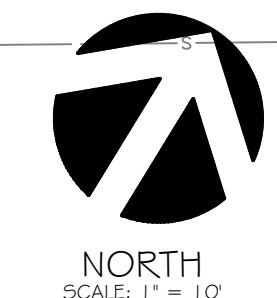


ABBOTT DRIVE



PLOTTING NOTE: PLANS PLOTTED TO 11x17 SHEET SIZE ARE 1/2" SCALE- 1"=20'.



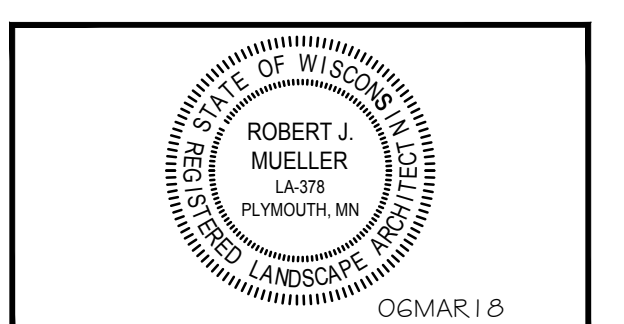
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**Kwik  
STAR**

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LACROSSE, WI 54602-2107  
PH. (608) 781-8988  
FAX (608) 781-8960

**INSITES**  
SITE PLANNING LANDSCAPE ARCHITECTURE  
3030 Harbor Lane North, STE 131  
Plymouth Minnesota 55447  
763.383.8400  
fax 763.383.8410

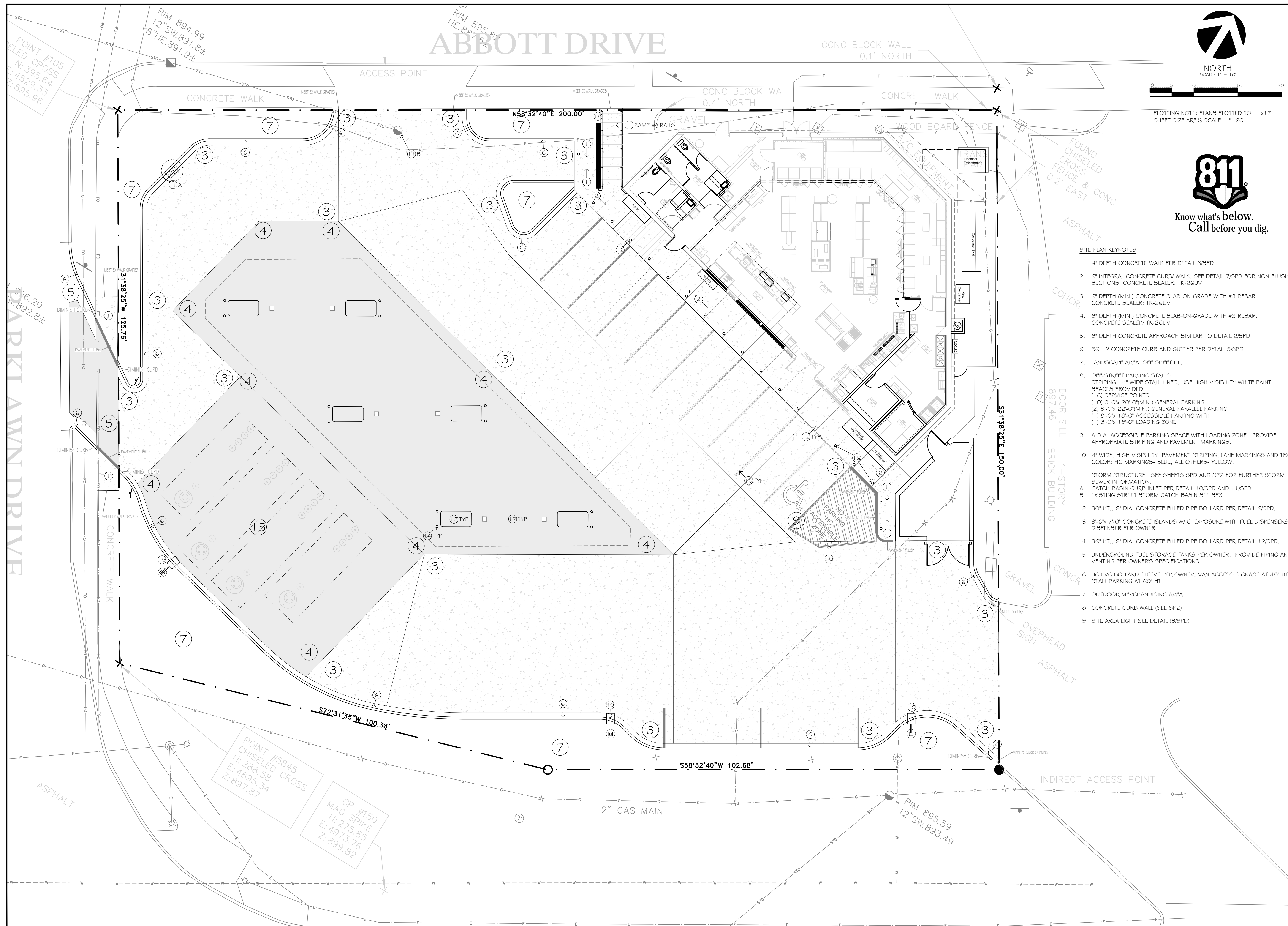


**SITE DIMENSION PLAN**  
**CONVENIENCE STORE 968**  
**2302 E MORELAND BLVD**  
**WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: \_\_\_\_\_  
SCALE: GRAPHIC  
PROJ. NO.: 17968  
DATE: 09JAN2018  
SHEET: \_\_\_\_\_

**SP1**



NORTH  
SCALE: 1" = 10'  
PLOTING NOTE: PLANS PLOTTED TO 11x17  
SHEET SIZE ARE 1/2 SCALE - 1"=20'.



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**SITE PLAN KEYNOTES**

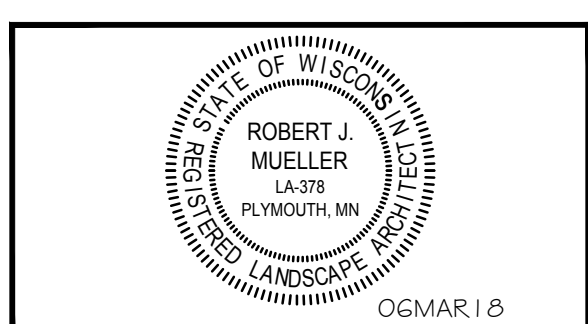
1. 4" DEPTH CONCRETE WALK PER DETAIL 3/5PD
2. 6" INTEGRAL CONCRETE CURB/WALK. SEE DETAIL 7/5PD FOR NON-FLUSH SECTIONS. CONCRETE SEALER: TK-26UV
3. 6" DEPTH (MIN.) CONCRETE SLAB-ON-GRADE WITH #3 REBAR. CONCRETE SEALER: TK-26UV
4. 8" DEPTH (MIN.) CONCRETE SLAB-ON-GRADE WITH #3 REBAR. CONCRETE SEALER: TK-26UV
5. 8" DEPTH CONCRETE APPROACH SIMILAR TO DETAIL 2/5PD
6. B6-12 CONCRETE CURB AND GUTTER PER DETAIL 5/5PD.
7. LANDSCAPE AREA. SEE SHEET L1.
8. OFF-STREET PARKING STALLS STRIPING - 4' WIDE STALL LINES, USE HIGH VISIBILITY WHITE PAINT. SPACES PROVIDED:  
(16) SERVICE POINTS  
(10) 9'-0" x 20'-0" (MIN.) GENERAL PARKING  
(2) 9'-0" x 22'-0" (MIN.) GENERAL PARALLEL PARKING  
(1) 8'-0" x 18'-0" ACCESSIBLE PARKING WITH  
(1) 8'-0" x 18'-0" LOADING ZONE
9. A.D.A. ACCESSIBLE PARKING SPACE WITH LOADING ZONE. PROVIDE APPROPRIATE STRIPING AND PAVEMENT MARKINGS.
10. 4' WIDE, HIGH VISIBILITY, PAVEMENT STRIPING, LANE MARKINGS AND TEXT. COLOR: HC MARKINGS- BLUE, ALL OTHERS- YELLOW.
11. STORM STRUCTURE. SEE SHEETS SP1 AND SP2 FOR FURTHER STORM SEWER INFORMATION.  
A. CATCH BASIN CURB INLET PER DETAIL 10/5PD AND 11/5PD  
B. EXISTING STREET STORM CATCH BASIN SEE SP3
12. 30" HT., 6" DIA. CONCRETE FILLED PIPE BOLLARD PER DETAIL 6/5PD.
13. 3'-6" x 7'-0" CONCRETE ISLANDS W/ 6" EXPOSURE WITH FUEL DISPENSERS. DISPENSER PER OWNER.
14. 36" HT., 6" DIA. CONCRETE FILLED PIPE BOLLARD PER DETAIL 12/5PD.
15. UNDERGROUND FUEL STORAGE TANKS PER OWNER. PROVIDE PIPING AND VENTING PER OWNER'S SPECIFICATIONS.
16. HC PVC BOLLARD SLEEVE PER OWNER. VAN ACCESS SIGNAGE AT 48" HT. STALL PARKING AT 60" HT.
17. OUTDOOR MERCHANDISING AREA
18. CONCRETE CURB WALL (SEE SP2)
19. SITE AREA LIGHT SEE DETAIL (9/5PD)

**Kwik TRIP**

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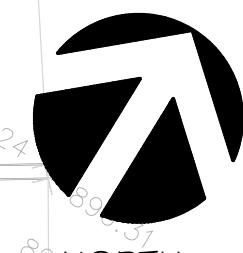
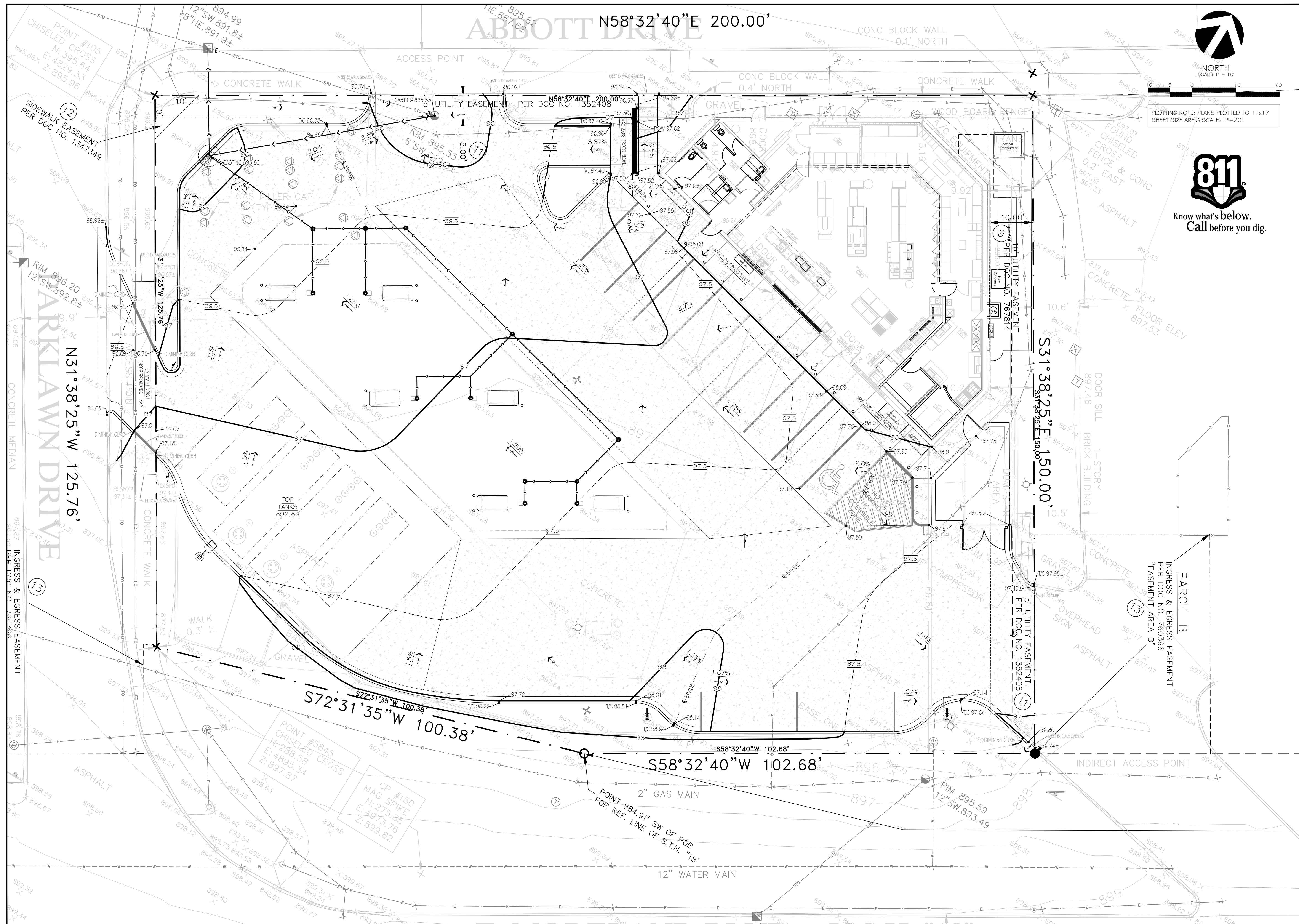


**SITE KEYNOTE PLAN**  
**CONVENIENCE STORE 968**  
2302 E MORELAND BLVD  
WAUKESHA, WISCONSIN

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: \_\_\_\_\_  
SCALE: GRAPHIC  
PROJ. NO.: 17968  
DATE: 09JAN2018  
SHEET: **SP1.1**

REVISED 17-052 RJC/N



PLOTTING NOTE: PLANS PLOTTED TO 11x17  
SHEET SIZE ARE 1/2 SCALE - 1"=20'.



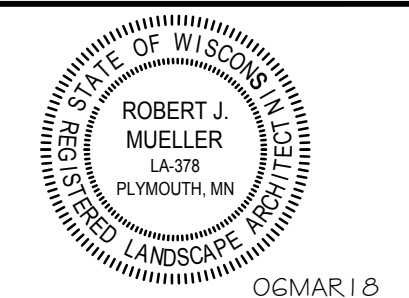
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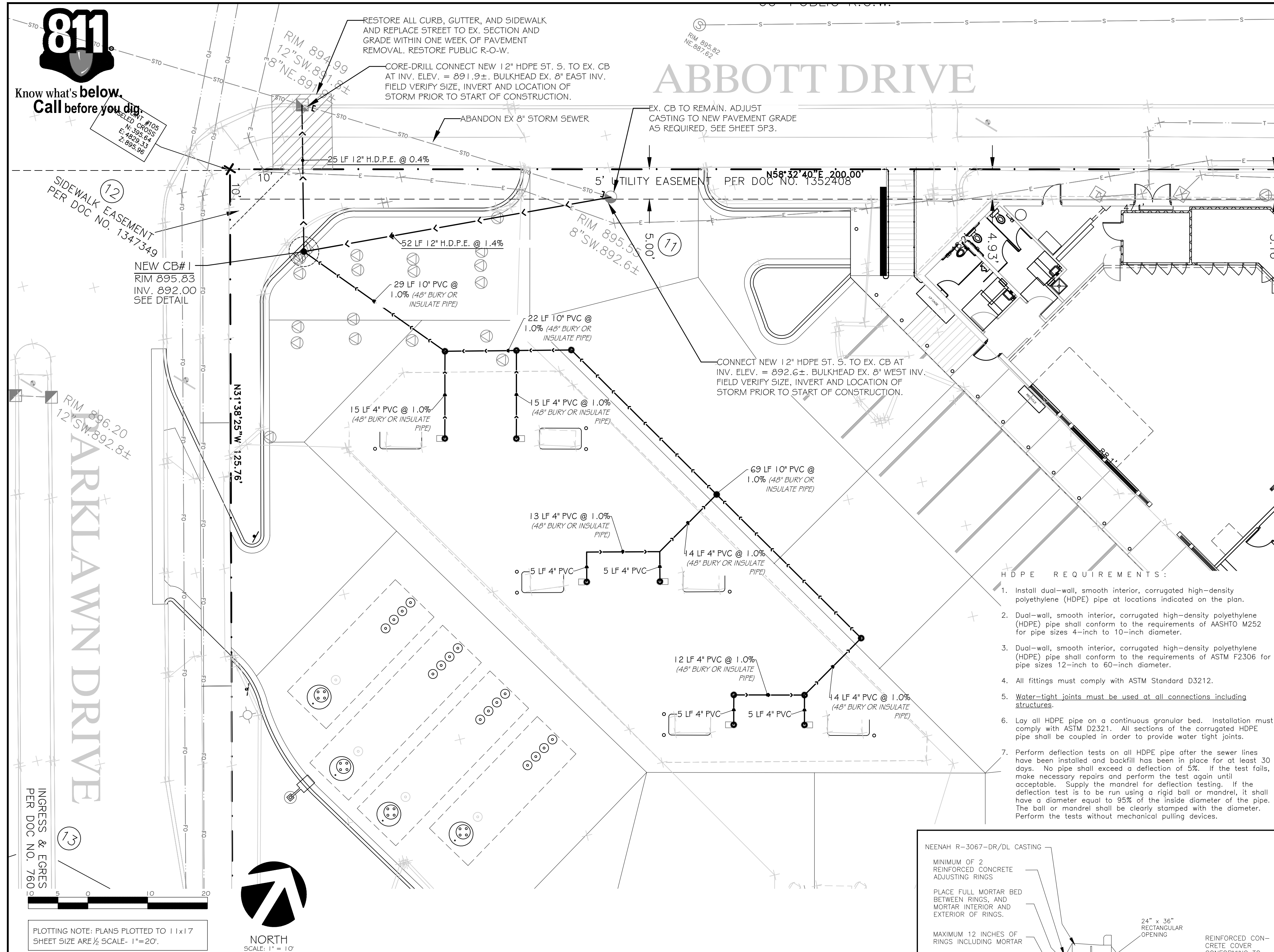


**GRADE PLAN**  
**896 STORECENCE N**  
**2302 E MORELAND BLVD**  
**WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR16	CITY COMMENTS

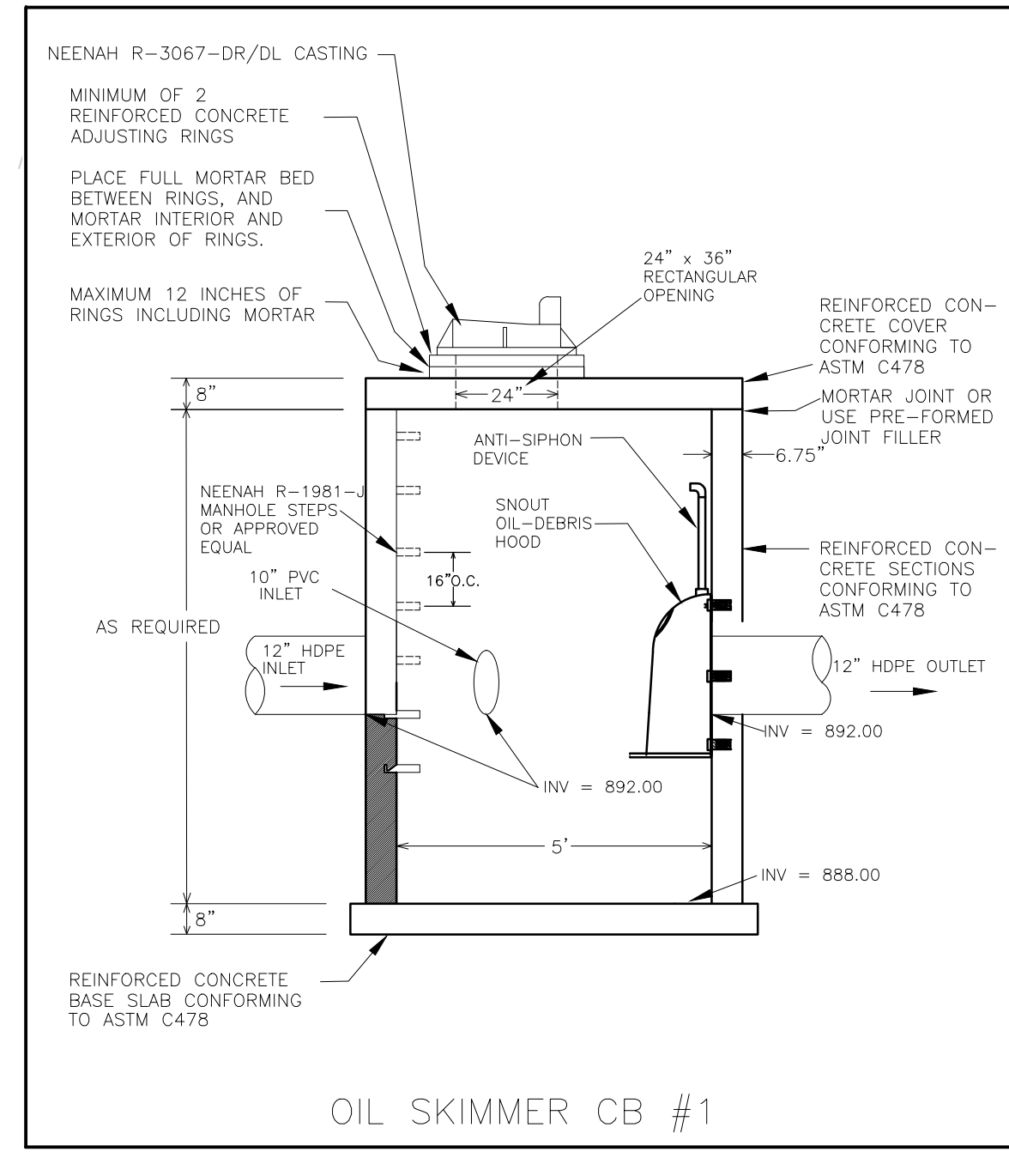
DRAWN BY: GRAPHIC  
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PROJ. NO.: 17968  
DATE: 09JAN2016  
SHEET: **SP2**

REVISED 17-09-22 PM.C.N.

