLYING STRUCTURAL SLAB. CARE SHOULD BE TAKEN NOT TO DAMAGE THE EXISTING CONCRETE PUSH WALLS, METAL EDGE PLATES AT THE CHUTE OPENING OR THE NEWLY INSTALLED TRENCH DRAIN. ANY STRUCTURAL DAMAGE RESULTING FROM THE USE OF JACKHAMMERS MUST BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER.

3. AFTER DEMOLITION OF THE SACRIFICIAL SLAB, THE STRUCTURAL SLAB SHALL BE CAREFULLY MILLED/GROUND A MINIMUM OF 1/2" OR AS NECESSARY TO ENSURE A UNIFORM SLOPE FROM THE PUSH PIT (CHUTE OPENING) TO THE ENTRANCE TO THE TRENCH DRAIN.

4. THE TOP SURFACE OF THE STRUCTURAL SLAB MUST THEN BE SCARIFIED AND LEFT SOUND BUT IRREGULAR, EXPOSING THE TOP MOST SURFACE OF THE COURSE AGGREGATE WITH A MINIMUM AMPLITUDE OF 1/4" BETWEEN PEAKS AND VALLEYS.

5. AFTER SURFACE PREPARATION, THE EXPOSED SURFACE SHALL BE THOROUGHLY CLEANED BY WATER BLASTING OR SANDBLASTING TO REMOVE ALL LOOSE OR WEAKENED MATERIAL. THE UNDERLYING STRUCTURAL SLAB WILL BE THOROUGHLY INSPECTED FOR ANY DAMAGE BY THE ENGINEER.

6. ONCE THE SURFACE OF THE UNDERLYING STRUCTURAL SLAB HAS BEEN PREPARED, PLACE A BONDING SLURRY, (EVERBOND), BY L&M CONSTRUCTION CHEMICALS, INC., IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. PLACE A MINIMUM OF 1-1/2" OF EMERYTOP 400, AS MANUFACTURED BY L&M CONSTRUCTION CHEMICALS, INC., IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND/OR RECOMMENDATIONS.

8. FINISH CONCRETE SURFACE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND/OR RECOMMENDATIONS.

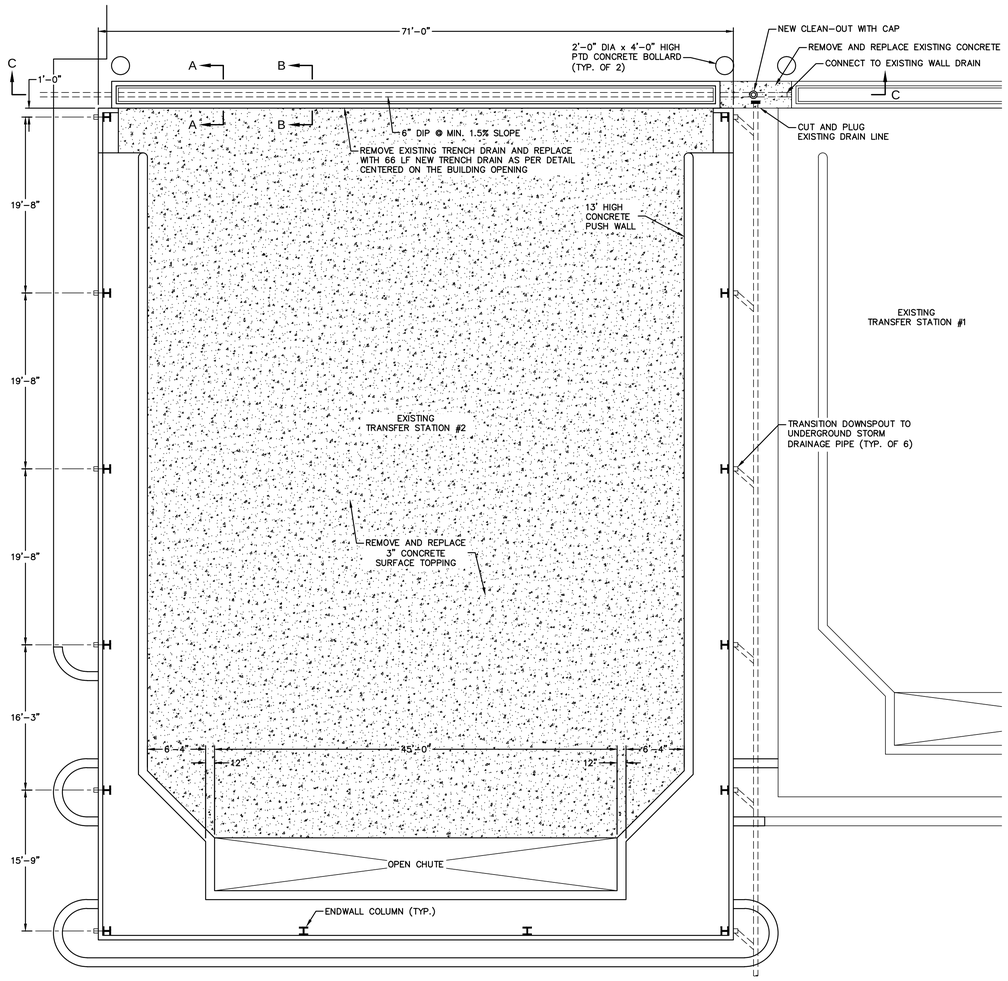
9. SAW CUT JOINTS AS SOON AS THE SURFACE PERMITS THE WEIGHT OF THE SAW WITHOUT CAUSING THE TOPPING EDGES TO RAVEL. CUT THE JOINTS THROUGH THE TOPPING AND INTO THE JOINTS OF THE SUBSTRATE CONCRETE.

