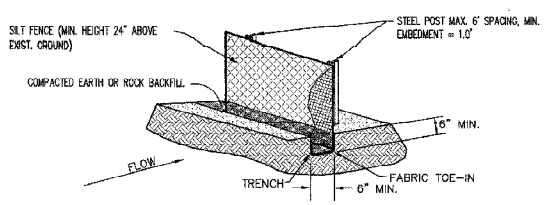
## PLAN OF RECORD

This record drawing is a compilation of the sealed engineering drawing for permit and construction, by others; modified based on a field observation by BIG RED DOG. The information shown on the record drawings that was provided for permit and construction, by others not associated with the record drawing engineer, cannot be verified for accuracy or completeness. Review is for general conformance with construction documents and on-site improvements. The original approved sealed drawings are on file at the offices of the City of Rockwall.

Therefore, with the exceptions noted and clouded, this "Plan of Record" is true and correct to the best of my knowledge and was prepared under my supervision.

STATE OF TEXAS
GRAYSON K. HUGHES
114327
LICENSED
PROFESSIONAL ENGINEER

September 28, 2018




SILT FENCE
N.T.S.

SILT FENCE NOTES:

1. DESCRIPTION: SILT FENCE CONSISTS OF GEOTEXTILE FABRIC SUPPORTED BY WIRE MESH STRETCHED BETWEEN METAL SUPPORT POSTS. THE FABRIC IS EXTENDED BELOW GRADE INTO AN EMBEDMENT TRENCH. SILT FENCE IS TYPICALLY LOCATED DOWNSTREAM OF DISTURBED AREAS TO INTERCEPT SHEET FLOW RUNOFF. SILT FENCE PROMOTES BOTH FILTRATION AND TIME FOR SEDIMENT TO SETTLE OUT OF RUNOFF BY REDUCING RUNOFF VELOCITY.

2. PRIMARY USE: SILT FENCE IS TYPICALLY USED FOR PERIMETER CONTROL ON THE DOWNSTREAM SIDE OF DISTURBED AREAS. SILT FENCE SHOULD ONLY BE USED FOR NON-CONCENTRATED, SHEET FLOW CONDITIONS.

3. APPLICATIONS: SILT FENCE IS AN ECONOMICAL MEANS TO TREAT OVERLAND, NON-CONCENTRATED FLOWS FOR ALL TYPES OF PROJECTS WHEN PROPERLY INSTALLED AND MAINTAINED. SILT FENCE IS MOST EFFECTIVE WITH COARSE TO SILTY TYPE SOILS. CAUTION SHOULD BE USED IN INSTALLING SILT FENCE IN CLAYEY SOIL TYPES DUE TO THE POSSIBILITY OF CLOGGING THE GEOTEXTILE MATERIAL.

4. DESIGN CRITERIA: CONSTRUCT FENCE AT CONSTANT ELEVATION WHERE POSSIBLE. DO NOT EXCEED 0.25 ACRE DRAINAGE AREA PER 100 LF. OF SILT FENCE. DO NOT EXCEED 1 CFS FLOW TO ANY 20 LF. SECTION OF SILT FENCE. MAXIMUM DISTANCE OF FLOW TO SILT FENCE SHALL BE 200 LF. IF THE SLOPE FLOWING TOWARD THE SILT FENCE EXCEEDS 10%, MAXIMUM DISTANCE OF FLOW SHALL BE 50 LF. MAXIMUM SLOPE ADJACENT TO FENCE SHALL BE 2:1. IF SOIL OR LESS OF SOIL BY WEIGHT PASSES THE US STANDARD SIEVE NO 200, SELECT THE APPARENT OPENING SIZE TO RETAIN 85% OF SOIL. IF 85% OR MORE OF SOIL BY WEIGHT PASSES THE US STANDARD SIEVE NO 200, SILT FENCES MUST BE APPROVED FOR USE BY GEOTECHNICAL ENGINEER OR SOILS SCIENTIST. SILT FENCE PLACEMENT MUST MAINTAIN ROOM FOR THE MAINTENANCE OF SILT FENCE. THE ENDS OF THE SILT FENCE SHOULD BE TURNED UPSTREAM. FENCE SHALL BE SECURELY FASTENED TO SUPPORT POSTS. ENDS OF FABRIC SHOULD BE OVERLAPPED A MINIMUM OF THREE FEET. OVERLAPS SHOULD BE SECURELY FASTENED.

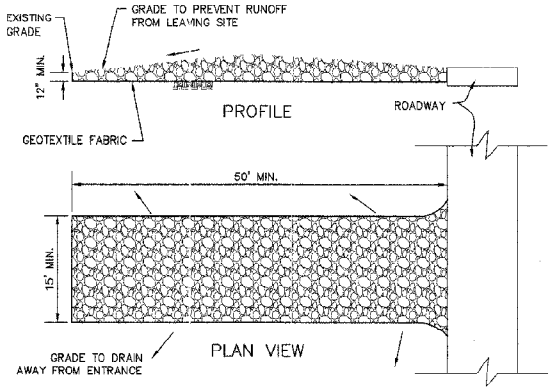
5. GEOTEXTILE MINIMUM CRITERIA: TENSILE STRENGTH ASTM D4632 90 LBS. PUNCTURE RATING ASTM D4833 60 LBS. MULLEN BURST RATING ASTM D3786 280 PSI. APPARENT OPENING SIZE ASTM D4751 70 (MAX.) TO 100 (MIN.). ULTRAVIOLET RESISTANCE ASTM D4355 MIN. 70 PERCENT.