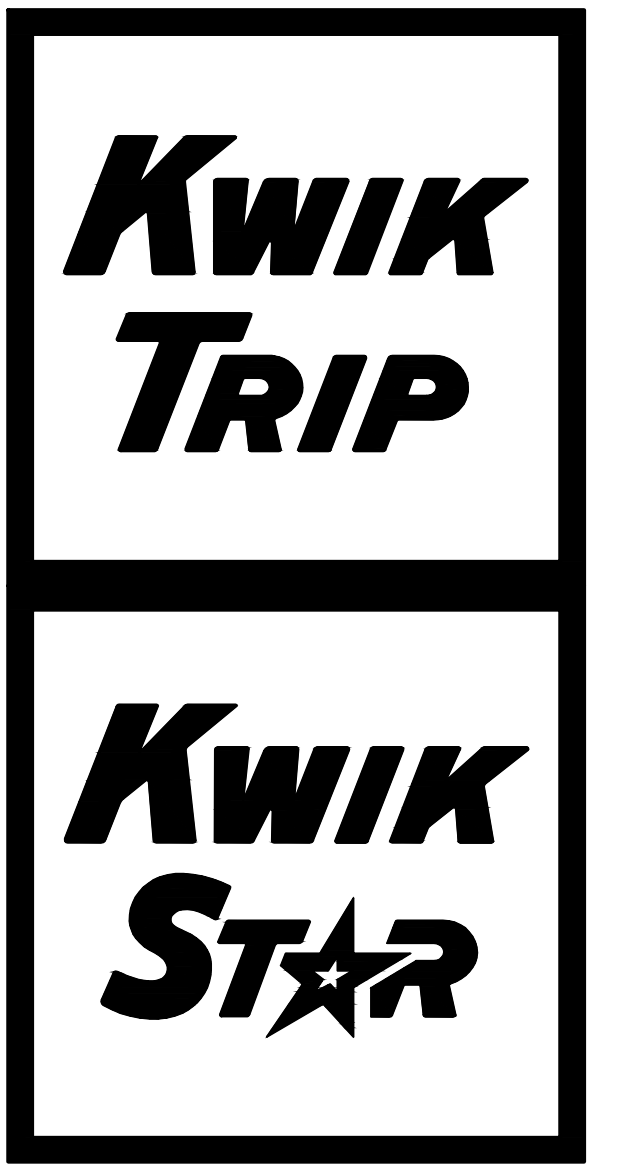


- GENERAL:**
1. Existing boundary, location, topographic, and utility information shown on this plan is from a field survey by R.A. Smith National, Inc. dated 08/10/17. The Engineer is not responsible for inaccuracies related to the survey information.
  2. Perform all construction work in accordance with State and Local requirements.
  3. Comply with all applicable local, state, and federal safety regulations. Comply with the work safety practices specified by the Occupational Safety and Health Administration (OSHA). OSHA prohibits entry into "confined spaces," such as manholes and inlets (see 29 CFR Section 1910.146), without undertaking certain specific practices and procedures. Perform excavations in accordance with the requirements of O.S.H.A. 29 CFR, Part 1926, Subpart P, Excavations. Sloping or benching for excavations greater than 20 feet deep must be approved by a registered professional engineer (www.osha.gov).
  4. Safety is solely the responsibility of the Contractor, who is also solely responsible for the construction means, methods, techniques, sequences or procedures, and for safety precautions and programs in connection with the Work.
  5. The Engineer shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. The Engineer's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures.
  6. Examine all local conditions at the site, and assume responsibility as to the grades, contours, and the character of the earth, existing conditions, and other items that may be encountered during excavation work above or below the existing grades. Review the drawings, specifications, and geotechnical report covering this work and become familiar with the anticipated site conditions.
  7. A licensed surveyor shall perform construction staking. The Contractor shall provide and be responsible for the staking. Verify all plan and dimensions prior to beginning construction. Contact Digger's Hotline at (414) 259-1181 in the Milwaukee Metro Area, or 1-800-242-8511 elsewhere in Wisconsin for exact locations of existing utilities at least 72 hours (not including weekends and holidays) before beginning any construction. Obtain ticket number and meet with representatives of the various utilities at the site. Provide the Owner with the ticket number information. Digger's Hotline is a free service that locates municipal and utility company lines, but does not locate private utility lines. Use an independent locator service or other means in order to obtain locations of private utility lines including, but not limited to, underground electric cables, telephone, TV, and lawn sprinkler lines.
  8. Provide temporary fences, barricades, coverings, and other protections in order to preserve existing items to remain, and to prevent injury or damage to person or property.
  9. Provide all traffic control required in order to construct the proposed improvements. Traffic control design and associated government approvals are the responsibility of the Contractor. Comply with local authorities, the latest version of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and the Wisconsin Manual on Uniform Traffic Control Devices Supplement to the MUTCD.
  10. Connect to existing storm sewer MH's by either sawcutting or corodrilling. Use saws or drills that provide water to the blade. Meet all City standards and specifications for the connection. Reconstruct inverts after installation. Use water stop gaskets in order to provide watertight seals when penetrating a structure wall with a pipe. Take measurements before beginning construction to ensure that service connections do not cut into maintenance access structure joints or pipe barrel joints.
  11. All existing existing sewer and watermain pipes that are to be abandoned shall either be removed, or completely filled with sand or lean mix grout.
  12. The Contractor is solely responsible for all utility locations. Contact utility companies for locations of all public and private utilities within the project area prior to beginning construction. Contact Digger's Hotline at (414) 259-1181 in the Milwaukee Metro Area, or 1-800-242-8511 elsewhere in Wisconsin for exact locations of existing utilities at least 72 hours (not including weekends and holidays) before beginning any construction. Obtain ticket number and meet with representatives of the various utilities at the site. Provide the Owner with the ticket number information. Digger's Hotline is a free service that locates municipal and utility company lines, but does not locate private utility lines. Use an independent locator service or other means in order to obtain locations of private utility lines including, but not limited to, underground electric cables, telephone, TV, and lawn sprinkler lines.
  13. Pothole to verify the positions of existing underground facilities at a sufficient number of locations in order to assure that no conflict with the proposed work exists and that sufficient clearance is available.
  14. Where existing gas, electric, cable, or telephone utilities conflict with the Work, coordinate the abandonment, relocation, offset, or support of the existing utilities with the appropriate local utility companies. Coordinate new gas meter and gas line installation, electric meter and electric service installation, cable service, and telephone service installation with the local utility companies.
  15. Arrange for and secure suitable disposal areas off-site. Dispose of all excess soil, waste material, debris, and all materials not designated for salvage. Waste material and debris includes trees, stumps, pipe, concrete, asphaltic concrete, cans, or other waste material from the construction operations. Obtain the rights to any waste area for disposal of unsuitable or surplus material either shown or not shown on the plans. All work in disposing of such material shall be considered incidental to the work. All disposal must conform to applicable solid waste disposal permit regulations. Obtain all necessary permits at no cost to the OWNER.
  16. Straight line saw-cut existing bituminous or concrete surfacing at the perimeter of pavement removal areas. Use saws that provide water to the blade. Do not allow the slurry produced by this process to be tracked outside of the immediate work area or discharged into the sewer system. Tack and match all connections to existing bituminous pavement.
  17. Relocate overhead power, telephone, and cable lines as required. Seal and report any existing unused on-site wells and septic systems.
  18. All materials required for this work shall be new material conforming to the requirements for class, kind, grade, size, quality, and other details specified herein or as shown on the Plans. Do not use recycled or salvaged aggregate asphaltic pavement, crushed concrete, or scrap shingles. Unless otherwise indicated, the Contractor shall furnish all required materials.
  19. Reconstruct driveways and patch street to match existing pavement section and grade. Sod right-of-way. The work area shown is general and may need to be adjusted in the field.
  20. Restore the public right-of-way at temporary construction entrance locations. Replace any concrete curb and gutter, bituminous pavement, sidewalk, or vegetative cover damaged by the construction activity. Restore damaged turf with sod within the public right-of-way. The work area shown is general and may need to be adjusted in the field.
  21. Provide positive drainage away from buildings at all times. Provide and maintain temporary drainage throughout construction until the permanent drainage system and structures are in place and operational. Install temporary ditches, piping, pumps, or other means as necessary in order to insure proper drainage at all times. Provide low points at building pads or roadways with positive outfalls.
  22. Protect sub grades from damage by surface water runoff.
  23. Full design strength is not available in bituminous pavement areas until the final lift of asphalt is compacted into place. Protect pavement areas from overloading by delivery trucks, construction equipment, and other vehicles.
  24. When sawing or drilling concrete or masonry, use saws that provide water to the blade. Do not allow the slurry produced by this process to be tracked outside of the immediate work area or discharged into the sewer system.
  25. Adjust all curb stops, valve boxes, maintenance hole castings, catchbasin castings, cleanout covers, and similar items to finished grade.
  26. Install all pipe with the ASTM identification numbers on the top for inspection. Commence pipe laying at the lowest point in the proposed sewer line. Lay the pipe with the bell end or receiving groove end of the pipe pointing upgrade. When connecting to an existing pipe, uncover the existing pipe in order to allow any adjustments in the proposed line and grade before laying any pipe. Do not lay pipes in water or when the trench conditions are unsuitable for such work.
  27. Obtain and pay for all permits, tests, inspections, etc. required by agencies that have jurisdiction over the project including the NPDES permit from the State. The Contractor is responsible for all bonds, letters of credit, or cash sureties related to the work. Execute and inspect work in accordance with all local and state codes, rules, ordinances, or regulations pertaining to the particular type of work involved.
  28. Obtain permits from the City for work in the public right-of-way.
  29. Refer to the geotechnical report by the Soils Engineer for dewatering requirements.
  30. The minimum depth of cover for building and canopy roof drain leaders without insulation is 5 feet. Insulate roof drain leaders at locations where the depth of cover is less than 5 feet. Provide a minimum insulation thickness of 2 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam HI-40 plastic foam insulation.
  31. Insulate utility lines at locations indicated on the plans. Provide a minimum insulation thickness of 4 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam Highload 40 Polystyrene Insulation. Individual insulation board dimensions typically measure 4' wide by 8' long by 2" thick.
  32. Construct sanitary sewer, watermain, and storm sewer utilities in accordance with the Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition, or the latest revised edition.
  33. Tracer Wire: Locating requirements - a means to locate buried underground exterior non metallic sewers/mainst must be provided with tracer wire or other methods in order to be located in accord with the provisions of these code sections as per 182.0715(2r) of the statutes.
  34. See architectural for building waterproofing and foundation drainage.
  35. Secure and deliver to the Owner as-built information showing locations, top, and invert elevations of maintenance holes, catchbasins, cleanouts, inlet and outlet pipes, valves, hydrants, and related structures. Location ties shall be to permanent landmarks or buildings.
  36. Place #3 rebar at 3' on center in all 6" thick concrete pavement locations. Place #4 rebar at 3' on center in all 8" thick concrete pavement locations.
  37. Place #4 x 2'-0" tie bar at 3' on center in all concrete curb and gutter.

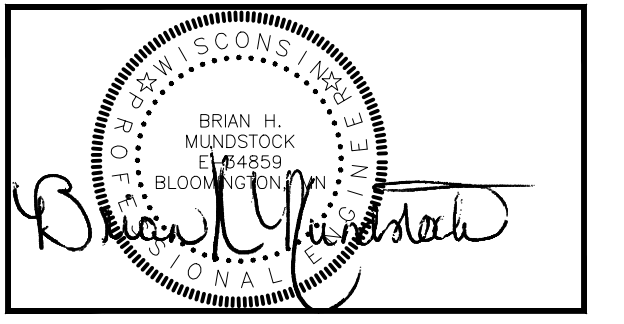
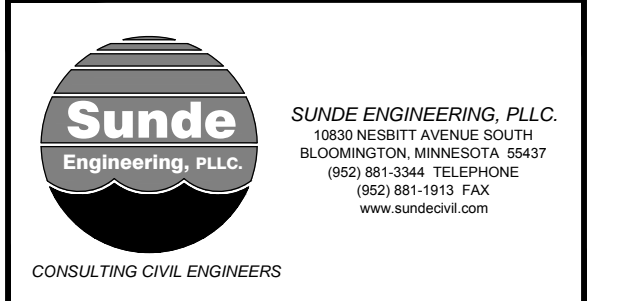
- STORM DRAINAGE:**
1. Unless otherwise indicated, use reinforced, precast, concrete maintenance holes and catchbasins conforming to ASTM C478; furnished with water stop rubber gaskets and precast bases. Joints for all precast maintenance hole sections shall have confined, rubber "O"-ring gaskets in accordance with ASTM C923. The inside barrel diameter shall not be less than 48 inches.
  2. Install catchbasin castings with specified top elevation at the front rim.
  3. All joints and connections to catchbasins or manholes shall be watertight. Joints between concrete structures and piping shall be made with mechanical joints (resilient rubber seal/boot and clamp) in conformance with ASTM C923, ASTM C654, or as otherwise permitted by the local authority. Cement mortar joints are not allowed unless otherwise permitted by the administrative authority.
  4. **PVC Pipe (Outside of the Building):** Use solid-core, SDR-35, ASTM D3034 Polyvinyl Chloride (PVC) Pipe for designated PVC storm sewer services 4 to 15-inches in diameter outside of the building. Use solid-core, SDR-35, ASTM F679 Polyvinyl Chloride (PVC) pipe for designated PVC storm sewer services 18 to 27-inches in diameter outside of the building. Joints for all storm sewer shall have push-on joints with elastomeric gaskets. Use of solvent cement joints is allowed for building services. Solvent cement joints in PVC pipe must include use of a primer which is of contrasting color to the pipe and cement in accordance with Uniform Plumbing Code (UPC), part 605.13.2. Pipe with solvent cement joints shall be joined with PVC cement conforming to ASTM D2564. Lay all PVC pipe on a continuous granular bed. Installation must comply with ASTM D2321.
  5. **Cleanouts:** Install cleanouts on all roof drains in accordance with S.P.S. 382.35 (3)(C)(1.). The distance between cleanouts in horizontal piping shall not exceed 100 feet for pipes 10-inches and under in size. Cleanouts shall be of the same nominal size as the pipes they serve. Install a meter box frame and solid lid (Neenah R-1914-A, or approved equal) over all cleanouts.
  6. **RCP:** Reinforced concrete pipe (RCP) and fittings shall conform to ASTM C76, Design C, with circular reinforcing for the class of pipe specified. Use Class IV RCP for pipes 21" and larger. Use Class V RCP for pipes 18" and smaller. Joints shall be Bureau of Reclamation type R-4, with confined rubber "O"-ring gaskets in accordance with ASTM C361.



7. **Testing:** Test all portions of storm sewer that are within 10 feet of buildings, within 10 feet of buried water lines, within 50 feet of water wells, or that pass through soil or water identified as being contaminated in accordance with UPC part 1109.D. Test all flexible storm sewer lines for deflection after the sewer line has been installed and backfill has been in place for at least 30 days. No pipe shall exceed a deflection of 5%. If the test fails, make necessary repairs and retest.
8. **Drainage:** Perforated under-drains shall be slotted single wall corrugated HDPE. Install drain tile with high permeability circular knit polymer filament filter sock per ASTM D6707-01.
9. Use Neenah R-3067-DR/DR casting with curb box, or approved equal, on CB #1. Casting shall include the "NO DUMPING, DRAINS TO RIVER," environmental notice.
10. **Tracer Wire:** Locating requirements - a means to locate buried underground exterior non metallic sewers/mainst must be provided with tracer wire or other methods in order to be located in accord with the provisions of these code sections as per 182.0715(2r) of the statutes. Install detectable underground marking tape directly above all pvc, polyethylene, and other nonconductive underground utilities at a depth of 457 mm (18 inches) below finished grade, unless otherwise indicated. Bring the tape to the surface at various locations in order to provide connection points for locating underground utilities. Install green Rhino Tracer Flex Test Stations, or approved equal, with black caps at each surface location.
11. The minimum depth of cover for building and canopy roof drain leaders without insulation is 5 feet. Insulate roof drain leaders at locations where the depth of cover is less than 5 feet. Provide a minimum insulation thickness of 2 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam HI-40 plastic foam insulation.
12. Install all pipe with the ASTM identification numbers on the top for inspection. Commence pipe laying at the lowest point in the proposed sewer line. Lay the pipe with the bell end or receiving groove end of the pipe pointing upgrade. When connecting to an existing pipe, uncover the existing pipe in order to allow any adjustments in the proposed line and grade before laying any pipe. Do not lay pipes in water or when the trench conditions are unsuitable for such work.
13. Clean sediment and debris from sewers, sumps and stormwater basins prior to final owner acceptance.
14. Televiser all existing lines prior to connection.



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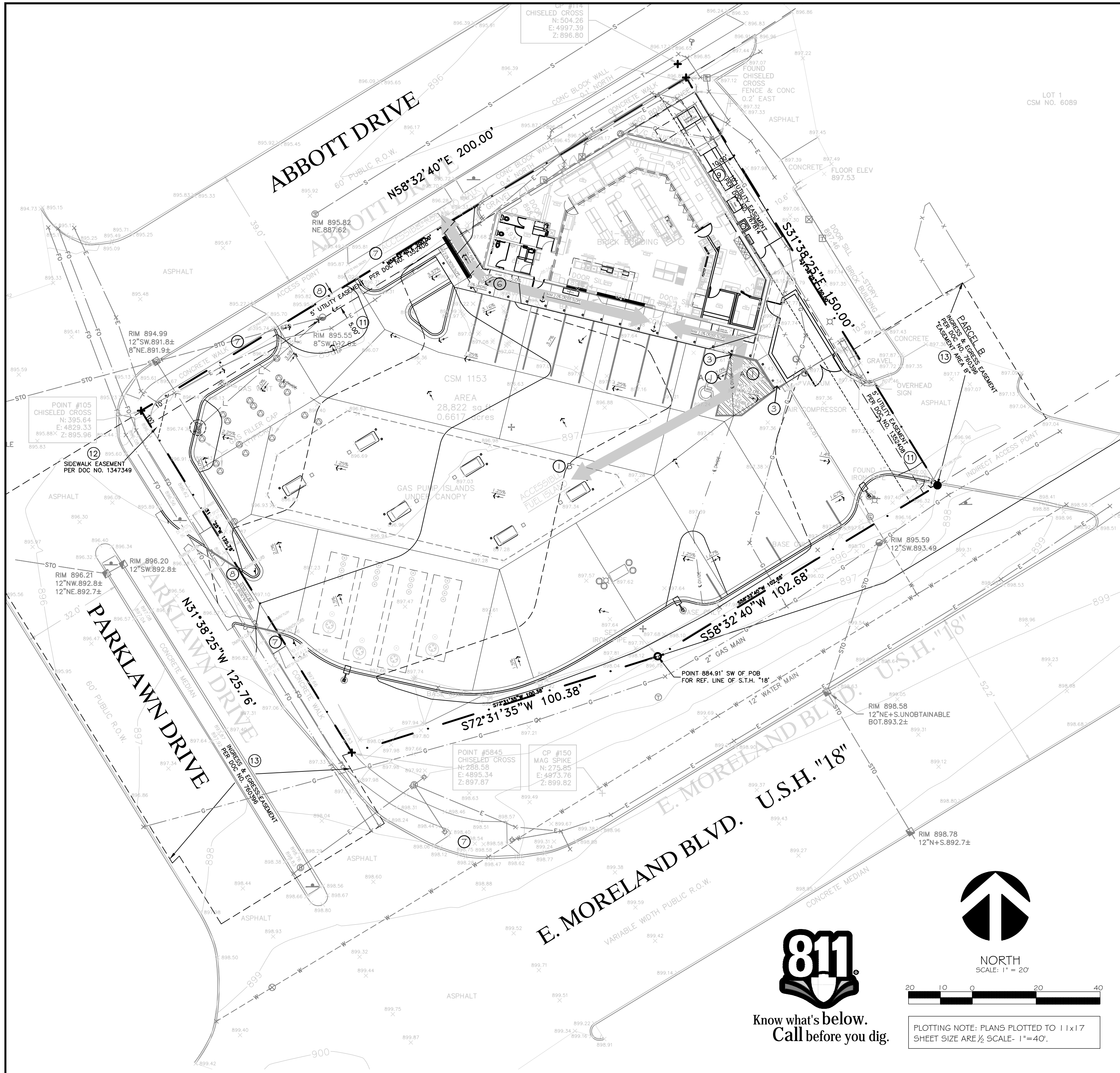
**STORM SEWER PLAN**

**CONVENIENCE STORE 968**

**2302 E MORELAND BLVD WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: GRAPHIC  
SCALE: 1"=20'  
PROJ. NO.: 17968  
DATE: 09JAN2018  
SHEET: SP3



**PLAN KEYNOTES**

- 1. ACCESSIBLE STALLS
  - A. STRIPING - 4" WIDE STALL LINES, USE HIGH VISIBILITY BLUE PAINT (UNLESS ALTERNATE COLOR SPECIFIED BY LOCAL OR STATE CODES). SPACES PROVIDED
  - (1) 8'-0" x 20'-0" ACCESSIBLE PARKING WITH
  - (1) 8'-0" x 18'-0" LOADING ZONE
  - B. ACCESSIBLE FUELING POINT AND DISPENSER AND VALET. VALET AND KEY PAD ON PUMP SHALL CONFORM TO ADA REACH DIMENSIONS AS SHOWN IN DETAIL. SEE NOTES FOR CONVENIENCE STORE ACCESSIBILITY.
- X TRUNCATED-DOME INSERT. COLOR: BURGUNDY. DIMENSIONS OF INSERT AS DETERMINED BY PATH WIDTH TO ENSURE COMPLETE DETECTION ZONE IN LINE-OF-TRAVEL.
- 3. PAVEMENTS FLUSH FOR ACCESSIBILITY.
- X PILING TABLE W/ ACCESSIBLE PLACEMENT PROVIDE OWNER. PROVIDE TRASH CONTAINER.

- X ACCESSIBLE VACUUM + AIR INSTALLED WITH APPROPRIATE HEIGHTS. PARKING AREA SHALL MEET A.D.A. DIMENSIONS FOR ACCESS AND SURFACE FOR WHEEL CHAIR ACCESS SHALL NOT EXCEED 1:48 SLOPE IN ALL DIRECTIONS. SEE NOTES FOR CONVENIENCE STORE ACCESSIBILITY.
- 6. ACCESSIBLE ROUTE TO STORE
- 7. CITY SIDEWALK
- 8. ACCESS THRU APPROACH MAX. 2% CROSS SLOPE (1:48)
- X CURB RAMP - RAMP SLOPE MAX 1:12 SIDE FLARE SLOPE MAX 1:10

**NOTES FOR CONVENIENCE STORE ACCESSIBILITY**

AT LEAST 1 MFD (MULTI PRODUCT DISPENSER) COVERING ALL GRADES OF FUEL MUST BE ACCESSIBLE IN A 30'x48" CLEAR LEVEL FLOOR AREA (CLF).

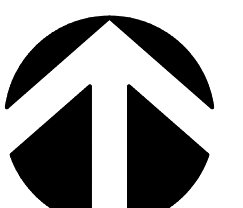
ALL PUMP CONTROLS SHALL BE < 48" (20" IO STANDARD). WINDOW WASHER, PAPER TOWEL DISPENSER, LITERATURE, FIRE EXTINGUISHER, EMERGENCY FUEL STOPS, ETC. BE ACCESSIBLE 30'x48" CLF SPACE AND WITHIN A FORWARD OR SIDE APPROACH REACH RANGE.

PROVIDE IS (INDUSTRY STANDARD ARCHITECTURE) AT EACH ACCESSIBLE FUEL POSITION ON FACE OF PUMP.

PROVIDE AT EACH ACCESSIBLE FUELING POSITION VISIBLE TO APPROACHING VEHICLES.

PROVIDE A SIGN AT EACH ACCESSIBLE FUELING POSITION WITH STORE TELEPHONE NUMBER, ADVISING AVAILABLE FUELING ASSISTANCE.

ANY PAY FUNCTION- I.e. AIR/VACUUM etc. ARE REQUIRED TO HAVE AN ACCESSIBLE ROUTE TO STORE ENTRANCE. CONTROLS SHALL BE ACCESSIBLE 30'x48" CLF SPACE AND WITHIN A FORWARD OR SIDE APPROACH REACH RANGE.



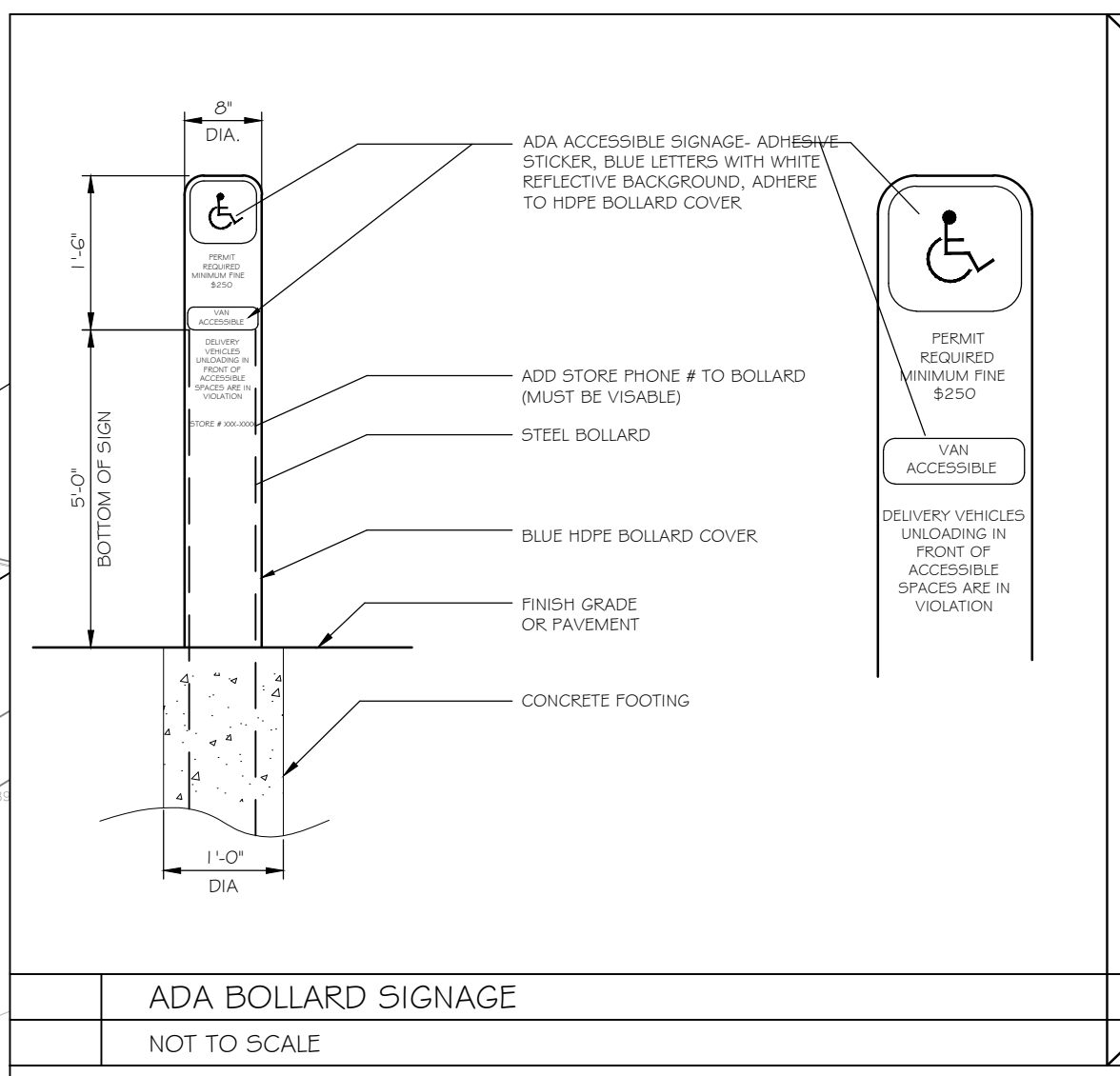
PLOTTING NOTE: PLANS PLOTTED TO 11x17 SHEET SIZE ARE 1/2" SCALE. 1"=40'.