10. WET CURE SURFACE TOPPING FOR SEVEN (7) DAYS, COVERING SURFACE WITH CONCRETE CURING COVER MATERIALS OR CURING BLANKETS. AFTER SEVEN (7) DAYS, REMOVE CURING COVER, ALLOW TO DRY AND THEN CONTINUE CURING WITH TWO COATS OF HIGH SOLIDS, ASTM-C-1315 CONFORMING (L&M DRESS & SEAL WB 30) CURING AND SEALING COMPOUND, AS MANUFACTURED BY L&M CONSTRUCTION CHEMICALS, INC., OR APPROVED EQUAL. APPLY SECOND COAT IMMEDIATELY AFTER THE FIRST COAT HAS DRIED TO TOUCH, AT RIGHT ANGLES. ALLOW SEALER TO DRY BEFORE OPENING TO TRAFFIC.

11. AFTER CONCRETE HAS FULLY CURED AND PRIOR TO OPENING TO TRAFFIC, FILL THE JOINTS WITH A SEMI-RIGID TWO COMPONENT, POLYUREA CONTROL JOINT FILLER, (JOINT TITE 750), AS MANUFACTURED BY L&M CONSTRUCTION CHEMICALS, INC., OR APPROVED EQUAL.

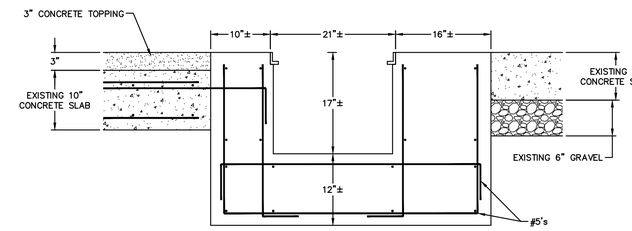
12. CONTRACTOR TO BEGIN WORK ASSOCIATED WITH TRANSFER STATION NO. 2 REPAIRS/IMPROVEMENTS ONCE THE WORK ASSOCIATED WITH THE CITIZEN'S CONVENIENCE CENTER WITH ACCESS ROAD AND ALL UTILITIES AND APPURTENANCES ASSOCIATED WITH THIS WORK AREA, RECYCLING AND MSW DROP-OFF AREA AND THE C&D DROP-OFF AREA ARE COMPLETE AND IN OPERATION

13. CONTRACTOR TO COMPLETE ALL WORK ASSOCIATED WITH THE REPAIRS/IMPROVEMENTS TO TRANSFER STATION NO. 2 WITHIN 30 CALENDAR DAYS ONCE WORK COMMENCES; HOWEVER, ALL WORK SHOULD BE COMPLETED WITHIN 365 CALENDAR DAYS AFTER THE NOTICE TO PROCEED.