**NOTES:**

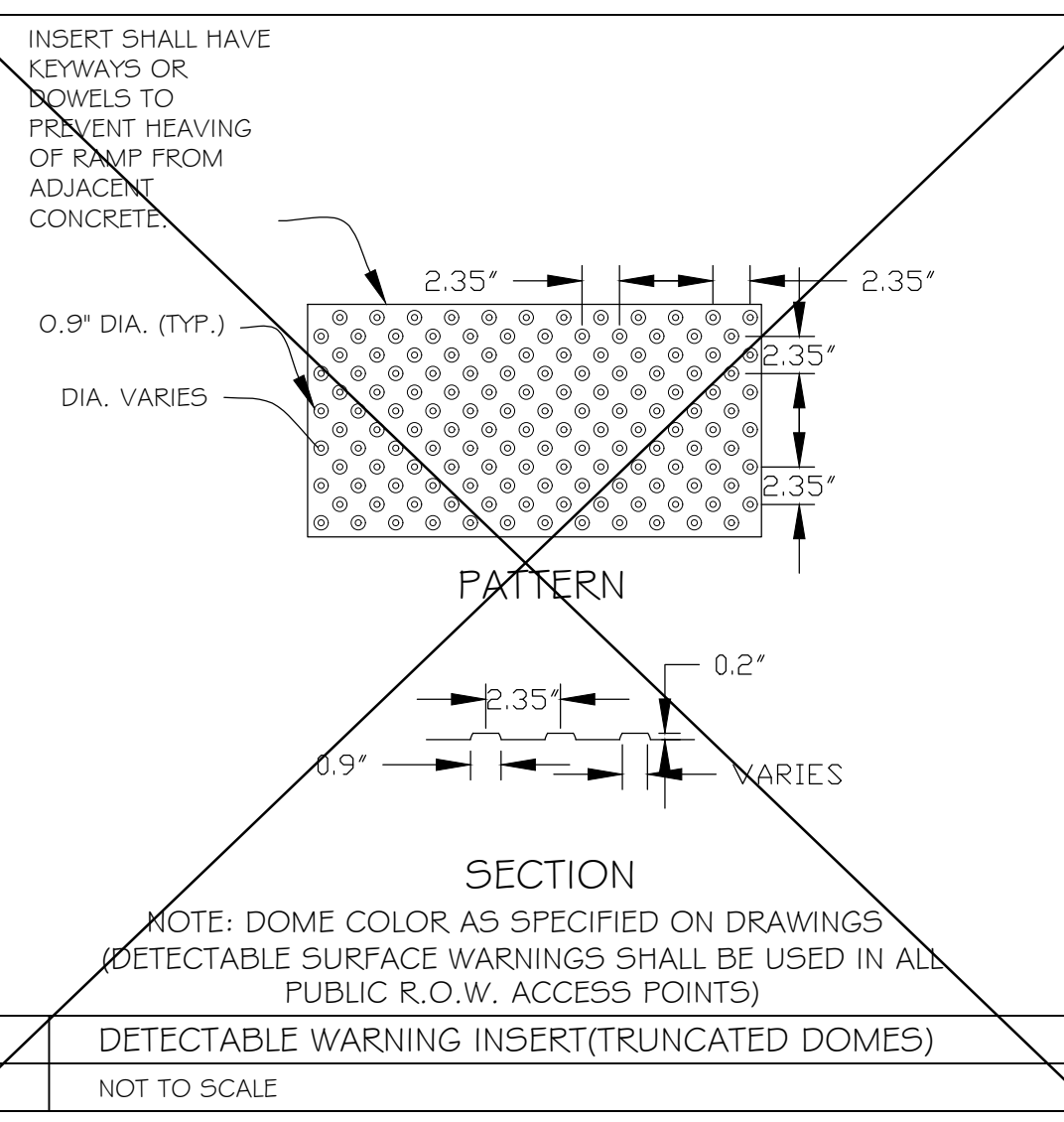
- REFER TO THE DOCUMENT FROM THE DEPARTMENT OF JUSTICE ON '2010 ADA STANDARDS FOR ACCESSIBLE DESIGN'. CONTRACTOR SHALL REFERENCE CURRENT A.D.A. GUIDELINES AND LOCAL REGULATIONS FOR SITE ACCESSIBILITY. IN ALL CASES THE MINIMUM REQUIREMENTS SHALL BE PROVIDED ON SITE TO ENSURE COMPLIANCE TO ALL REGULATIONS.
- KWIK TRIP STANDARD ENTRANCE HAS AUTOMATIC DOOR OPENER SYSTEM DESIGNED TO COMPLY WITH ALL ACCESS CODES AND LAWS. ENTRANCE DOORS FOR ACCESSIBLE ROUTES WILL HAVE A MINIMUM CLEAR OPENING OF 32"
- STORE FRONTS WILL PROVIDE FLUSH PAVEMENTS ALONG ACCESSIBLE ROUTES WITH PROTECTIVE SECURITY BOLLARDS INDICATED AND SPACED BETWEEN PARKING SURFACES AND BUILDING WALK PER PLAN.
- NO OBJECTS OR DISPLAYS SHOULD PROTRUDE INTO THE MINIMUM CLEAR SPACE OF THE ACCESSIBLE ROUTES TO THE STORE ENTRANCE. THIS WILL INCLUDE SEASONAL DISPLAY VENDING AREAS AS WELL AS OTHER OUTDOOR

**STORAGE UNITS FOR PROPANE AND ICE, ETC.**

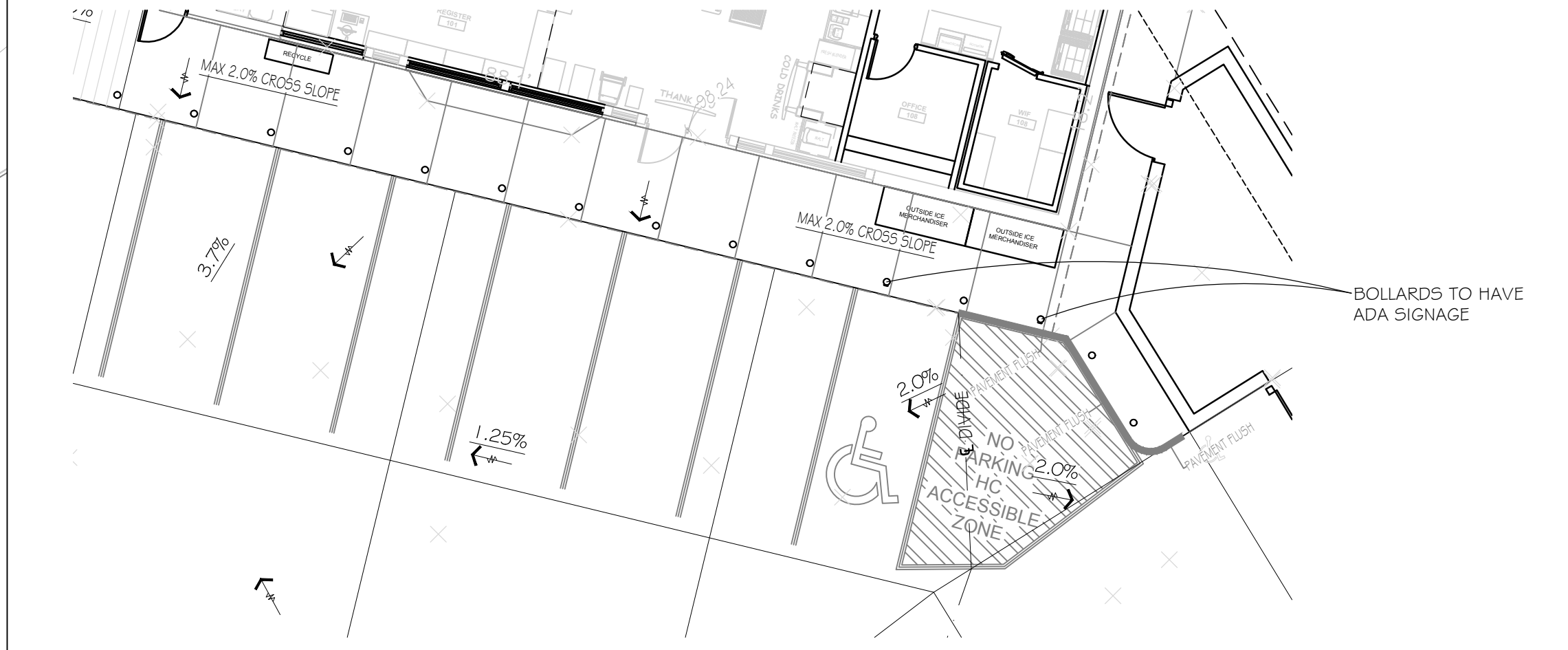
- PER A.D.A. GUIDELINES- CLEAR WIDTH OF ACCESSIBLE ROUTES SHALL BE 36" AND PERMITTED TO BE REDUCED TO 32" FOR A LENGTH OF 24'.
- ACCESS ISLES SERVING WHEEL CHAIR LIFTS OR CHAIR ACCESS FROM VEHICLES ARE REQUIRED TO BE NEARLY LEVEL IN ALL DIRECTIONS TO PROVIDE SAFE TRANSFER OF WHEELCHAIRS TO AND FROM VEHICLES. THE EXCEPTION WOULD BE FOR DRAINAGE. MAXIMUM SLOPE FOR THE ACCESS ISLE IS 1:48. NO CURB RAMPS SHALL BE A PART OF THE ACCESS ISLE.
- IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH THE DESIGNATION OF 1 "VAN ACCESSIBLE" IN EVERY 8 ACCESSIBLE SPACES ON SITE.



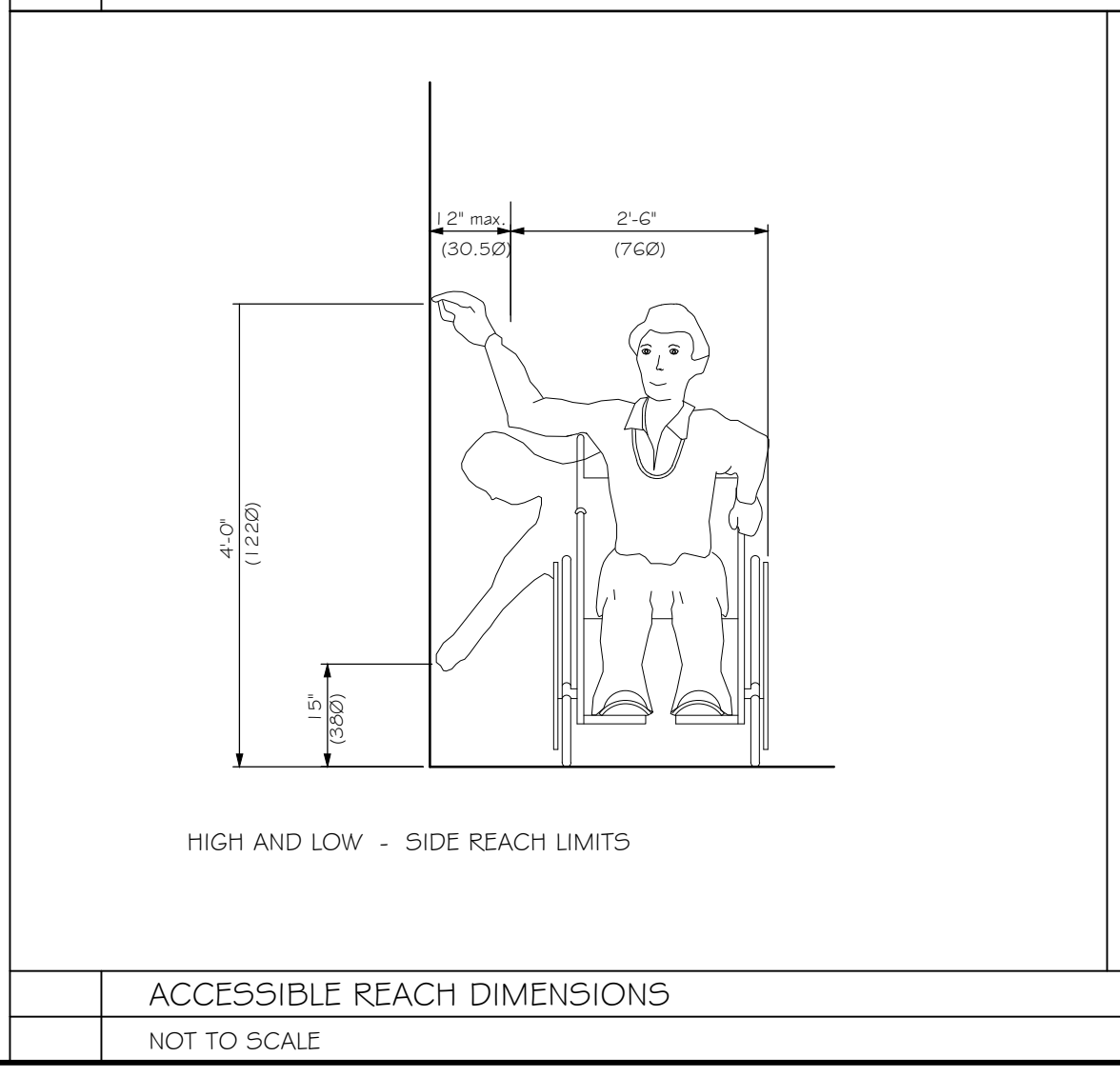
ADA BOLLARD SIGNAGE  
NOT TO SCALE



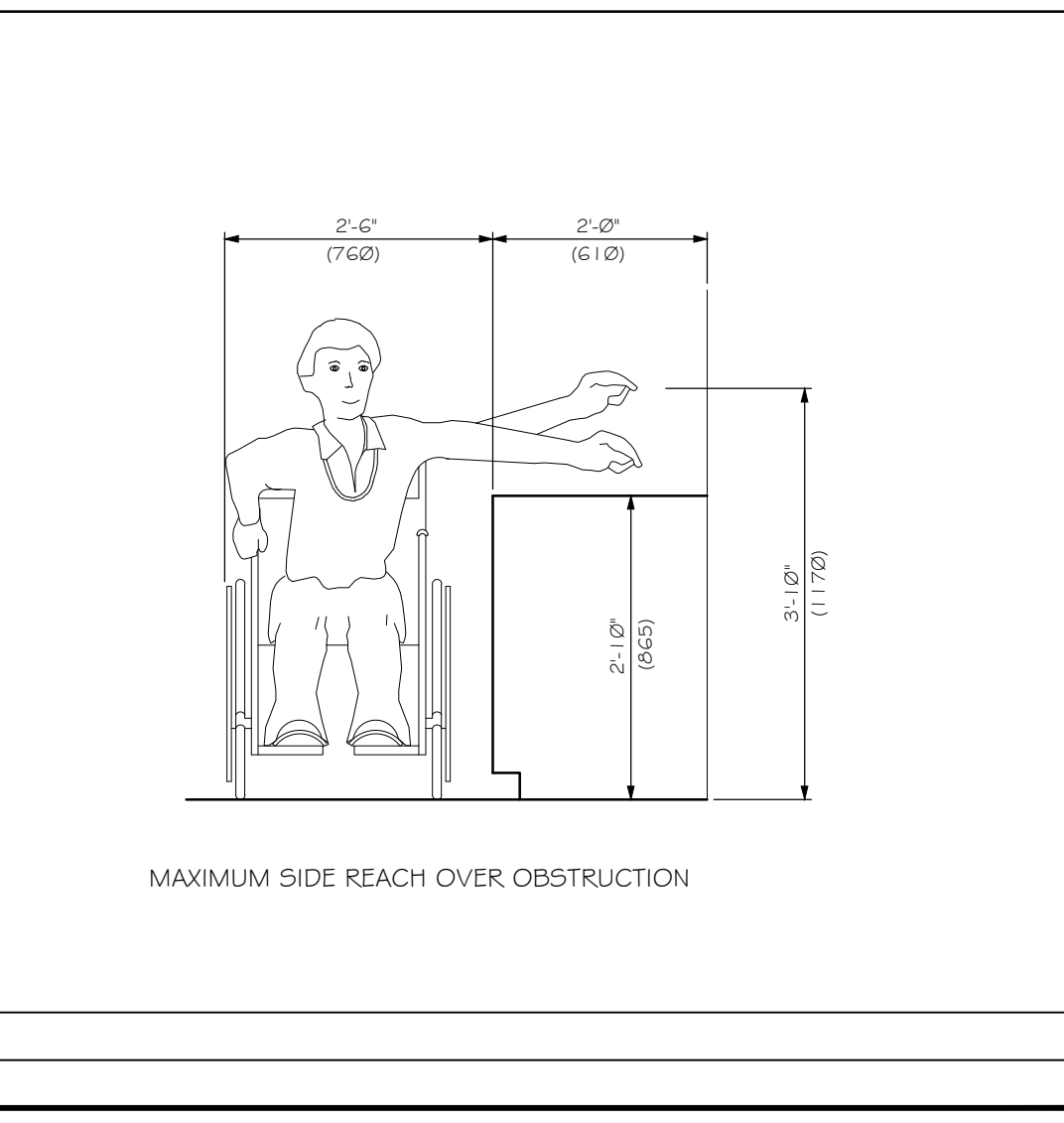
DETECTABLE WARNING INSERT (TRUNCATED DOMES)  
NOT TO SCALE



VAN ACCESSIBLE PARKING PLAN  
NOT TO SCALE



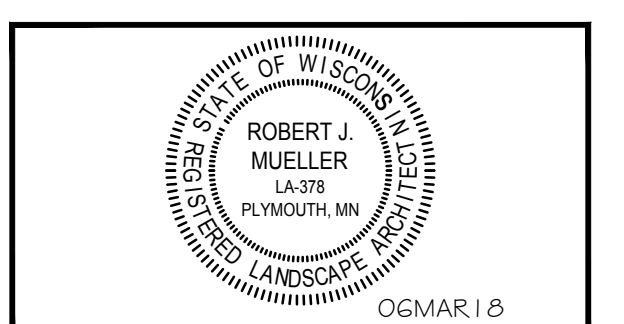
HIGH AND LOW - SIDE REACH LIMITS  
ACCESSIBLE REACH DIMENSIONS  
NOT TO SCALE



MAXIMUM SIDE REACH OVER OBSTRUCTION



**KWIK TRIP, Inc.**  
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FAX (608) 781-8960



**ACCESSIBILITY PLAN**

**CONVENIENCE STORE 968**

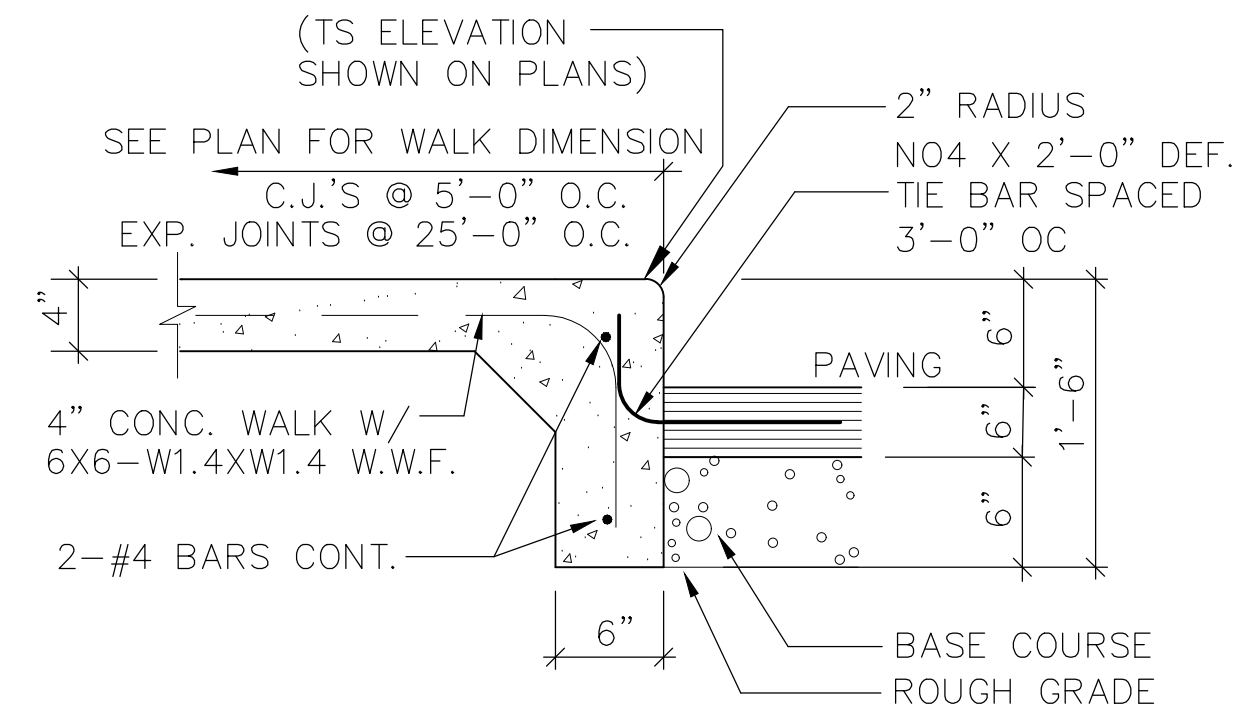
**2302 E MORELAND BLVD WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: GRAPHIC  
SCALE: 1/2"=40'  
PROJ. NO.: 17968  
DATE: 09JAN2018  
SHEET: SPA

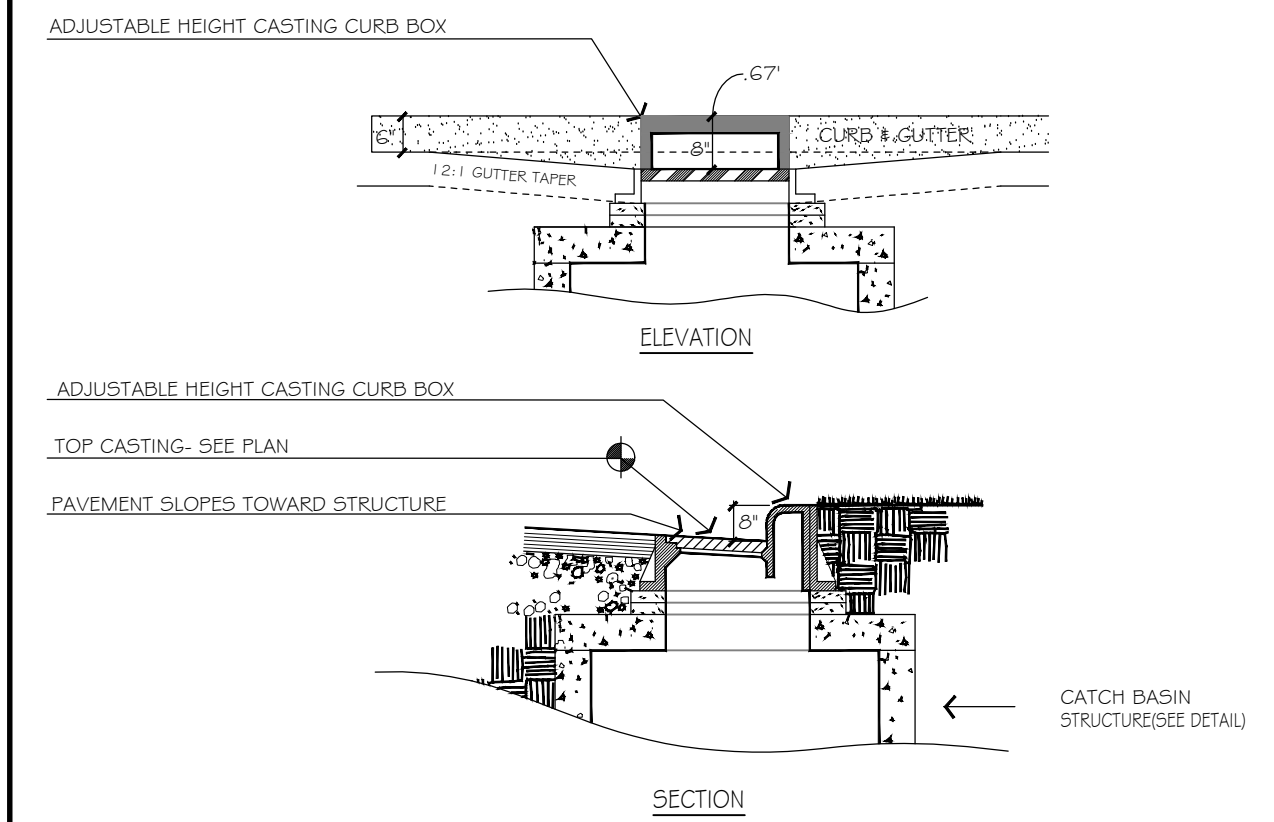
REVISED 17-052 R.M.C.N.

1  
SPD

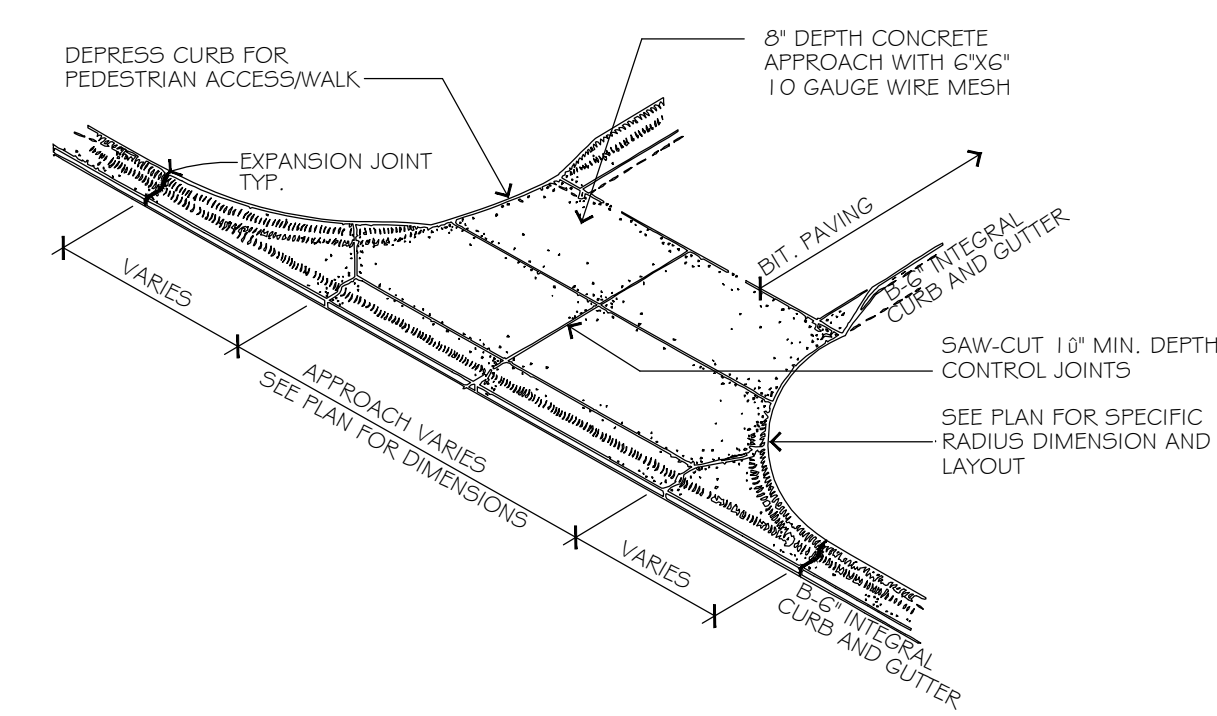


7  
SPD  
SIDEWALK CURB DETAIL  
NOT TO SCALE

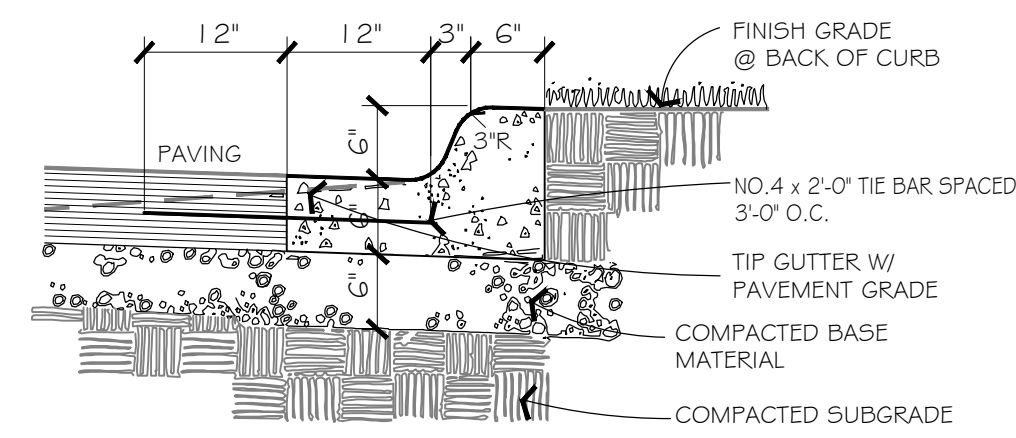
NOTE: THIS CURB CONSTRUCTION DETAIL IS TO BE USED AT LOW POINTS WHEN INDICATED ON PLAN. SEE GRADE PLAN FOR SPECIFIC CURB ELEVATIONS THAT REFLECT 8" DIFFERENCE FROM TOP OF CURB TO CASTING (SEE ACTUAL CB DETAILS FOR STRUCTURE INFO.)



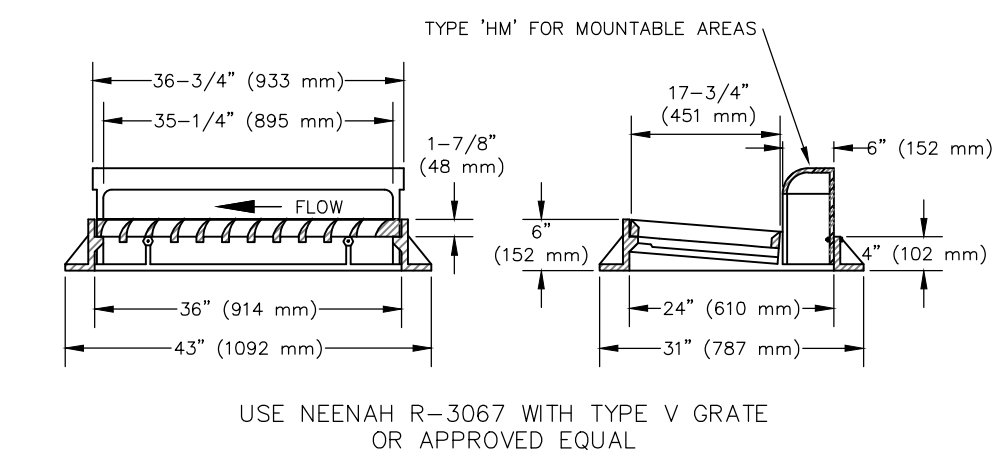
10  
SPD  
CURBLINE DETAIL AT CATCHBASIN/PAVEMENT LOW POINTS (SPECIFIC LOCATIONS)  
NOT TO SCALE



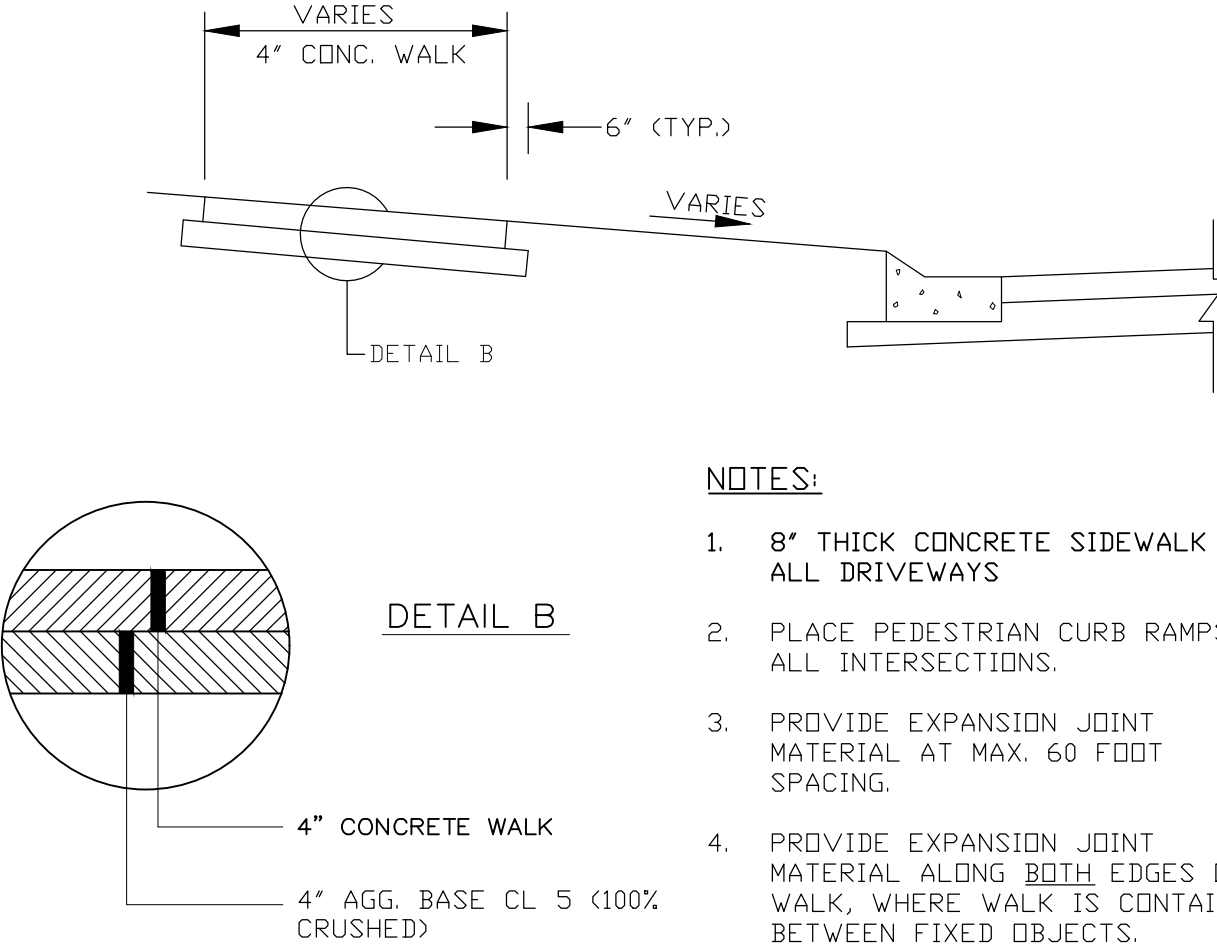
2  
SPD  
CONCRETE APPROACH DETAIL  
NOT TO SCALE



5  
SPD  
CONCRETE CURB DETAIL  
SCALE - 3/4" = 1'-0"

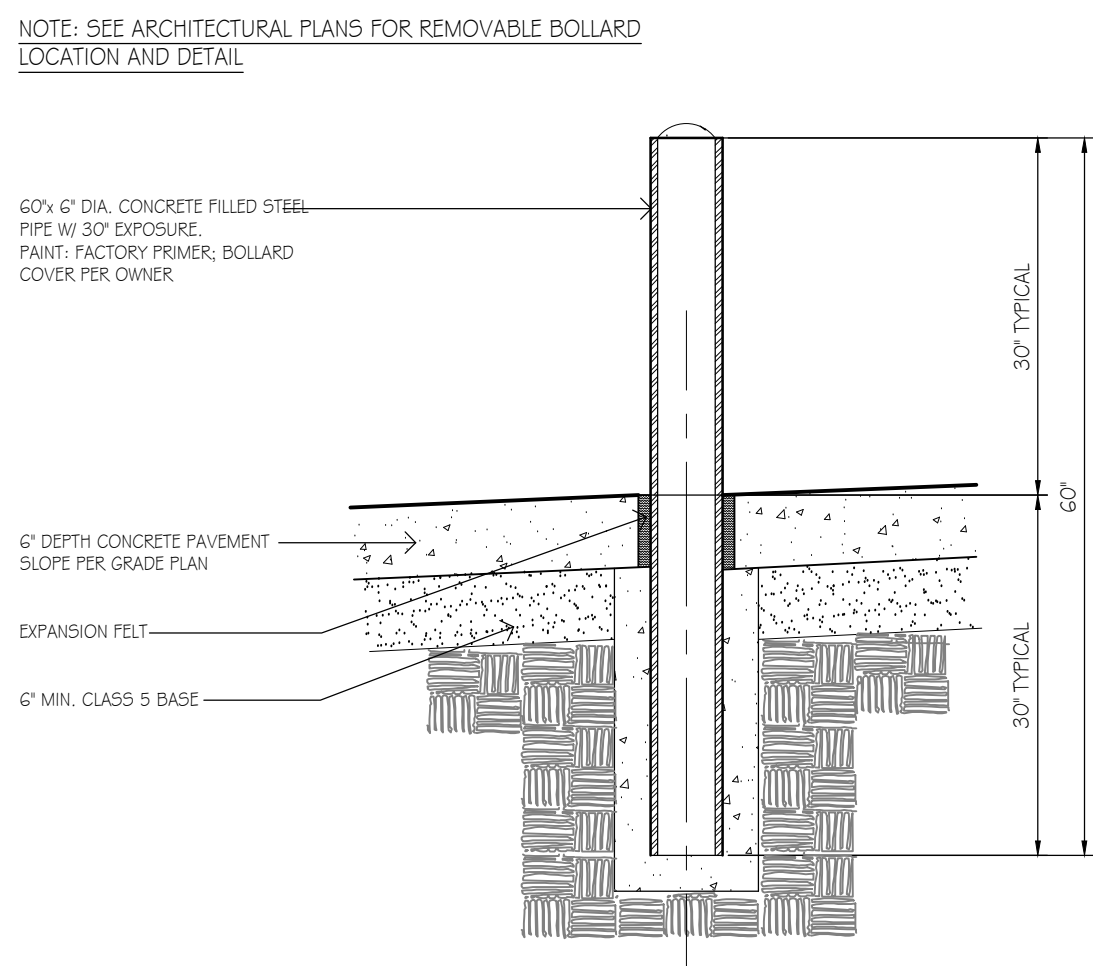


11  
SPD  
24x36 CURB INLET AND CASTING DETAIL  
NOT TO SCALE

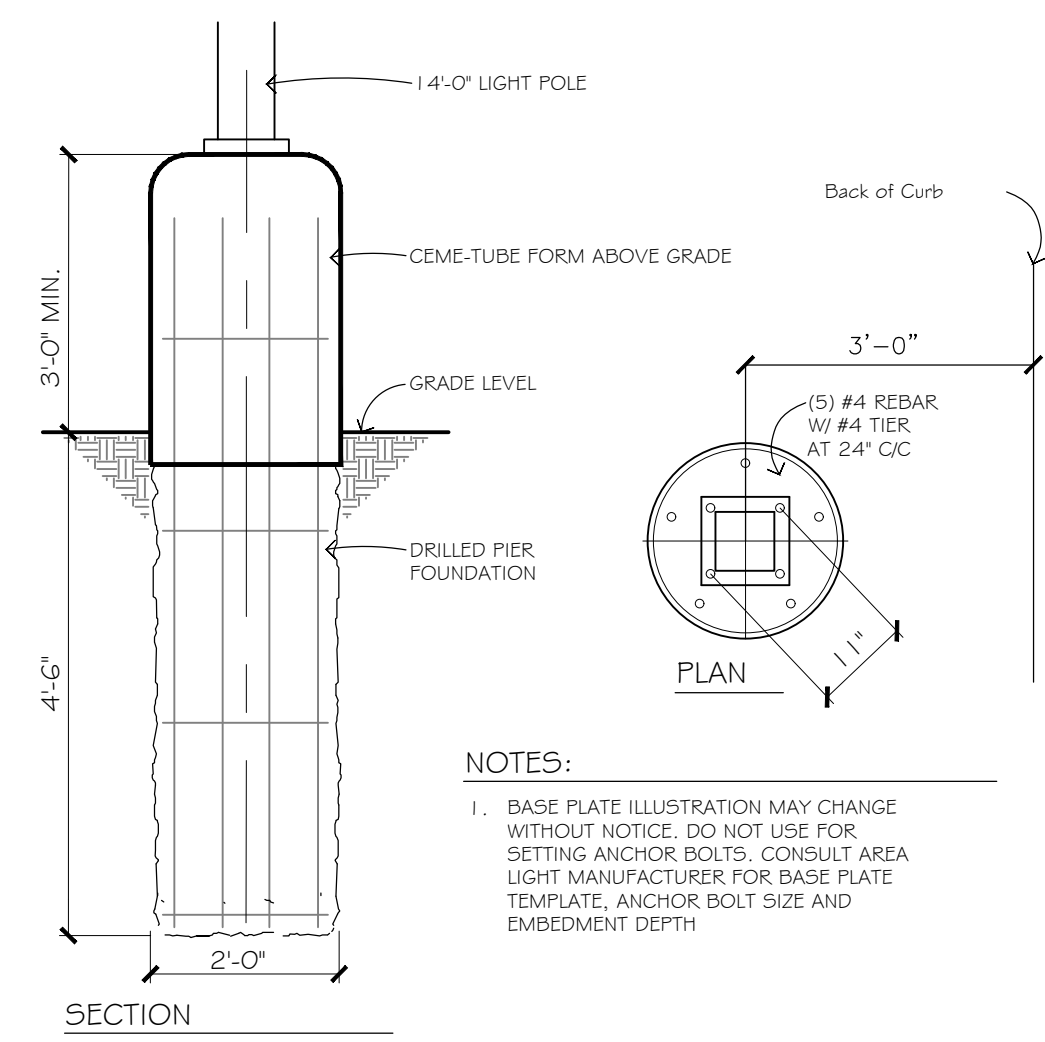


3  
SPD  
CONCRETE WALK/PAD DETAIL  
NOT TO SCALE

- NOTES:**
- 8" THICK CONCRETE SIDEWALK AT ALL DRIVEWAYS
  - PLACE PEDESTRIAN CURB RAMPS AT ALL INTERSECTIONS.
  - PROVIDE EXPANSION JOINT MATERIAL AT MAX. 60 FOOT SPACING.
  - PROVIDE EXPANSION JOINT MATERIAL ALONG BOTH EDGES OF WALK, WHERE WALK IS CONTAINED BETWEEN FIXED OBJECTS.

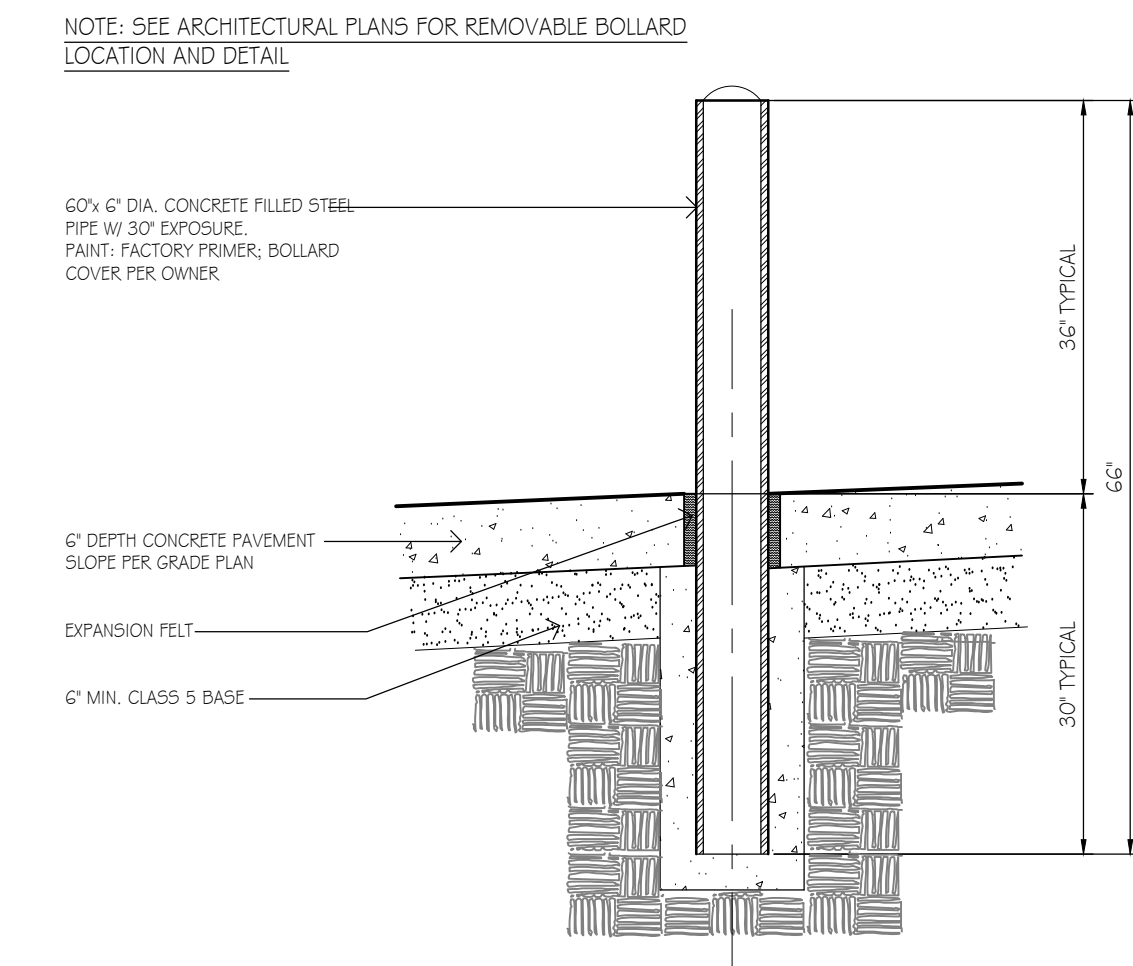


6  
SPD  
60"x 6" DIAMETER PIPE BOLLARD  
SCALE - 3/8" = 1'-0"



9  
SPD  
ROUND AREALIGHT FOUNDATION  
SCALE - 1/2" = 1'-0"

- NOTES:**
- BASE PLATE ILLUSTRATION MAY CHANGE WITHOUT NOTICE. DO NOT USE FOR SETTING ANCHOR BOLTS. CONSULT AREA LIGHT MANUFACTURER FOR BASE PLATE TEMPLATE, ANCHOR BOLT SIZE AND EMBEDMENT DEPTH.