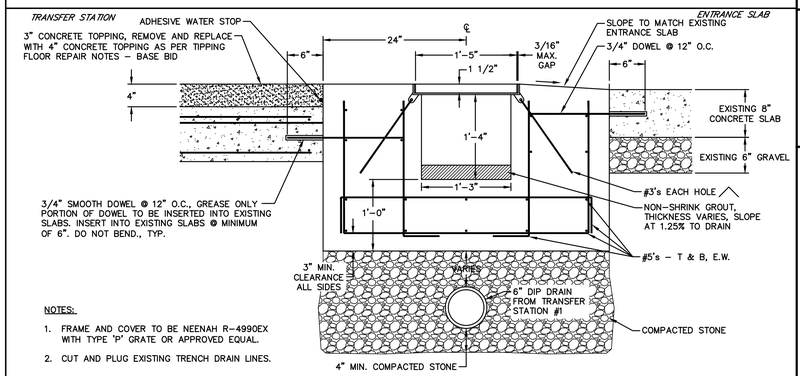
TRANSFER STATION MODIFICATION PLAN 2

NOT TO SCALE



EXISTING TRENCH DRAIN SECTION A-A

NOT TO SCALE

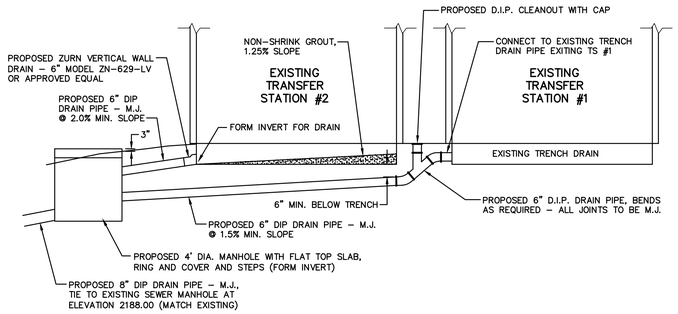


NOTES:

1. FRAME AND COVER TO BE NEENAH R-4990EX WITH TYPE 'P' GRATE OR APPROVED EQUAL.
2. CUT AND PLUG EXISTING TRENCH DRAIN LINES.

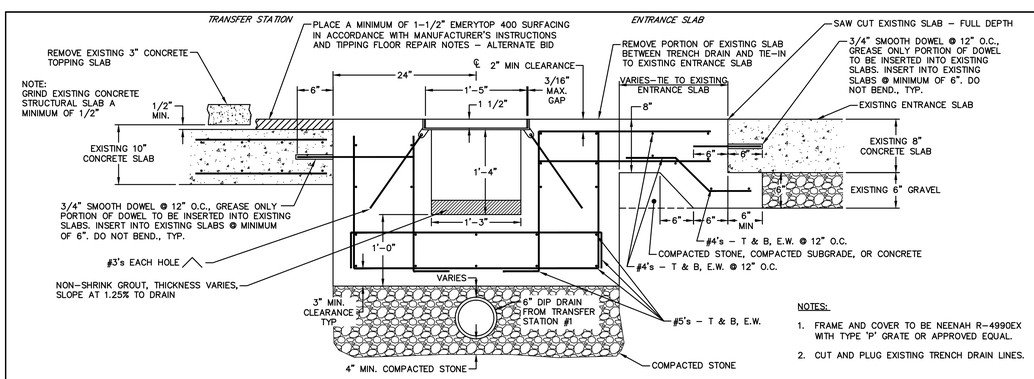
PROPOSED TRENCH DRAIN SECTION B-B - BASE BID 2

NOT TO SCALE



SECTION C-C

NOT TO SCALE

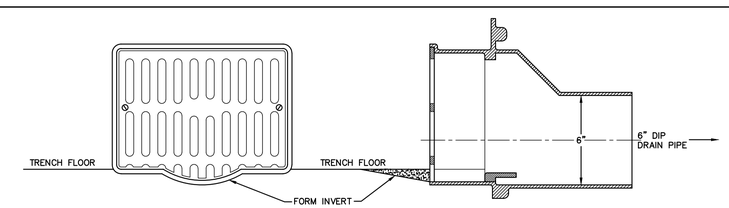


NOTES:

1. FRAME AND COVER TO BE NEENAH R-4990EX WITH TYPE 'P' GRATE OR APPROVED EQUAL.
2. CUT AND PLUG EXISTING TRENCH DRAIN LINES.

PROPOSED TRENCH DRAIN SECTION B-B - ALTERNATE BID ITEM 2

NOT TO SCALE



NOTES:
VERTICAL WELL DRAIN TO BE: 6" ZURN ZN-629-LV OR APPROVED EQUAL.

VERTICAL WALL DRAIN DETAIL

NOT TO SCALE

BID DOCUMENTS

NO.	DATE	BY	REVISION DESCRIPTION
2	9/29/10	KS	REVISED PER ADDENDUM 2

McGill ASSOCIATES
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024993 MARK D. CRAIG

STONEY MOUNTAIN ROAD LANDFILL
CAPITAL IMPROVEMENTS PROJECT
CONSTRUCTION PLANS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 09.00728
DATE: AUGUST 2010
DESIGNED BY: DAP, KS
CADD BY: DAP, KS
DESIGN REVIEW: JRB
CONST. REVIEW: MKW
FILE NAME: 09.00728 C-508 Miscellaneous Details.dwg

MISCELLANEOUS DETAILS

SHEET
C-508

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