12  
SPD  
66"x 6" DIAMETER PIPE BOLLARD  
SCALE - 3/8" = 1'-0"

**KWIK  
TRIP**

**KWIK  
STAR**

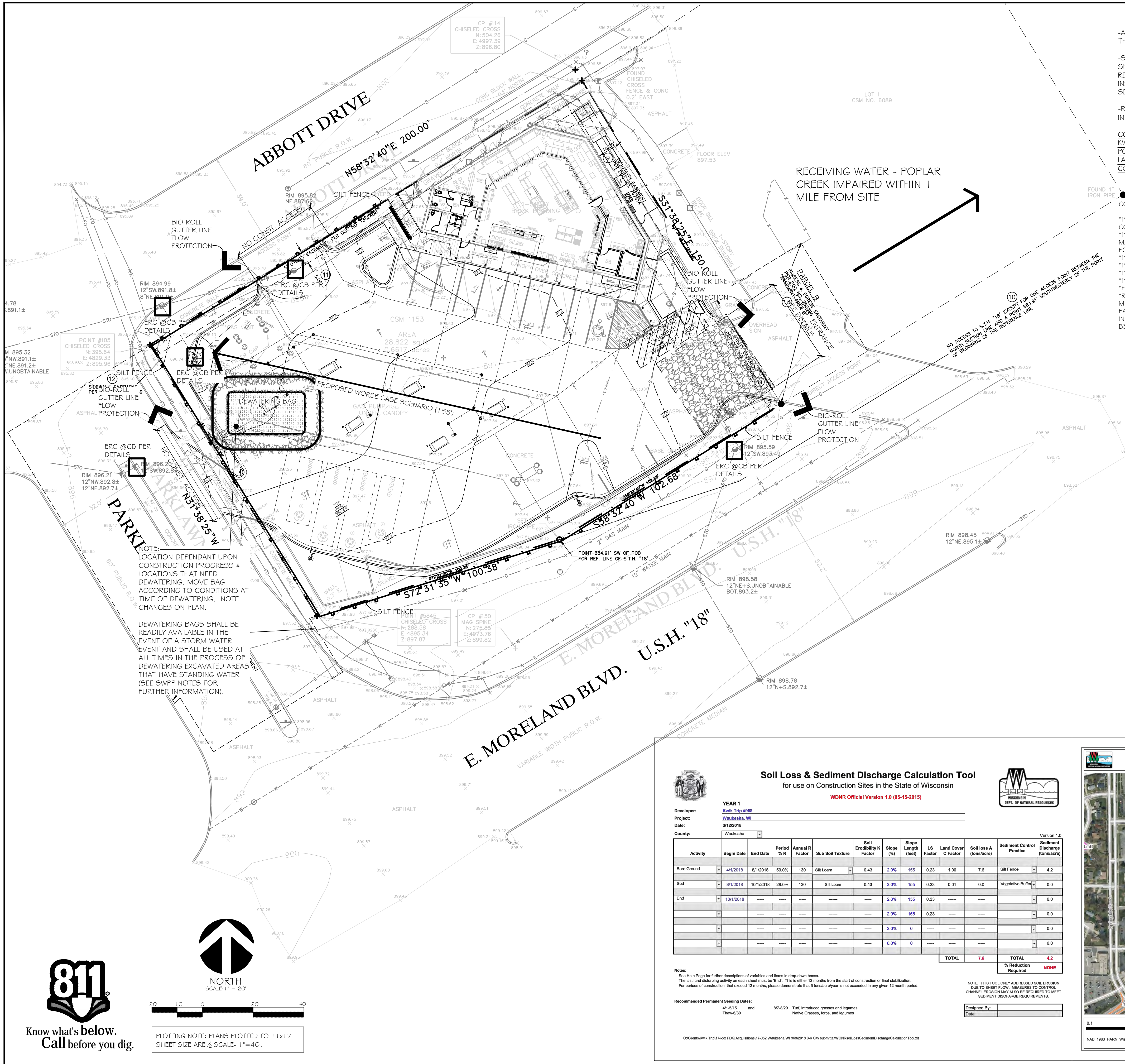
**KWIK TRIP, Inc.**  
P.O. BOX 2107  
1626 OAK STREET  
LACROSSE, WI 54602-2107  
PH. (608) 781-8988  
FAX (608) 781-8960

**INSITES**  
SITE PLANNING LANDSCAPE ARCHITECTURE  
3030 Harbor Lane North, STE 131  
Plymouth Minnesota 55447  
763.383.8400  
fax 763.383.8410

**SITE PLAN DETAILS**  
**CONVENIENCE STORE 968**

**2302 E MORELAND BLVD  
WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS
DRAWN BY: _____		
SCALE: GRAPHIC		
PROJ. NO. 17968		
DATE 09JAN2018		
SHEET <b>SPD</b>		



-ALL SILT FENCE MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO ANY SITE WORK.

-SITE EROSION CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES. SHOULD DEVICES BE REMOVED FOR WORK ACCESS, THEY SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNTIL PAVEMENTS HAVE BEEN INSTALLED AND ALL LANDSCAPE AREAS HAVE BEEN MATCHED AND SODED. SEEDED AREAS MUST EXHIBIT MINIMUM OF 70% SOIL COVERAGE.

-REFER TO THE SWPPP PLAN NOTES AND DETAIL SHEETS SWPPP2-4 FOR MORE INFORMATION.

CONTACT CHRIS NUTINI  
 KWIK TRIP, INC  
 PO BOX 2107  
 LACROSSE, WI 54602  
 608-793-5581

PROJECT DATA	
PROJECT START DATE	APRIL 2018
PROJECT COMPLETION DATE	OCTOBER 2018
SITE AREA DATA	
TOTAL SITE AREA	28,822 SF
APPROX. AREA OF LAND DISTURBANCE	1,00%
DOWN-STREAM TRIBUTARY	POPLAR CREEK THEN FLOWS INTO UPPER FOX RIVER WATERSHED

- CONSTRUCTION SEQUENCE**
- \*INSTALL EROSION/SEDIMENT CONTROL MEASURES
  - \*INSTALL STORMWATER MANAGEMENT AND/OR POND/SEDIMENT BASINS
  - \*INSTALL STORM SEWER
  - \*INSTALL STRUCTURES
  - \*INSTALL PAVEMENTS
  - \*INSTALL LAWN/LANDSCAPE
  - \*FLUSH STORM SEWER
  - \*REMOVE EROSION CONTROL MEASURES ONLY AFTER ALL PAVEMENTS HAVE BEEN INSTALLED AND ALL SOILS HAVE BEEN STABILIZED

Estimated Preliminary Erosion Control Quantities  
 (actual quantities subject to change)

Item	Quantity
Rock Construction Entrance	130 sq.yd.
Silt Sack	5(total structures to protect)
Erosion Control Blanket(basin)	--- sq.yd.
Rip Rap	--- cu. yd.
Silt Fence	432 l.f.
Rock Filtration dikes	--- l.f.
Bio Roll/erosion log	18 l.f.

Note: for maintenance purposes contractor shall all sufficient quantities for repair and replacement of erosion control devices throughout all phases of the projects construction.

NOTE- LOCATION DEPENDANT UPON CONSTRUCTION PROGRESS & LOCATIONS THAT NEED DEWATERING. MOVE BAG ACCORDING TO CONDITIONS AT TIME OF DEWATERING. NOTE CHANGES ON PLAN.

DEWATERING BAGS SHALL BE READILY AVAILABLE IN THE EVENT OF A STORM WATER EVENT AND SHALL BE USED AT ALL TIMES IN THE PROCESS OF DEWATERING EXCAVATED AREAS THAT HAVE STANDING WATER (SEE SWPPP NOTES FOR FURTHER INFORMATION).

### Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin  
 WDNR Official Version 1.0 (05-15-2015)

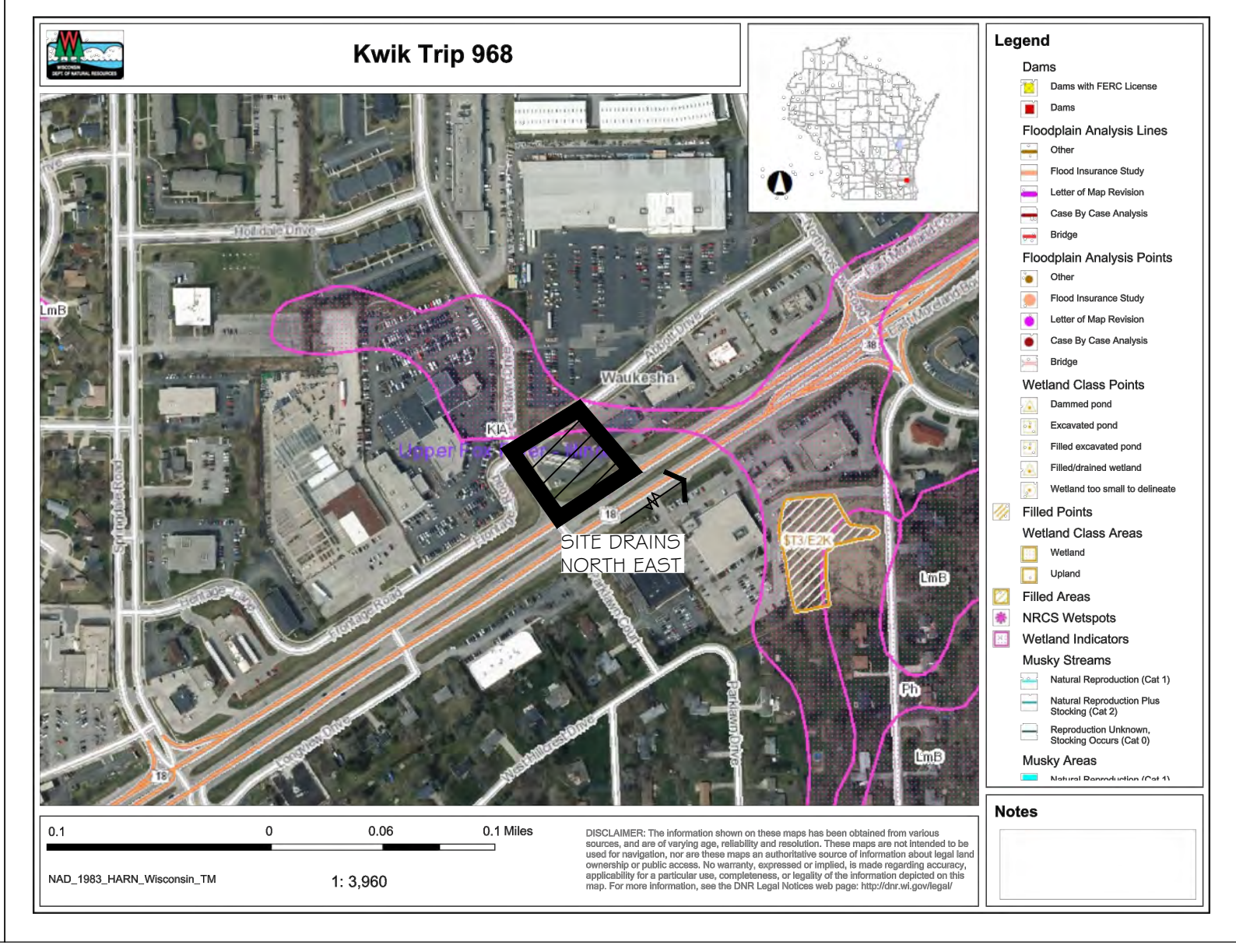
Developer: Kwik Trip #968  
 Project: Waukesha, WI  
 Date: 5/12/2018  
 County: Waukesha

Activity	Begin Date	End Date	Period % R	Annual R Factor	Sub Soil Texture	Soil Erodibility K Factor	Slope (%)	Slope Length (feet)	LS Factor	Land Cover C Factor	Soil loss A (tons/acre)	Sediment Control Practice	Sediment Discharge (tons/acre)
Bare Ground	4/1/2018	8/1/2018	50.0%	130	SH Loam	0.43	2.0%	155	0.23	1.00	7.6	Silt Fence	4.2
Sod	8/1/2018	10/1/2018	28.0%	130	SH Loam	0.43	2.0%	155	0.23	0.01	0.0	Vegetative Buffer	0.0
End	10/1/2018						2.0%	155	0.23				0.0
							2.0%	155	0.23				0.0
							0.0%	0					0.0
<b>TOTAL</b>											<b>7.6</b>		<b>4.2</b>
												<b>% Reduction Required</b>	<b>NONE</b>

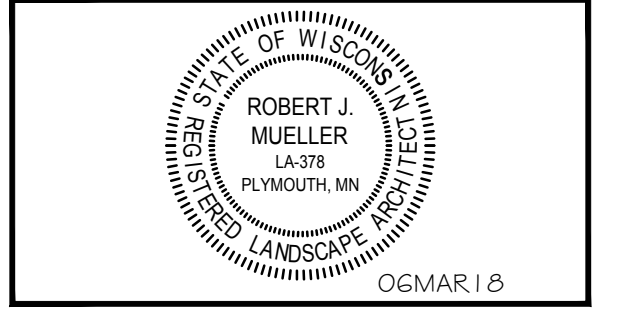
Notes:  
 See Help Page for further descriptions of variables and items in dropdown boxes.  
 The last land disturbing activity on each sheet must be 'END'. This is either 12 months from the start of construction or final stabilization.  
 For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

Recommended Permanent Seeding Dates:  
 4/1-5/15 and 8/7-8/29 Turf, introduced grasses and legumes  
 Then 6/30 Native Grasses, forbs, and legumes

Designed By: [Signature]



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 LACROSSE, WI 54602-2107  
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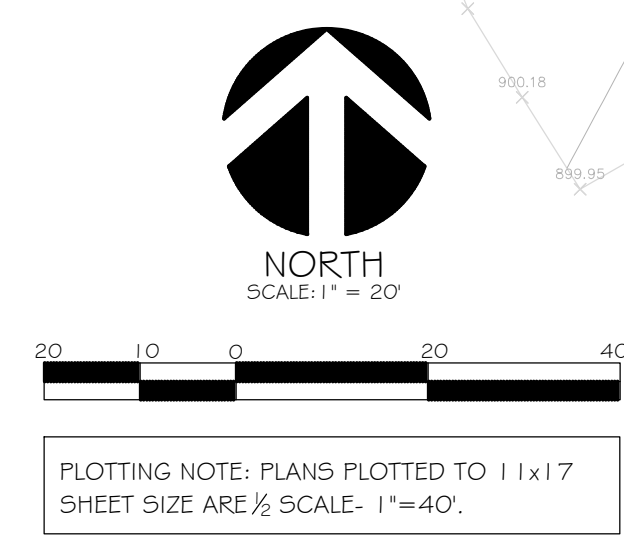
**EROSION CONTROL PLAN**

**CONVENIENCE STORE 968**

**2302 E MORELAND BLVD WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: [Signature] GRAPHIC  
 SCALE: 1"=40'  
 PROJ. NO.: 17968  
 DATE: 09JAN2018  
 SHEET: SWP1



REVISED 17-052 RJC

GENERAL STORMWATER POLLUTION PREVENTION :

Apply for and obtain all necessary permits for Construction Activity.

Stormwater Pollution Prevention Plan (SWPPP): The SWPPP includes this narrative, Plan Sheets SP3, SP3.1 and SP3.2, and the Stormwater Management Calculations. Keep a copy of the SWPPP, all changes to it, and inspections and maintenance records at the site during the construction process. During the construction process the SWPPP will have to be amended for all changes performed by the contractor. The owner shall be aware of the amendments prior to changes made to the SWPPP plan. All notes, photographs, recorded dates, sketches, references, and diagrams will have to be recorded and made available as part of the SWPPP permit.

Individual(s) preparing the SWPPP for the project, overseeing implementation of the SWPPP, revising and amending the SWPPP, and at least one individual on the project performing installation, inspection, maintenance, and repairs of BMP's must be trained. The training must be done by a local, state, federal agencies; professional organization; or other entities with expertise in erosion prevention, sediment control, or permanent Stormwater management.

Responsible Parties: The contractor must designate a person knowledgeable and experienced in the application of erosion prevention and sediment control BMP's who will oversee the implementation of the SWPPP, and the installation, inspection, and maintenance of the erosion prevention and sediment control BMP's before and during construction.

The owner is responsible for identifying who will have responsibility for the long term operation and maintenance of the permanent stormwater management systems.

Owner contact:

CONTACT CHRIS NUTINI
KWIK TRIP, INC
PO BOX 2107
LACROSSE, WI 54602
608-793-5551

SITE INVESTIGATION, INSTALLATION, IMPLEMENTATION :

- 1. Prior to any work, contractor shall visit the site, document existing conditions as necessary(photos, notes, etc) and note existing drainage patterns on and off site that are related to the project.
2. Install all temporary erosion and sediment control measures including silt fence, rock construction entrance(s), erosion control silt fence, rock filter, silt sacks, rock filter/earth berms, and sedimentation basins.
3. Prior to beginning site cleaning and grading, protect all storm sewer inlets that receive runoff from disturbed areas.
4. Before beginning construction, install a TEMPORARY ROCK CONSTRUCTION ENTRANCE at each point where vehicles exit the construction site.
5. Avoid entire removal of trees and surface vegetation all at once whenever possible as this limits the amount of site susceptible to erosion.
6. Following initial soil disturbance or re-disturbance, complete permanent or temporary stabilization against erosion due to rain, wind, and running water within 7 calendar days on all disturbed or graded areas.
7. Receiving Waters - It is the contractors responsibility to inspect the site discharge point as well as downstream to the receiving body of water(pond, lake, stream, etc.)

NOTE: ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE CHECKED BY THE CONTRACTOR AFTER EACH STORM EVENT AND BE MAINTAINED, OR IMPROVED UPON AFTER EVERY STORM EVENT TO ENSURE ADEQUATE PERFORMANCE.

POLLUTION CONTROL :

- 1. Designate a Concrete Wash-out and truck wash area:
a. When washouts occur on the site, concrete washout water must be contained in a leak-proof containment facility or impermeable liner.
b. On sites where Concrete Washout areas are not feasible as shown on the Detail Sheet, above ground methods and/or off-site methods can be utilized as approved by Owner.
c. Concrete washout may be provided off-site by Concrete Contractor or Concrete Supplier, at an approved washout disposal area.
d. Limit external washing of trucks and other construction vehicles to a defined area preferably before the construction access/exit point.
2. Solid Waste: Properly dispose of collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris, and other wastes in compliance with State requirements.
3. Hazardous Materials: Properly dispose of all waste and unused building materials (including garbage debris, cleaning wastes, oil, gasoline, paint, wastewater, toxic materials, and hazardous materials) off-site.
4. Machinery: and mechanized equipment that leaks waste shall have a protective barrier or containment under the device adequate to contain the waste.
5. Emergency spill station: Contractor shall locate and sign an emergency spill station that has necessary containment or cleanup devices for all workers to access.

EROSION CONTROL :

Apply necessary moisture to the construction area and haul roads to prevent the spread of dust.

Contractor shall utilize coarsely ground wood and tree mulches to cover exposed soils. Mulches shall be stored on site to supplement and use in problem areas during all phases of the construction project.

Contractor shall uses star tack or other organic substances in situations to prevent soil from eroding away by wind or rain.

Whenever possible contractor shall grade areas of soil to limit potential of erosion, to include tracking perpendicular to fall line of grades as well as diverting water flows from problematic areas on the site.

Seeding, fiber blankets, polytarps or cover mulches, disked mulches and compost can be used to cover temporarily exposed areas from wind and rain. Other methods by the contractor shall be documented in the SWPPP.

SEDIMENT CONTROL :

Inlet Sediment Control Protection Devices:

The following area approved Inlet Sediment Control Devices:

- a. Road Drain Top Slab Model RD 23 (fits rough opening for 2x3' inlet), Road Drain Top Slab Model RD 27 (fits rough opening for 27" inlet), or Road Drain Top Slab Model CG 3067 (fits Neenah Casting with 35-1/4"x17-3/4" dimensions) manufactured by:
b. Silt Sack manufactured by:
c. IntraSafe Sediment Control Barrier. Install geotextile sock on the outside of the barrier in order to trap additional fines.
d. Ridge Bag Rock Log. Use rock logs only for curb inlets after pavement is in place.
e. Inflatable drain plugs by Interstate Products www.interstateproducts.com or approved equal

Riprap:

Place a 450 mm (1 1/8 inch) thick layer of riprap onto a 225 mm (9 inch) thick layer of granular filter material at locations indicated on the plan in accordance with WIDOT Specification G06. Install two layers of medium duty Geotextile fabric (WIDOT HR, section G45.3.7) beneath the granular filter material. At pipe outfalls configure the installation as shown on detail sheet for the size of pipe indicated and extend the geotextile fabric under the culvert apron a minimum of 3 feet.

Silt Fence:

Install and maintain per WIDNR Conservation Practice Standard 1056.

Install silt fence along the contour (on a level horizontal plane) with the ends turned up (J-hooks) in order to help pond water behind the fence. Install the silt fence on the uphill side of the support posts. Provide a post spacing of 1.2 m (4 feet) or less. Drive posts at least 0.6 m (2 feet) into the ground. Anchor the silt fence fabric in a trench at least 152 mm (6 inches) deep and 152 mm (6 inches) wide dug on the upslope side of the support posts. Lay the fabric in the trench and then backfill and compact with a vibratory plate compactor. Make any splices in the fabric at a fence post. At splices, overlap the fabric at least 152 mm (6 inches), fold it over, and securely fasten it to the fence post. Silt fence supporting posts shall be 51 mm (2 inch) square or larger hardwood, pine, or standard T- or U-section steel posts. T- or U-section steel posts shall weigh not less than 1.8602 kg per meter (1.25 lb per lineal foot). Posts shall have a minimum length of 1524 mm (5 feet). Posts shall have projections to facilitate fastening the fabric and prevent slippage. Geotextile fabric shall meet the requirements of WIDOT Standard Specification 628 for preassembled silt fence, furnished in a continuous roll in order to avoid splices. Geotextile fabric shall be uniform in texture and appearance and have no defects, flaws, or tears. The fabric shall contain sufficient ultraviolet (UV) ray inhibitor and stabilizers to provide a minimum two-year service life outdoors. Fabric color shall be international orange. In high traffic areas contractor shall reinforce silt fence with wire fencing and metal posts, extreme circumstances will require temporary concrete median sections to support material backing of stock piled soil or filled earth.

Install siltfence, or other effective sediment controls, around all temporary soil stockpiles. Locate soil or dirt stockpiles containing more than 10 cubic yards of material such that the downslope drainage length is no less than 8 m (25 feet) from the toe of the pile to a roadway or drainage channel. If remaining for more than seven days, stabilize the stockpiles by mulching, vegetative cover, tarps, or other means. Control erosion from all stockpiles by placing silt fence barriers around the piles. During street repair, cover construction soil or dirt stockpiles located closer than 8 m (25 feet) to a roadway or drainage channel with tarps, and protect storm sewer inlets with silt sacks or staked siltfence. Do not stock pile soil or material near catch basins or drainage ways.

Stone Tracking Pad (Temporary Rock Construction Entrance):

Install and maintain per WIDNR Conservation Practice Standard 1057. Use 3inch to 6" diameter rock. Place the aggregate in a layer at least 300 mm (12 inches) thick across the entire width of the entrance. Extend the rock entrance at least 15 m (50 feet) into the construction zone. Use a WIDOT Type R permeable geotextile fabric material beneath the aggregate in order to prevent migration of soil into the rock from below. Maintain the entrance in a condition that will prevent tracking or flowing of sediment onto paved roadways. Provide periodic top dressing with additional stone as required. Close entrances not protected by temporary rock construction entrances to all construction traffic.

Temporary Sediment Basins

In the construction process or if noted on the plan the contractor shall construct temporary sediment basin(s). As per general rule the sediment basin shall be sized appropriately to a capacity related to the drainage area on a ratio of 3,600 cubic feet per acre of drainage zone entering the basin. Basins shall be inspected after every rainfall event, material removed and stabilized. If changes to the basin are made, document and amend the SWPPP plan.

DEWATERING :

If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility (temporary sedimentation basin, grit chamber, sand filter, upflow chamber, hydro-cyclone, swirl concentrator, dewatering bag or other appropriate facility) prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system. Discharge clear water only. To achieve better separation of the material suspended in the water a biodegradable non toxic flocculant agent may be required. For more information and materials go to by Interstate Products www.interstateproducts.com

INSPECTIONS-MAINTENANCE-DAILY RECORD-AMEND THE SWPPP PLAN

- 1. Contractor shall inspect all erosion and sediment control devices, stabilized areas, and infiltration areas on a daily basis until land-disturbing activity has ceased. Thereafter, inspect at least on a weekly basis until vegetative cover is established.
2. All inspections and maintenance activities must be recorded in writing DAILY in a detailed record(photos, sketches, etc, and kept with the SWPPP by the contractor.
3. Contractor shall remove all soils and sediments tracked or otherwise deposited onto adjacent property, pavement areas, sidewalks, streets, and alleys.
4. All soil hauled from the site shall be accounted for and documented in the SWPPP by the contractor.
5. Contractor shall maintain all temporary erosion and sediment control devices in place until the contributing drainage area has been stabilized (hard-surfaced areas paved and vegetation established in greenspace).
6. Contractor shall clean sedimentation basins, storm sewer catchbasins, ditches, and other drainage facilities as required in order to maintain their effectiveness.
7. Contractor shall inspect infiltration areas to ensure that no sediment from ongoing construction activities is accumulating.
8. Every vehicle shall not track material off-site. Clean the wheels of construction vehicles in order to remove soils before the vehicles leave the construction site.
9. Contractor shall reinforce erosion control facilities in areas where concentrated flows occur (such as swales, ditches, and areas in front of culverts and catchbasins) by backing them with snow fence, wire mesh, or stiff plastic mesh reinforcement until paving and turf establishment operations have been completed.

GENERAL SOIL STABILIZATION :

(SEE LANDSCAPE PLAN FOR MORE INFORMATION)

Establishment of lawn, prairie/wildflower and/or plant bed areas will be noted on the landscape plan

to ensure stabilization of soils, restaking of sod where applicable, proper watering and mulch maintenance will be required. Inspect seeded or sodded areas on a timely day-to-day basis. In the event of a seeding failure, reseed and mulch the areas where the original seed has failed to grow and perform additional watering as necessary at no additional cost to the Owner.

In areas to be temporarily seeded, use introduced seed mixture equivalent to WIDOT #10 or #20. Apply seed mixture per WIDOT G30.3.3.5. Incorporate a fertilizer (slow release type with 10 week residual) consisting of 23-0-30 (%N-P-K) into the soil at an application rate of 224 kg per hectare (200 lbs per acre) by diskng prior to seeding. In problematic areas it may be necessary to use a low phosphorus organic fertilizer in cases where seeds may not germinate. If this is the case, seed and fertilizer shall be disked into the surface and mulched properly to ensure germination and uptake of the Phosphorus by the seed.

To ensure adequate germination of the seed the work will be performed as follows:

Spring- from April 1 through May 15.
Fall- from August 15 to September 20.
After September 20, wait until October 30 to perform dormant seeding. Dormant seeding will only be allowed if the maximum soil temperature at a depth of 25 mm (1 inch) does not exceed 4.44 degrees C (40 degrees F) in order to prevent germination.

In seeded areas with slopes steeper than 3:1 and lengths less than 15 meters (50 feet), install biodegradable erosion control blankets uniformly over the soil surface by hand within 24 hours after seeding in accordance with manufacturers recommendations. Use WIDOT Urban Type B or owner approved equal.

In areas where irrigation is to be installed, contractor shall work in zones to finish grade and install the system in zones. Note- Erosion control measures shall remain in place until soils have been stabilized with sod or seeded areas that exhibit minimum of 70% lawn vegetative coverage. If silt fence has to be removed to install the irrigation system, it shall be reinstalled at the end of each work day or use bio rolls to provide protection during the installation process until lawn areas have sod and/or plant beds are mulched.

In areas to be sodded, silt fence can be removed short term for working, but exposed soil areas shall be sodded or erosion control measures shall be reinstalled at the end of each work day.

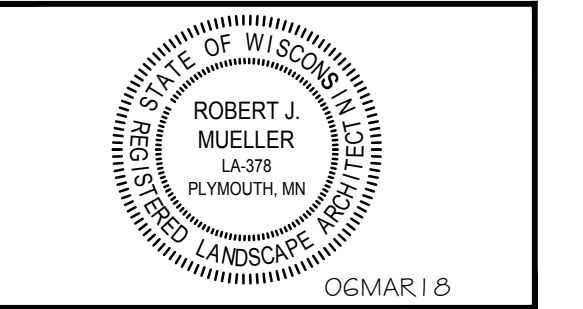
NOTE: THE PROJECTS LANDSCAPE PLAN IS PART OF THE SWPPP FOR SOIL STABILIZATION. REFERENCES SHALL BE MADE TO THE APPROVED LANDSCAPE PLAN. AMENDMENTS TO THE LANDSCAPE PLAN SHALL BE APPROVED BY THE OWNER AND DOCUMENTED AS PART OF THE SWPPP

KWIK TRIP

KWIK STAR

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INSITES
SITE PLANNING LANDSCAPE ARCHITECTURE
3030 Harbor Lane North, STE 131
Plymouth Minnesota 55447
763.383.8400
fax 763.383.8400



EROSION CONTROL NOTES
CONVENIENCE STORE 968
2302 E MORELAND BLVD
WAUKESHA, WISCONSIN

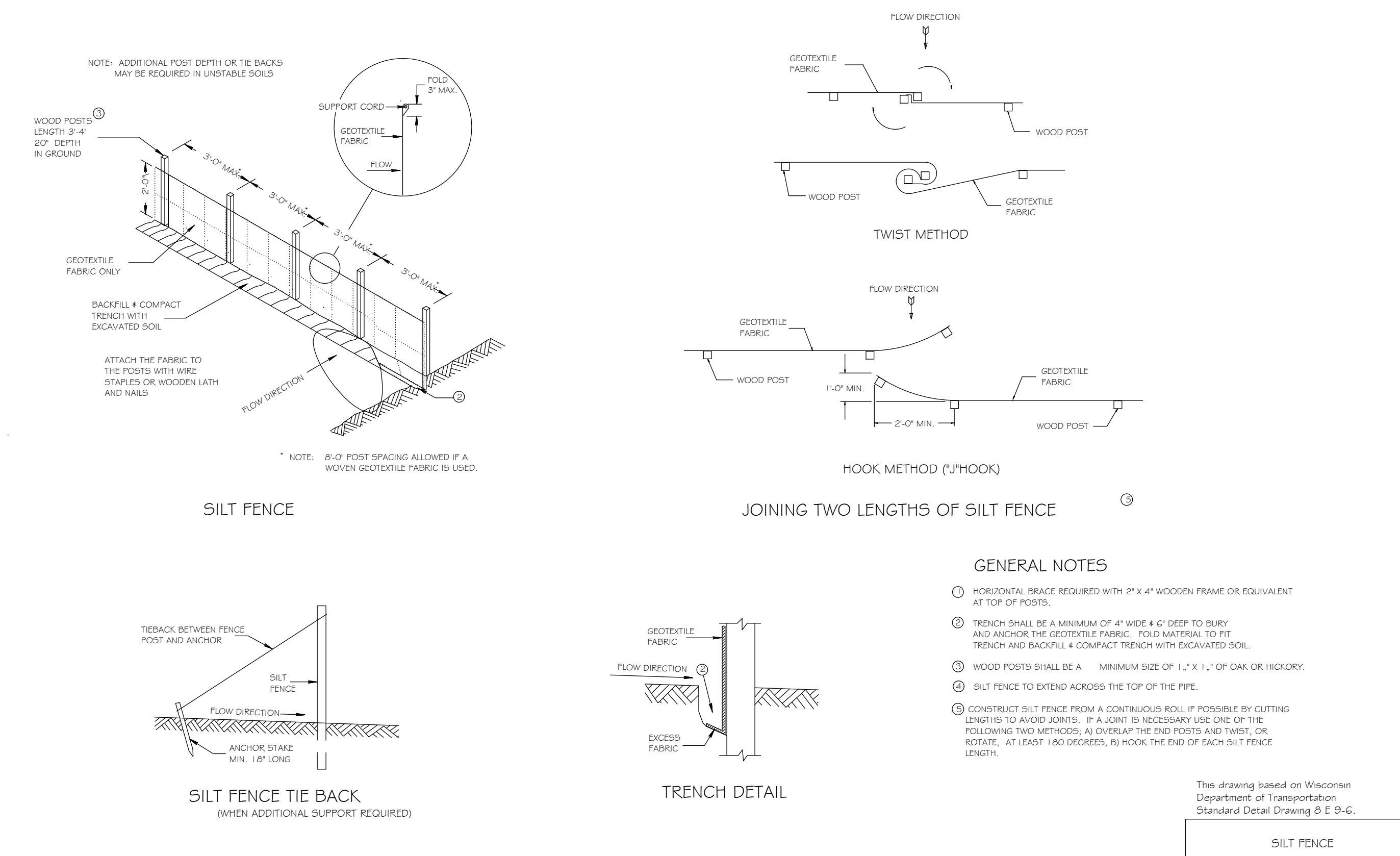
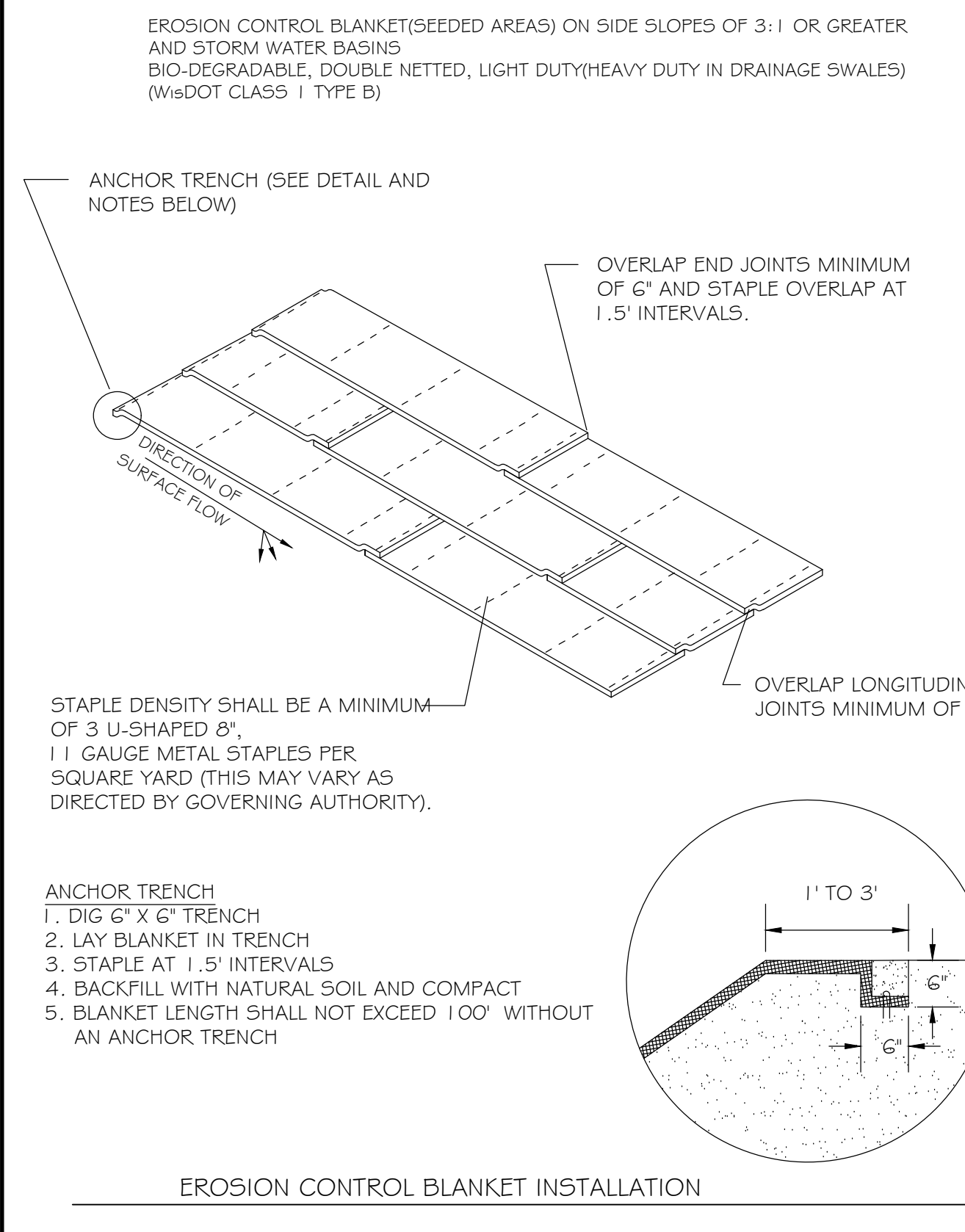
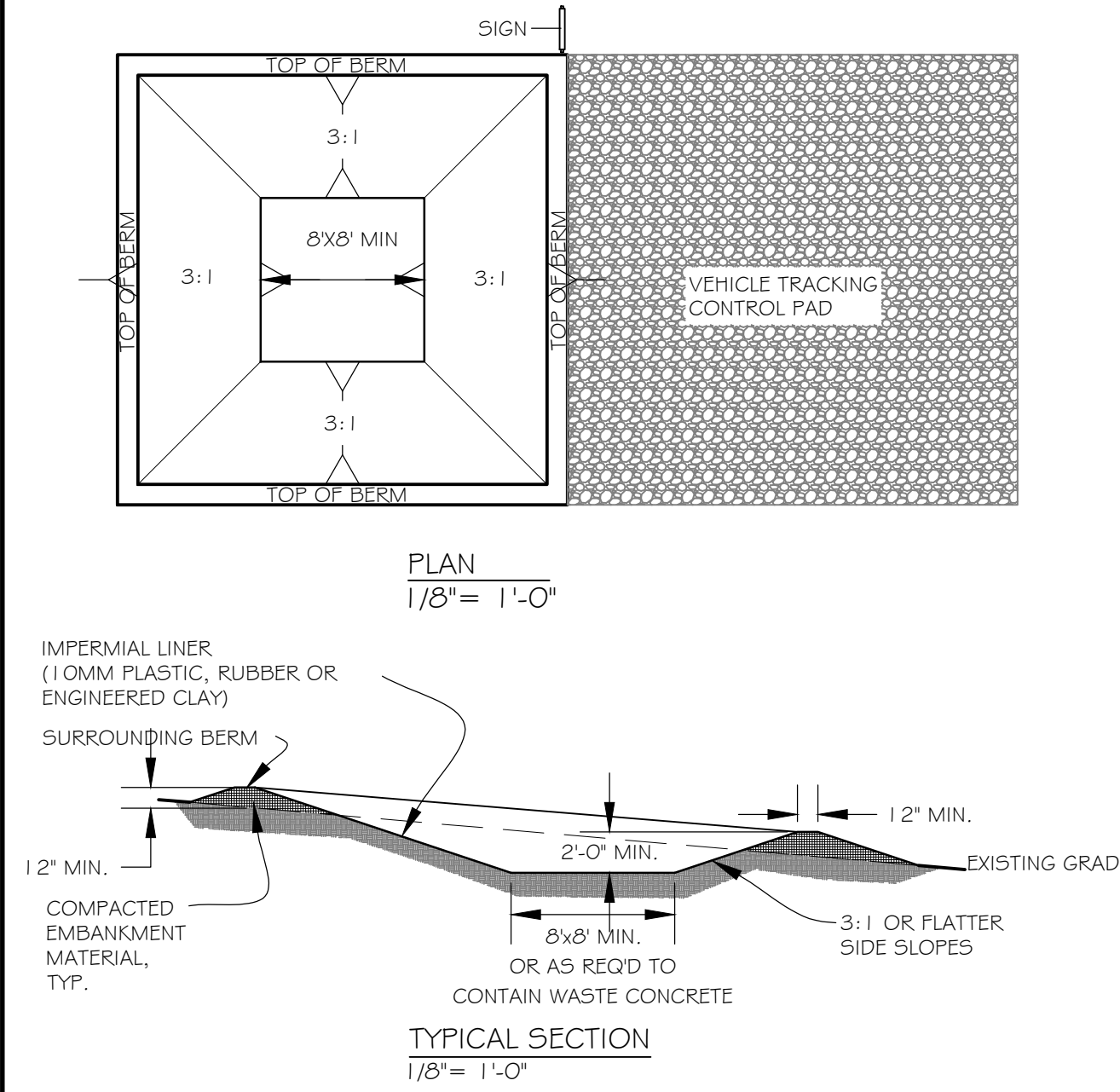
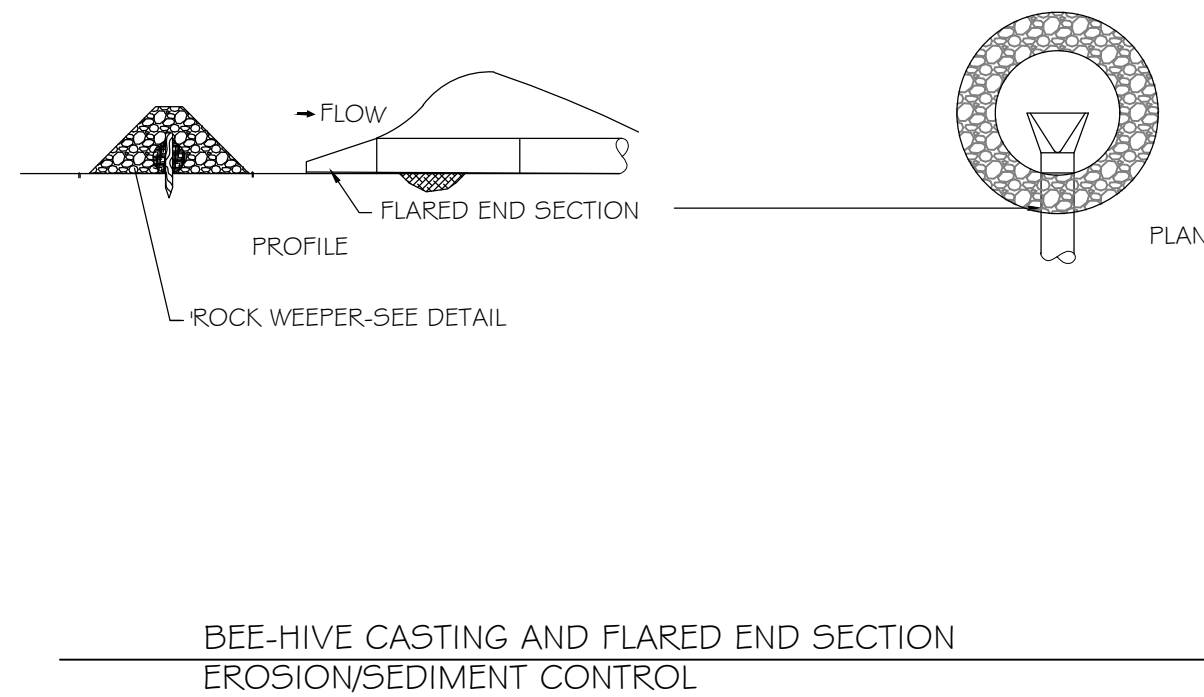
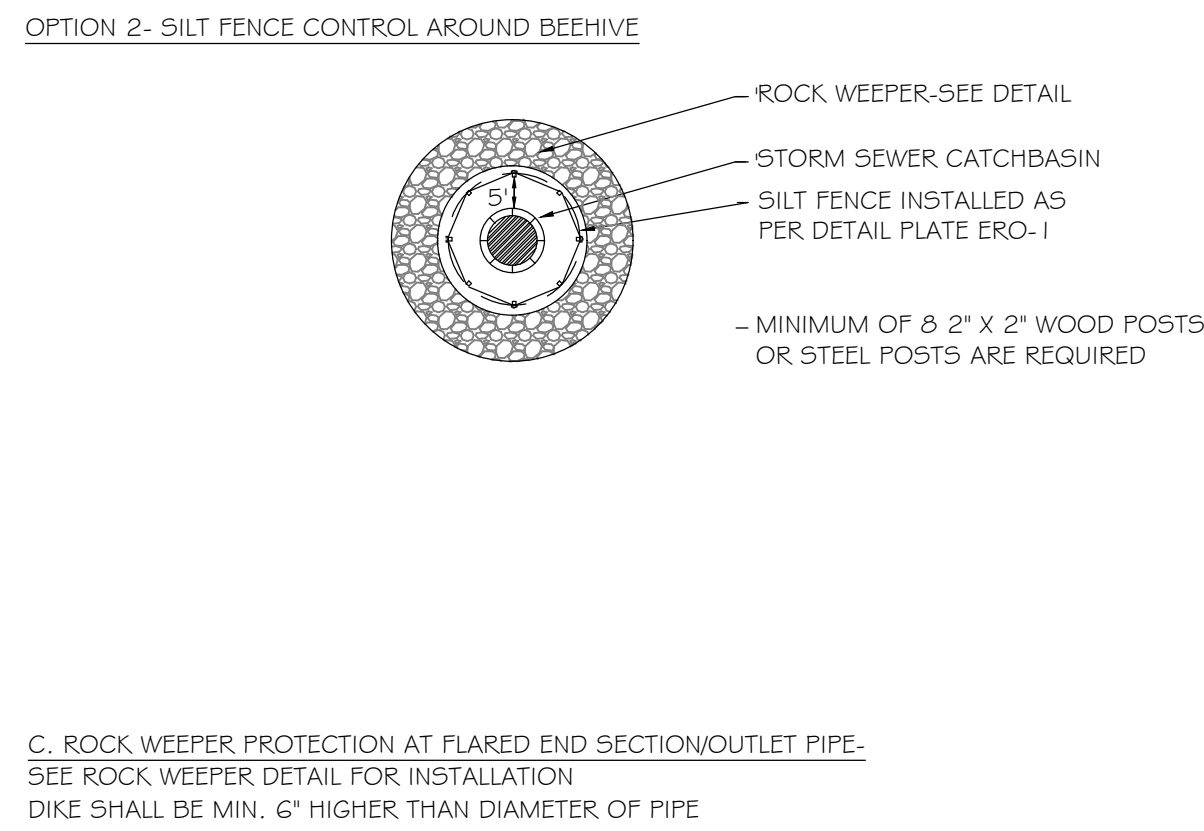
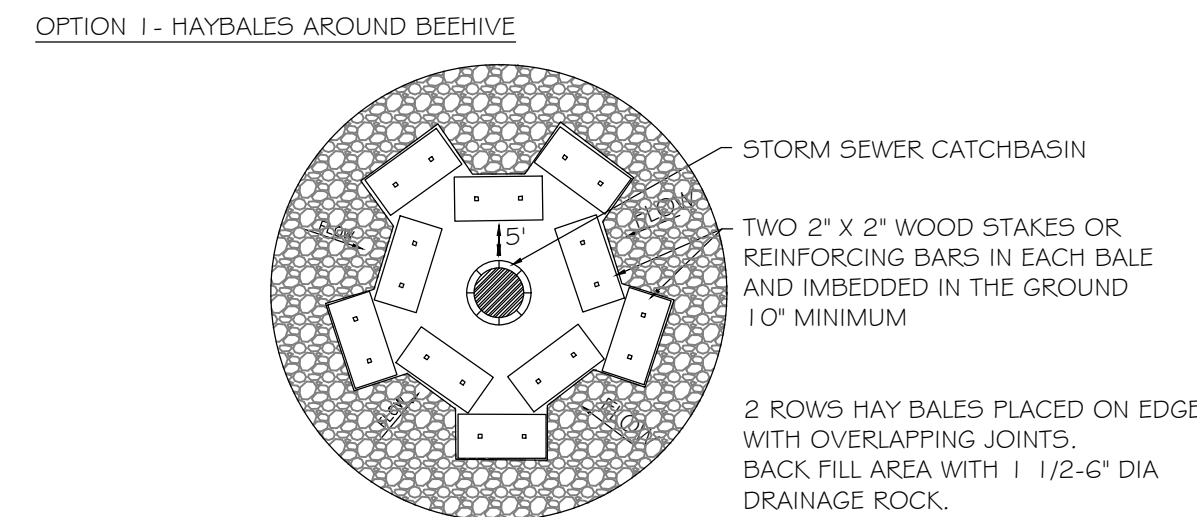
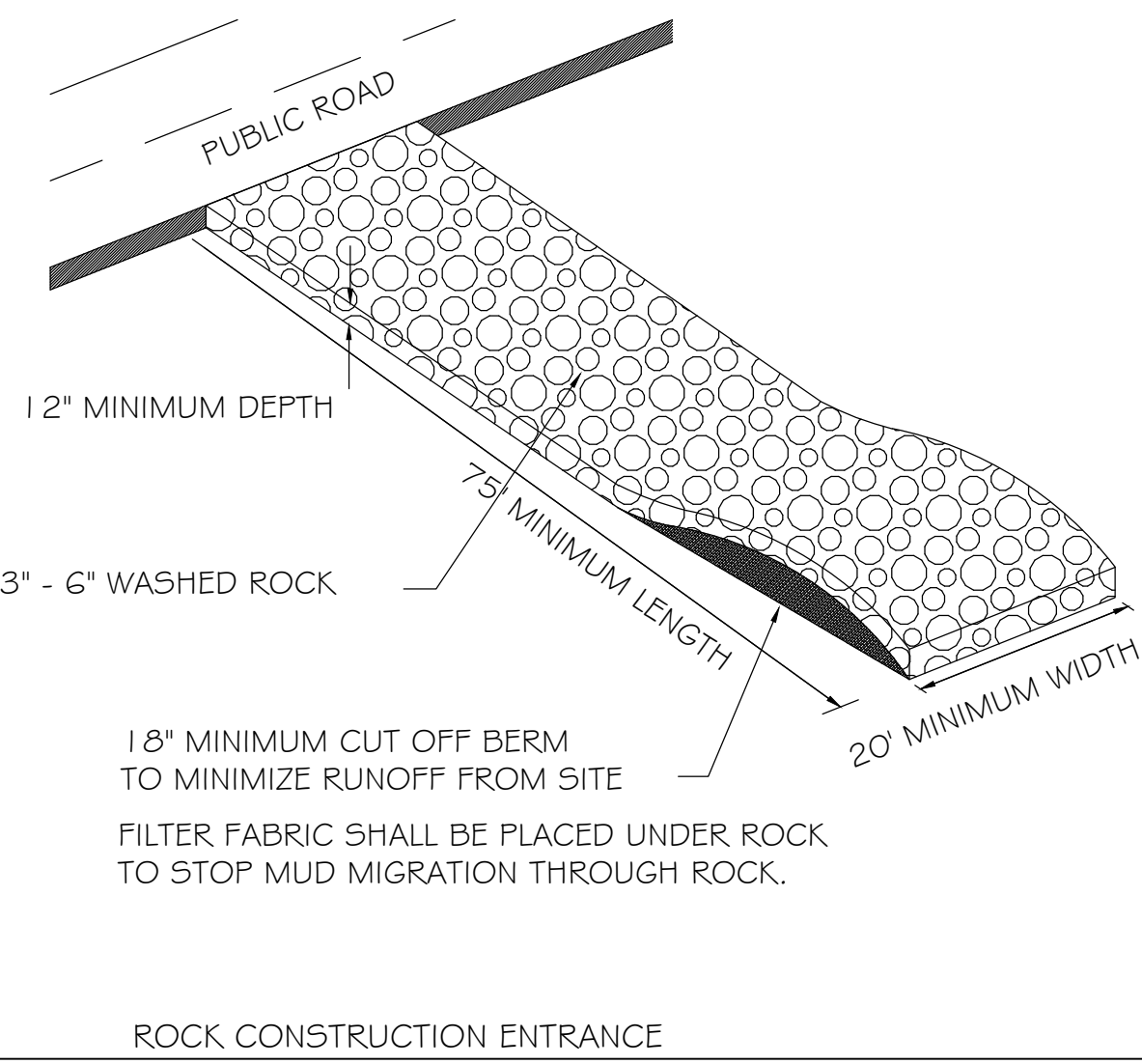
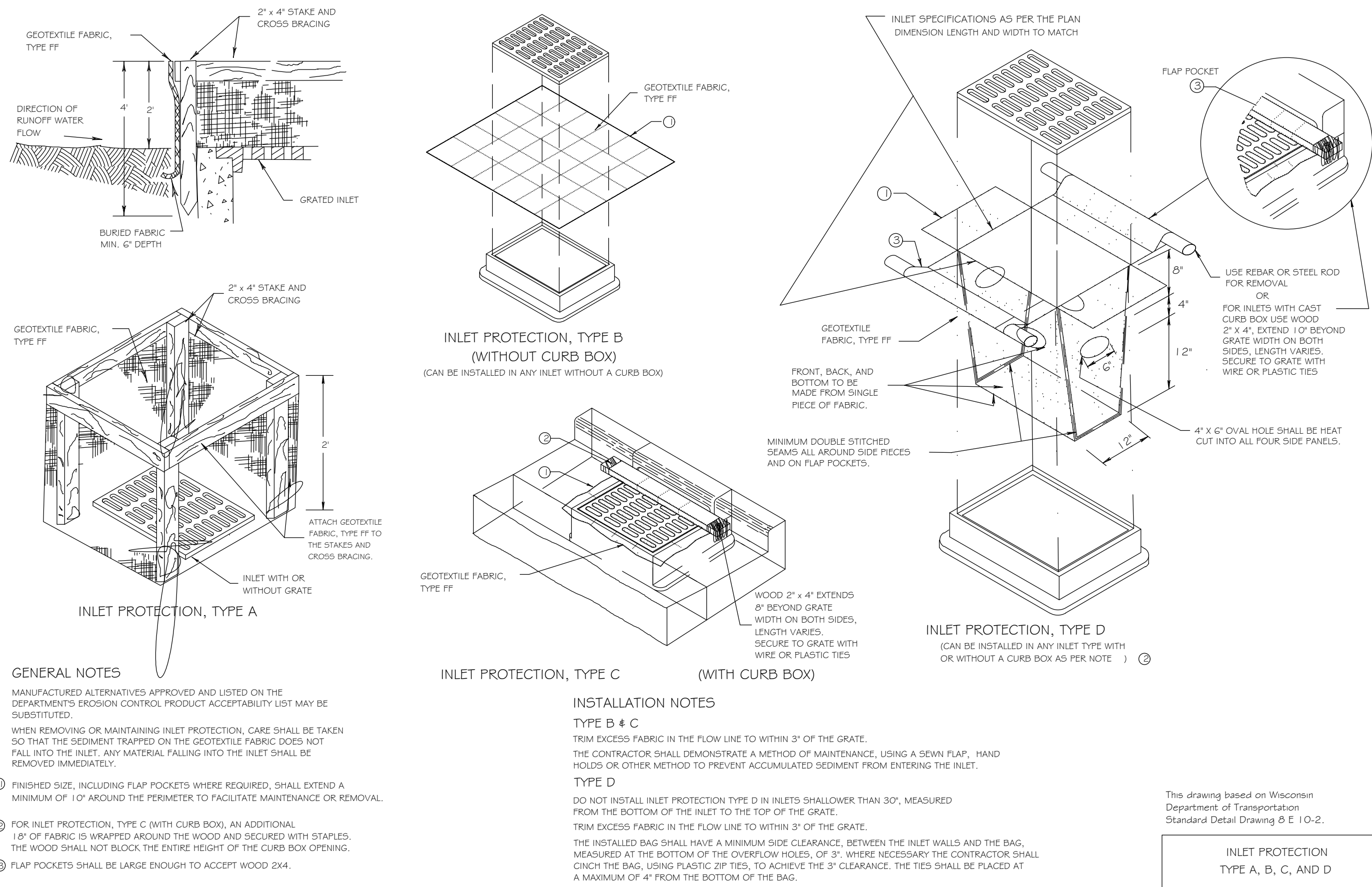
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DATE: 17-05-2018 17:05:22 P.M.C.N.



ALL EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED PER WDNR STANDARDS

<http://dnr.wi.gov/water/wm/nps/stormwater/techstds.htm>



**Kwik Trip**

**Kwik Star**

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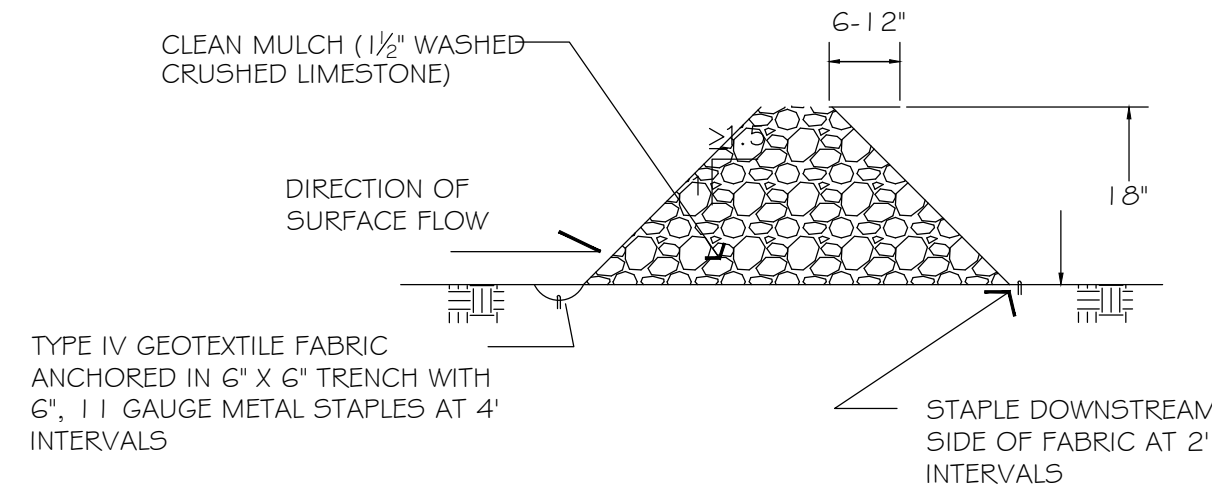
STATE OF WISCONSIN  
LANDSCAPE ARCHITECTURE  
ROBERT J. MUELLER  
LA-118  
PLYMOUTH, WI  
OCMAR 18

**EROSION CONTROL DETAILS**  
**CONVENIENCE STORE 968**  
**2302 E MORELAND BLVD WAUKESHA, WISCONSIN**

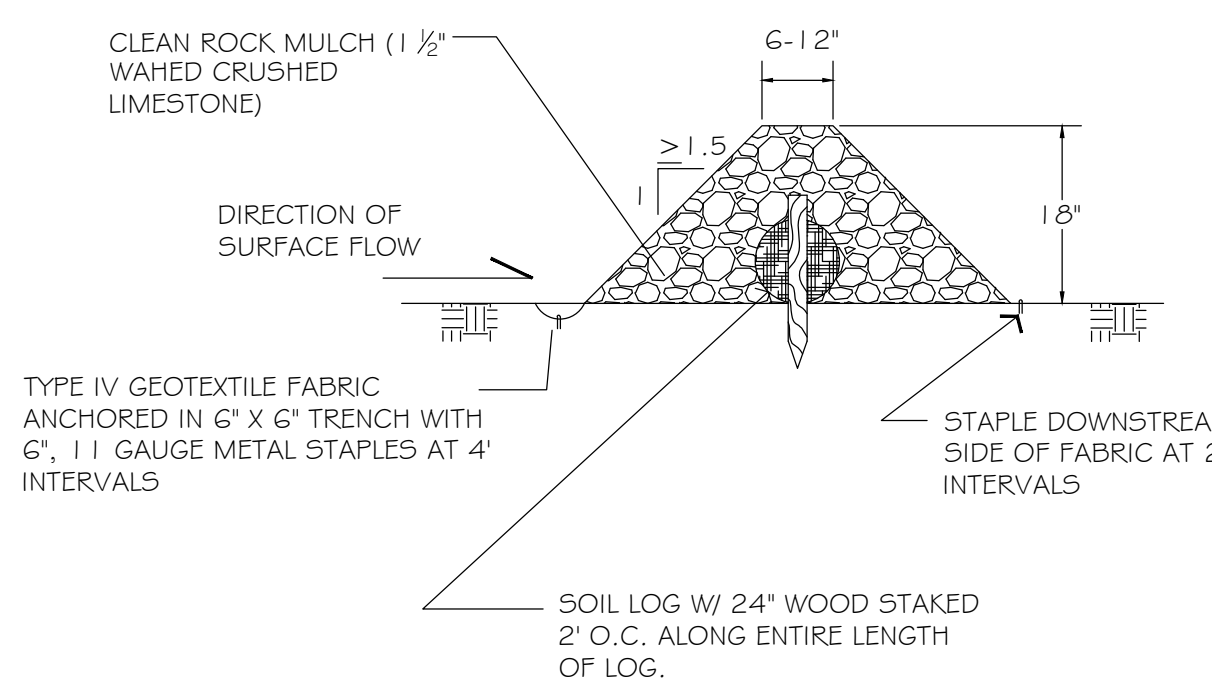
NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: \_\_\_\_\_  
SCALE: GRAPHIC  
PROJ. NO.: 17968  
DATE: 09JAN2018  
SHEET: **SWP3**

I. ROCK WEEPER @ MINIMAL WATER FLOWS



II. BIO WEEPER @ CONCENTRATED FLOWS



DITCH CHECKS, ROCK WEEPERS, & ROCK BIO WEEPERS  
EROSION CONTROL

Channel Erosion Mat  
(1053)

Wisconsin Department of Natural Resources  
Conservation Practice Standard

I. Definition

A protective soil cover of straw, wood, coconut fiber or other suitable plant residue, or plastic fibers formed into a mat, usually with a plastic or biodegradable mesh on one or both sides. Erosion mats are rolled products available in many varieties and combinations of materials and with varying life spans.

II. Purpose

The purpose of this practice is to protect the channel from erosion or act as turf reinforcement during and after the establishment of grass or other vegetation in a channel. This practice applies to both Erosion Control Revegetative Mats (ECRM) and Turf-Reinforcement Mats (TRM).

III. Conditions Where Practice Applies

This standard applies where runoff channelizes in intermittent flow and vegetation is to be established. Some products may have limited applicability in projects adjacent to navigable waters.

IV. Federal, State, and Local Laws

Users of this standard shall be aware of applicable federal, state, and local laws, rules, regulations, or permit requirements governing the use and placement of erosion mat. This standard does not contain the text of federal, state, or local laws.

V. Criteria

This section establishes the minimum standards for design, installation and performance requirements. To complete the shear calculations, a 2 year, 24 hour storm event shall be used to calculate depth of flows for an ECRM. For using a TRM, use the depth of flow corresponding to the maximum design capacity of the channel.

Only mats listed in the Wisconsin Department of Transportation (WisDOT) Erosion Control Product Acceptability List (PAL) will be accepted for use in this standard.

To differentiate applications WisDOT organizes erosion mats into three classes of mats, which are further broken down into various Types.

A. Class I - A short-term duration (minimum of 6 months), light duty, organic ECRM with plastic or biodegradable netting.

1. Type A - Only suitable for slope applications, not channel applications.  
2. Type B - Double netted product for use in channels where the calculated (design) shear stress is 1.5 lbs/ft<sup>2</sup> or less.

B. Class II - A long-term duration (three years or greater), organic ECRM.

1. Type A - Jute fiber only for use in channels to reinforce soil.  
2. Type B - For use in channels where the calculated (design) shear stress is 2.0 lbs/ft<sup>2</sup> or less. Made with plastic or biodegradable mat.  
3. Type C - A woven mat of 100% organic material for use in channels where the calculated (design) shear stress is 2.0 lbs/ft<sup>2</sup> or less. Applicable

Conservation Practice Standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your local DNR office or the Standards Oversight Council office in Madison, WI 53706.

\*Words in the standard that are shown in italics are described in X. Definitions. The words are italicized the first time they are used in the text.

for use in environmentally sensitive areas where plastic netting is inappropriate.

C. Class III - A permanent 100% synthetic ECRM or TRM. Class I, Type B erosion mat or Class II, Type B or C erosion mat must be placed over a soil filled TRM.

1. Type A - An ECRM for use in channels where the calculated (design) shear stress of 2.0 lbs/ft<sup>2</sup> or less.  
2. Type B - A TRM for use in channels where the calculated (design) shear stress of 2.0 lbs/ft<sup>2</sup> or less.  
3. Type C - A TRM for use in channels where the calculated (design) shear stress of 3.5 lbs/ft<sup>2</sup> or less.  
4. Type D - A TRM for use in channels where the calculated (design) shear stress of 5.0 lbs/ft<sup>2</sup> or less.

D. Installation

1. ECRM shall be installed after all topsoiling, fertilizing, liming, and seeding is complete.  
2. Erosion mats shall extend for whichever is greater: upslope one-foot minimum vertically from the ditch bottom or 6 inches higher than the design flow depth.  
3. The mat shall be in firm and continuous contact with the soil. It shall be anchored, overlapped, staked and anchored per the manufacturer's recommendations.  
4. TRM shall be installed in conjunction with the topsoiling operations and shall be followed by ECRM installation.  
5. At time of installation, document the manufacturer and mat type by saving material labels and manufacturer's installation instructions. Retain this documentation until the site is stabilized.

VI. Considerations

A. Erosion mat shall be selected so that they last long enough for the grass or other vegetation to become densely established.  
B. Consider using Class II, Type C mats adjacent to waterways where trapping small animals is to be avoided.  
C. Class III TRM may be appropriate as a replacement for riprap in a channel liner. Check the shear stress criteria for the channel to determine mat applicability.  
D. Once a gully has formed in a channel, it is difficult to stabilize due to loss of soil structure. Even when the gully is filled with topsoil and reseeded, the soil has a tendency to dislodge in the same pattern. If gully formation continues to be a problem, the design should be reevaluated, including other mat classes or riprap.  
E. It may be difficult to establish permanent vegetation and adequate erosion protection in a channel with continuous flow. Consider riprap or planting wetland species with an ECRM.  
F. Documentation of materials used, monitoring logs, project diary, and weekly inspection forms including erosion and stormwater management plans, should be provided to the authority charged with long term maintenance of the site.  
G. Channel cross sections may be parabolic, v-shaped or trapezoidal. The use of "V" channels is generally discouraged due to erosion problems experienced.  
H. To help determine the appropriate channel liner, designers can refer to the design matrix in the back of the WisDOT PAL. However, for channels not conforming to the typical sections shown in the channel matrix or having a depth of flow greater than 6 inches (150 mm), the designer will need to design

for an appropriate channel liner. One way to do this is to use the "reactive force" method presented in FHWA's Hydraulic Engineering Circular (HEC) No. 15. This method requires that the calculated maximum shear stress of a channel is not to exceed the permissible shear stress of the channel liner. To use this method, permissible shear stress values are listed next to each device listed in the channel matrix.

VII. Plans and Specifications

A. Plans and specifications for installing erosion mat shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. The plans and specifications shall address the following:  
1. Location of erosion mat  
2. Installation sequence  
3. Material specification conforming to standard  
B. All plans, standard detail drawings, or specifications shall include schedule for installation, inspection, and maintenance. The responsible party shall be identified.

VIII. Operation and Maintenance

A. Erosion mats shall at a minimum be inspected weekly and within 24 hours after every precipitation event that produces 0.5 inches of rain or more during a 24-hour period.  
B. If there are signs of filling under the mat, install more staples or more frequent anchoring trenches. If filling becomes severe enough to prevent establishment of vegetation, remove the section of mat where the damage has occurred. Fill the eroded area with topsoil, compact, reseed and replace the section of mat, trenching and overlapping ends per manufacturer's recommendations. Additional staking is recommended where filling was filled.  
C. If the reinforcing plastic netting has separated from the mat, remove the plastic and if necessary replace the mat.

D. Maintenance shall be completed as soon as possible with consideration to site conditions.

IX. References

WisDOT "Erosion Control Product Acceptability List" is available online at <http://www.dot.wisconsin.gov/business/engrtrv/pal.htm>.

X. Definitions

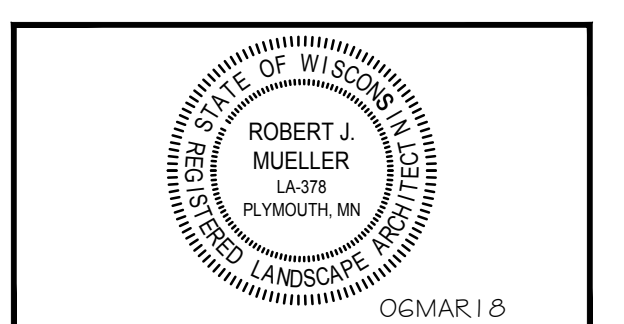
Channel Erosion: The deepening and widening of a channel due to soil loss caused by flowing water. As rills become larger and flows begin to concentrate, soil detachment occurs primarily as a result of shear.

Erosion Control Revegetative Mats (ECRM) (II): Erosion control revegetative mats are designed to be placed on top of soil.

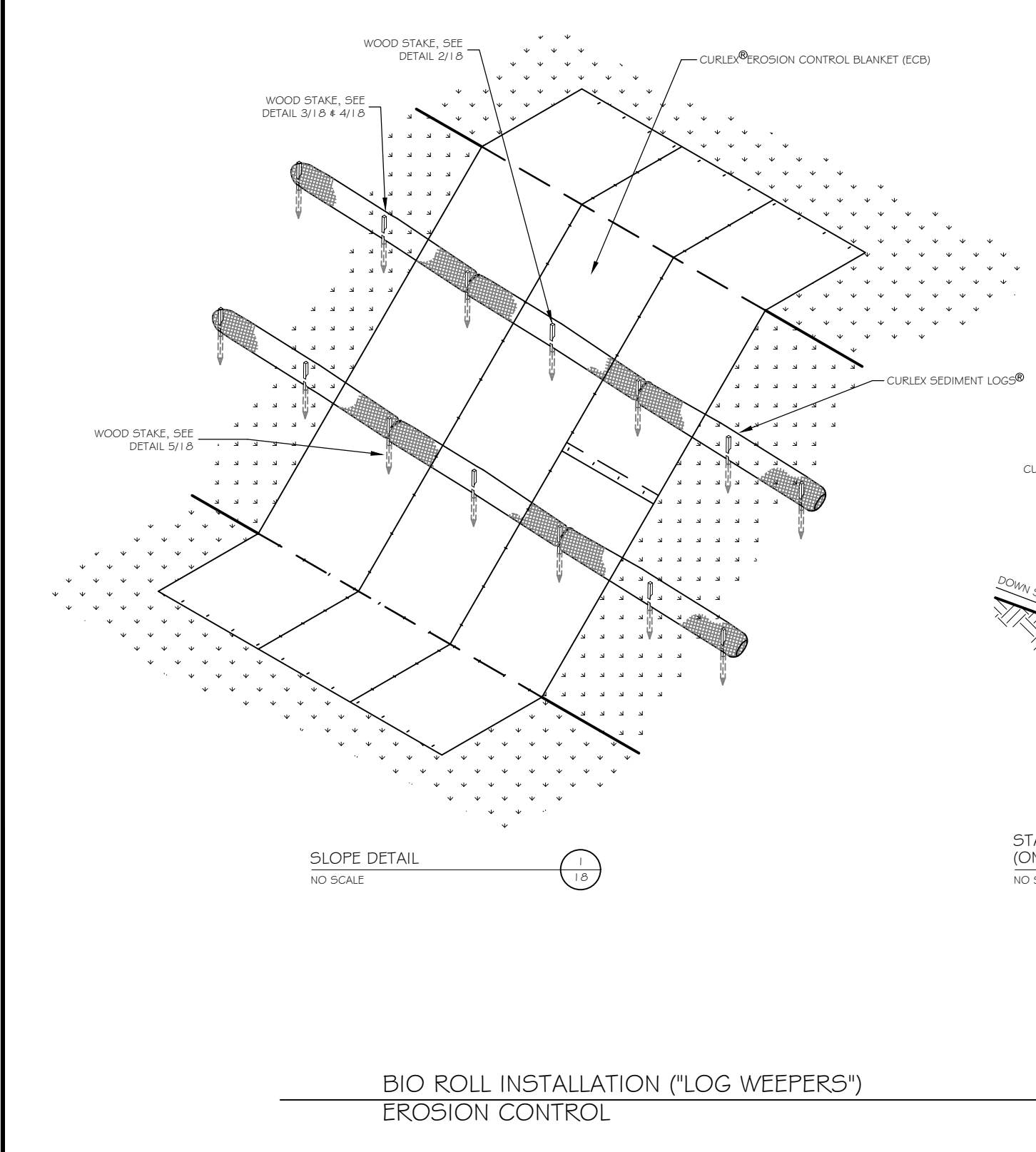
Turf-Reinforcement Mats (TRM) (II): Turf-reinforcement mats are permanent devices constructed from various types of synthetic materials and buried below the surface to help stabilize the soil. TRMs must be used in conjunction with an ECRM or an approved soil stabilizer Type A (as classified in the WisDOT PAL).



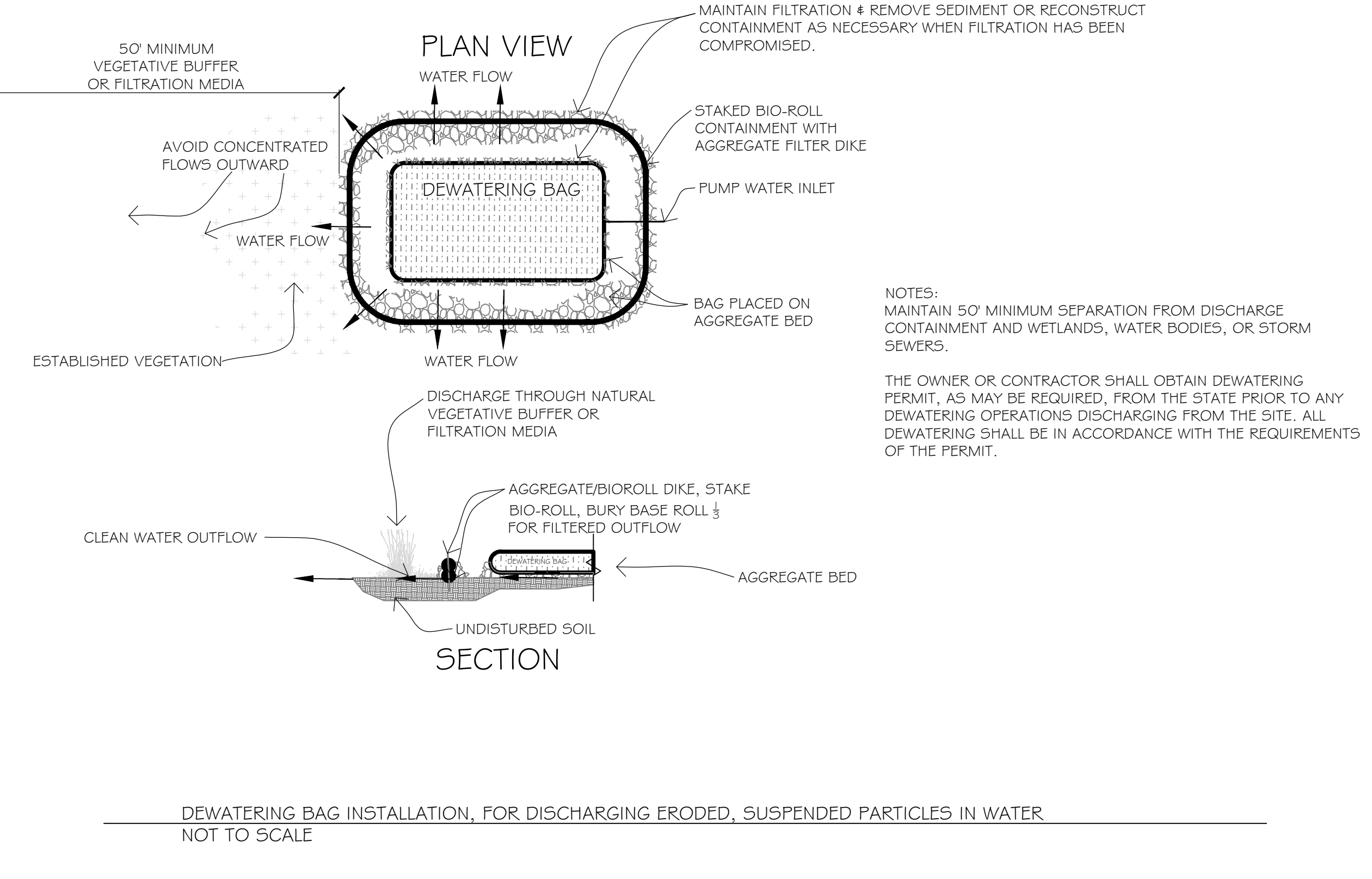
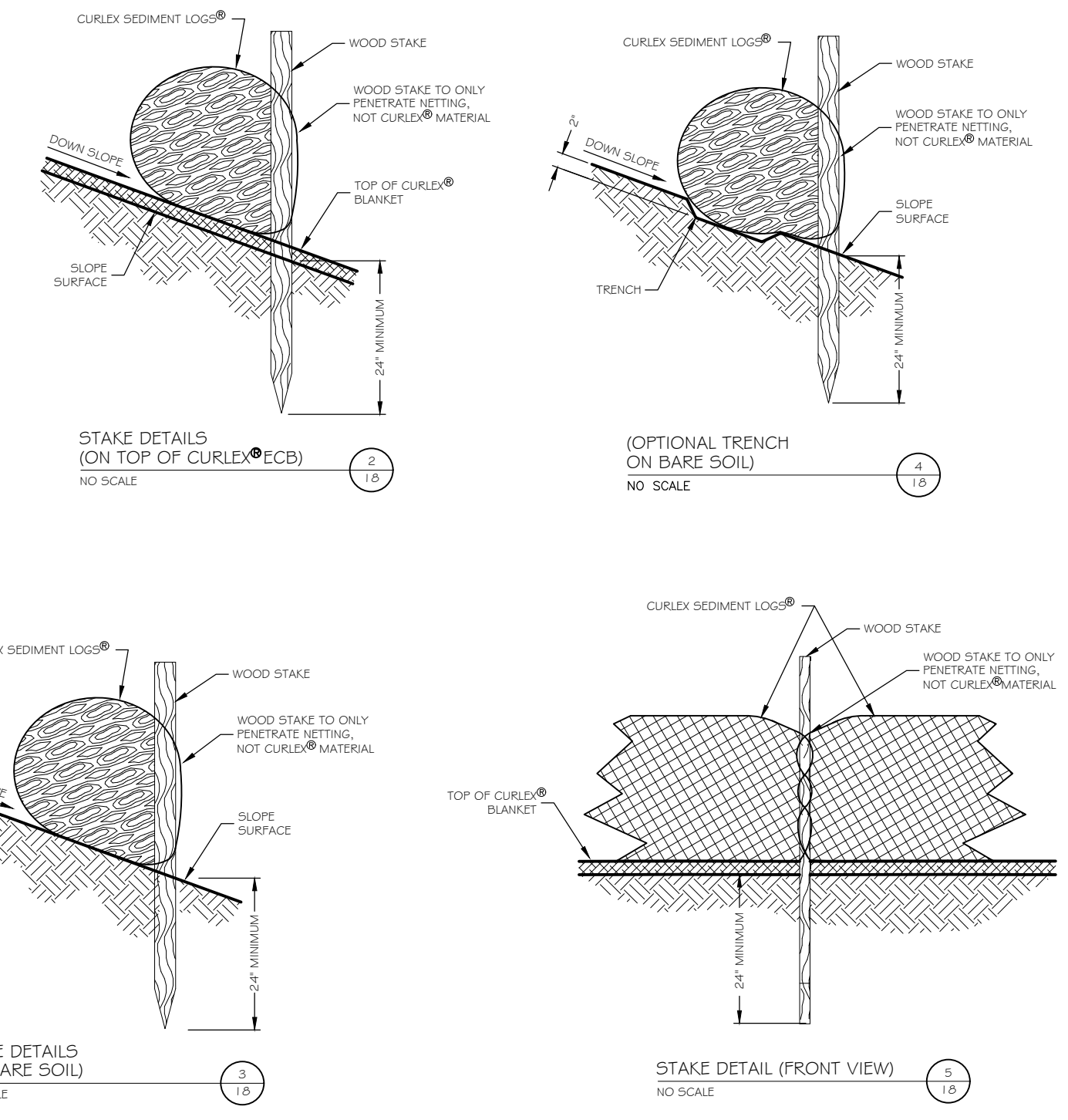
KWIK TRIP, Inc.  
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NOTE: SEDIMENT LOGS SHALL BE "CURLX" BY AMERICAN EXCELSIOR COMPANY  
[www.americanexcelsior.com/erosioncontrol/](http://www.americanexcelsior.com/erosioncontrol/)  
OR APPROVED EQUAL



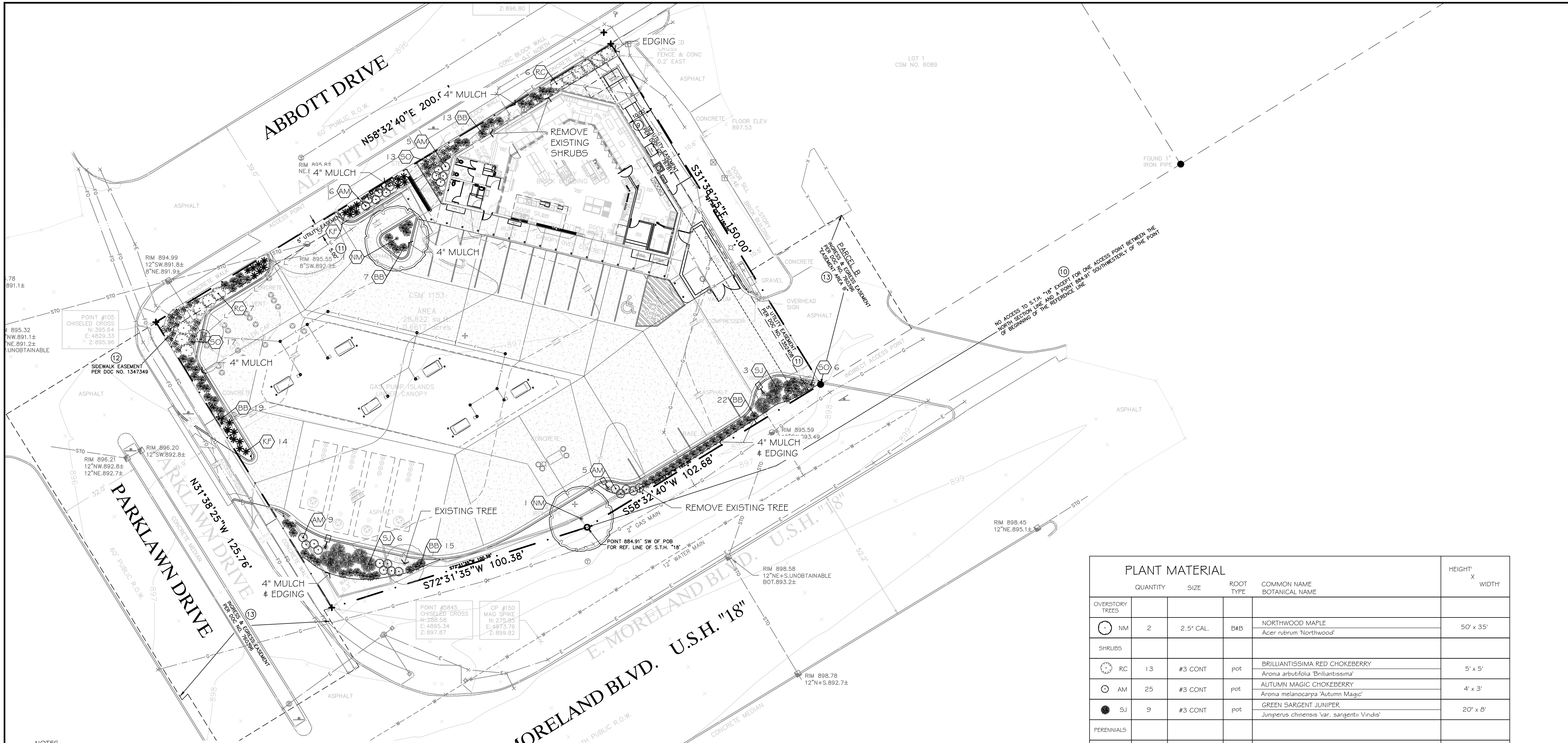
BIO ROLL INSTALLATION ("LOG WEEPERS")  
EROSION CONTROL



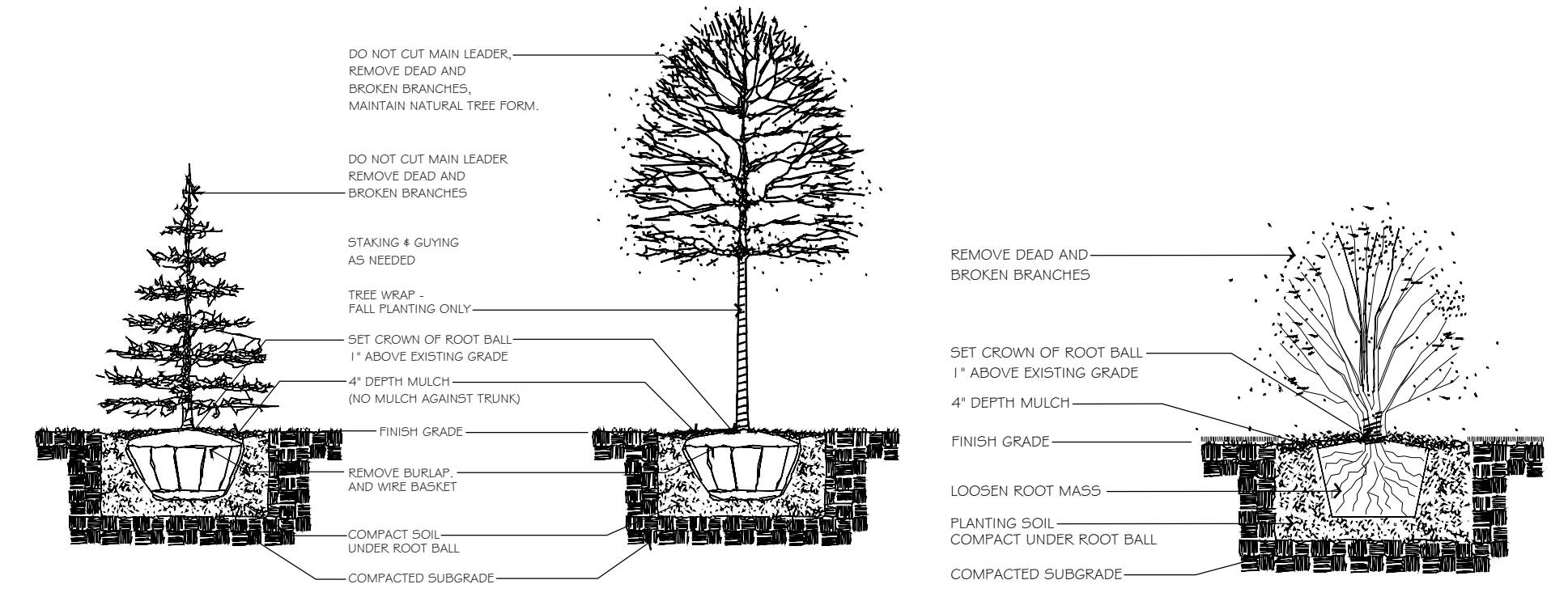
EROSION CONTROL DETAILS  
CONVENIENCE STORE 968  
2302 E MORELAND BLVD  
WAUKESHA, WISCONSIN

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS
DRAWN BY:		GRAPHIC
SCALE:		17968
PROJ. NO.:		09JAN2018
DATE:		SWP4
SHEET:		

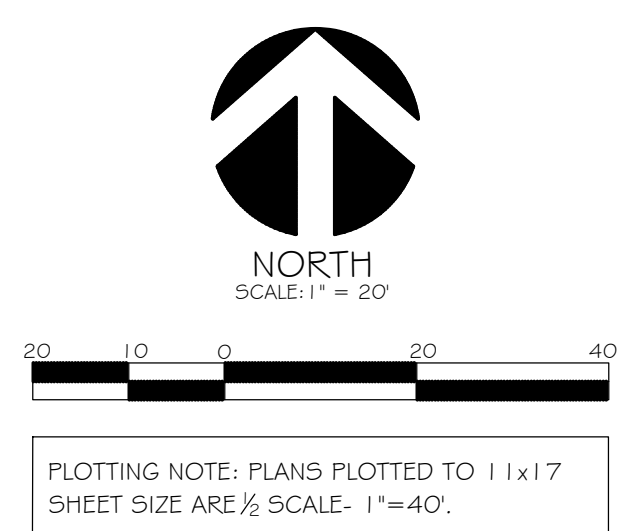
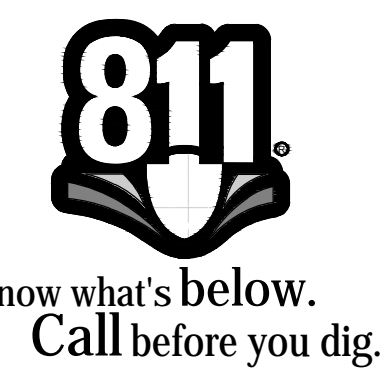
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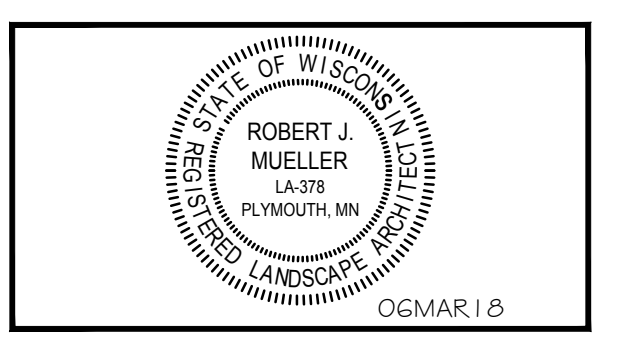
- NOTES:**
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR PLANTING IN ALL R.O.W.
  - LANDSCAPE CONTRACTOR SHALL VERIFY ALL UTILITIES WHICH MAY AFFECT HIS WORK.
  - LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS AT SITE AND COMPLETE HIS WORK PER OWNERS CONSTRUCTION SCHEDULE.
  - ALL PLANT MATERIALS SHALL BE GUARANTEED ONE (1) FULL YEAR UPON TOTAL COMPLETION AND ACCEPTANCE BY OWNER, WITH ONE TIME REPLACEMENT AT APPROPRIATE TIME OR UPON REQUEST OF OWNER.
  - REPLACEMENT TOPSOIL SHALL BE CLEAN, FREE OF STONES, WEEDS, AND OTHER UNDESIRABLE DEBRIS.
  - PLANTING SOIL MIX (INCIDENTAL COST ITEM)
    1. MIX 1 LB. 5-20-20 COMMERCIAL FERTILIZER PER CU. YD. TOPSOIL
    2. THOROUGHLY MIX 1-PART SAND AND 1-PART PEAT MOSS WITH 5-PARTS FERTILIZER AND TOP SOIL.
  - USE PLANTING SOIL AT ALL LOCATIONS PER DETAILS THIS SHEET.
  - LANDSCAPE CONTRACTOR SHALL VERIFY TOPSOIL DEPTH AND NOTIFY OWNER OF ANY DEFICIENCY.
  - SOD SHALL BE CULTURED WITH PREDOMINATELY KENTUCKY BLUEGRASS SEED OF RECENT DISEASE RESISTANT INTRODUCTIONS. NO GUARANTEE ON SOD EXCEPT ANY SOD NOT SATISFACTORY AT TIME OF COMPLETION INSPECTION SHALL BE PROMPTLY REPLACED PRIOR TO COMPLETION OF JOB. STAKE SOD ON SLOPES 3:1 AND GREATER.
  - WHERE EXISTING CONCRETE/ ASPHALT AREAS ARE TO BE REPLACED WITH LANDSCAPING, PROVISIONS SHOULD BE TAKEN TO COORDINATE EXCAVATION OF SUBSOIL TO A DEPTH OF 2' WITH GRADING CONTRACTOR. REPLACE WITH COMPACTED TOPSOIL. ALL AREAS TO BE LANDSCAPED AND SODDED SHALL BE GRADED SMOOTH AND EVEN.
  - LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SODDING ALL AREAS WHICH ARE DISTURBED BY CONSTRUCTION INCLUDING ALL R.O.W. AND ADJACENT PROPERTIES.
  - LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING BLANKET ON ALL SEEDED AREAS THAT ARE SLOPED. MULCH APPLICATION FOR ALL OTHER SEEDED AREAS SHALL BE EITHER HYDROMULCH OR DISKED STRAW DEPENDING ON SEED TYPE, APPLICATION, AND OWNER REQUEST.
  - LANDSCAPE CONTRACTOR TO INSTALL 'VALLEY VIEW', 'BLACK DIAMOND' EDGING AROUND ALL PLANTING BEDS AS SHOWN ON THIS PLAN.
  - ALL MULCH TO BE FINELY SHREDDED HARDWOOD ORGANIC BARK MULCH. NO DYED MULCHES. INSTALL 4" DEPTH. NO FILTER FABRIC BENEATH ORGANIC MULCHES. NO EDGING AROUND ALL TREES OUTSIDE SHRUB BEDS.
  - IF SPECIFIED: ALL GRAVEL MULCH SHALL BE 1" DIA. WASHED 'RIVER ROCK'. INSTALL 4" DEPTH WITH APPROVED WEED FABRIC BARRIER IF INDICATED PLAN.
  - LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR IRRIGATION SYSTEM INSTALLATION PER SHEET 11. DESIGN SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION. IRRIGATION DESIGN SHOULD ENCOMPASS ALL LANDSCAPE AREAS WITH SOD AND/OR PLANTINGS, FROM CURB TO CURB. R.O.W. SHOULD BE IRRIGATED FROM SPRINKLER HEADS LOCATED WITHIN PROPERTY BOUNDARY. CARE SHOULD BE TAKEN IN VICINITY OF ALL WALKS AND DRIVES TO MINIMIZE OVER SPRAY. COORDINATE INSTALLATION OF ALL PVC SLEEVE UNDER DRIVE AREAS WITH GENERAL CONTRACTOR.
  - LANDSCAPE CONTRACTOR SHALL CLEAN ALL PAVEMENT AREAS AFTER ALL LANDSCAPE INSTALLATION IS COMPLETE AND ACCEPTED BY OWNER AND DAILY AS DEEMED NECESSARY BY THE CITY.
  - GENERAL CONTRACTOR TO SWEEP PAVEMENT AREAS PRIOR TO TURN OVER TO OWNER.



PLANT MATERIAL					
	QUANTITY	SIZE	ROOT TYPE	COMMON NAME BOTANICAL NAME	HEIGHT X WIDTH
OVERSTORY TREES					
⊙ NM	2	2.5" CAL.	B&B	NORTHWOOD MAPLE <i>Acer rubrum 'Northwood'</i>	50' x 35'
SHRUBS					
⊙ RC	13	#3 CONT	pot	BRILLIANTISSIMA RED CHOKEBERRY <i>Aronia arbutifolia 'Brilliantissima'</i>	5' x 5'
⊙ AM	25	#3 CONT	pot	AUTUMN MAGIC CHOKEBERRY <i>Aronia melanocarpa 'Autumn Magic'</i>	4' x 3'
● SJ	9	#3 CONT	pot	GREEN SARGENT JUNIPER <i>Juniperus chinensis 'var. sargentii Vireida'</i>	20' x 8'
PERENNIALS					
⊙ SO	36	#1 CONT	pot	STELLA DE ORO DAYLILY <i>Heemerocallis 'Stella de Oro'</i>	2' x 3'
GRASSES					
● BB	76	#1 CONT	pot	BIG BLUESTEM <i>Andropogon gerardi</i>	5' x 6'
● KF	23	#1 CONT	pot	KARL FORESTER FEATHER REED GRASS <i>Calamagrostis x acutiflora 'Karl Forester'</i>	4' x 30'
EDGING - 160 LF					
MULCH - 30 CY					
SOD - REPAIR AS NEEDED					



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**LANDSCAPE PLAN**

**CONVENIENCE STORE 968**

**2302 E MORELAND BLVD  
WAUKESHA, WISCONSIN**

NO.	DATE	DESCRIPTION
-	06MAR18	CITY COMMENTS

DRAWN BY: \_\_\_\_\_ SCALE: GRAPHIC  
 PROJ. NO.: 17968  
 DATE: 09JAN2018  
 SHEET: \_\_\_\_\_

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REVISED 17-052 RIV.C.N.