6. POST MINIMUM CRITERIA: POST SHALL BE GALVANIZED STEEL T-SECTION, 1.3 POUNDS PER LINEAR FOOT MIN., 4 LF. MIN.

7. FENCE SUPPORT MINIMUM CRITERIA: FENCE SHALL BE SUPPORTED BY 14 GA. GALVANIZED STEEL WIRE FABRIC WITH 4" WIRE SPACING, STANDARD 2" X 2" CHAIN LINK FENCE FABRIC, 12 GAUGE HOG WIRE, OR OTHER EQUAL WELDED OR WOVEN STEEL FABRIC.

8. LIMITATIONS: SOME PONDING IS LIKELY TO OCCUR ON THE UPSTREAM SIDE OF THE SILT FENCE. SILT FENCES ARE NOT INTENDED FOR USE IN AREAS OF CONCENTRATED FLOW. SILT FENCES REQUIRE CONDITIONS WHICH ALLOW FOR TOE-IN TRENCH. SILT FENCE CAN INTERFERE WITH CONSTRUCTION OPERATIONS IF SCHEDULING AND/OR ACCESS IS NOT CONSIDERED. SILT FENCE CAN FAIL DURING HEAVY STORM FLOWS. SILT FENCE MUST REMAIN IN PLACE UNTIL THE DISTURBED AREA IS COMPLETELY STABILIZED.

9. MAINTENANCE: SILT FENCE SHOULD BE INSPECTED REGULARLY. MINIMUM INSPECTION REQUIREMENTS ARE LISTED IN THE TPDES TXR 150000 CONSTRUCTION GENERAL PERMIT. INSPECTIONS MUST CONSIDER SEDIMENT BUILD-UP, UNDERCUTTING, SAGS, AND OTHER FAILURES. AT A MINIMUM, SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF THE FENCE HEIGHT. INSPECTION SHOULD ALSO CONSIDER THE USE OF ADDITIONAL BMPS OR USE OF OTHER BMPS IN LIEU OF SILT FENCE IF FENCE PROVES TO BE INEFFECTIVE.




STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. DESCRIPTION: A CONSTRUCTION ENTRANCE IS STABILIZED WITH ROCK PLACED OVER GEOTEXTILE FABRIC. A CONSTRUCTION ENTRANCE FACILITATES REMOVAL OF SEDIMENT AND OTHER DEBRIS FROM CONSTRUCTION EQUIPMENT PRIOR TO EXITING THE CONSTRUCTION SITE. THE CONSTRUCTION ENTRANCE PREVENTS MATERIAL FROM LEAVING THE CONSTRUCTION SITE AND ACCUMULATING ON ROADWAY.

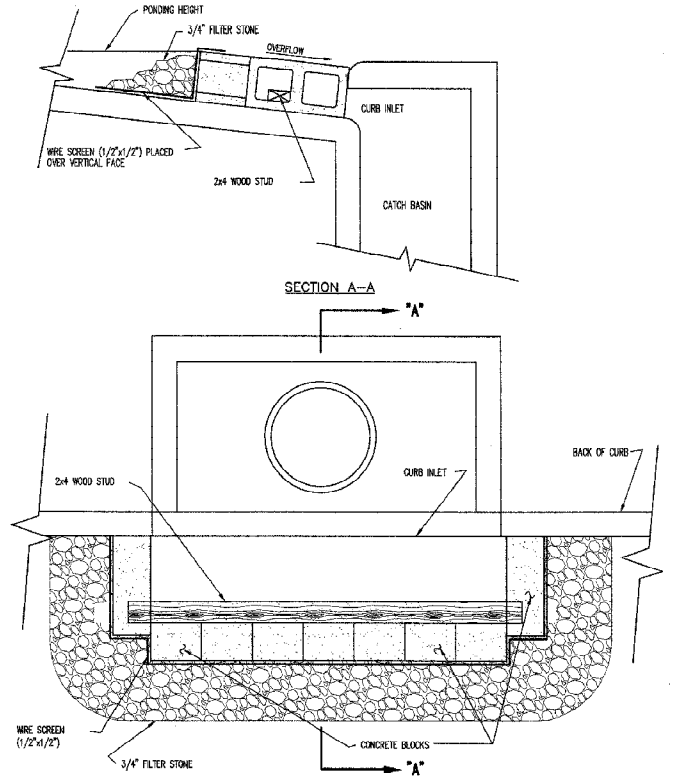
2. PRIMARY USE: CONSTRUCTION ENTRANCES ARE USED FOR ALL SITES WHERE VEHICLES ENTER AND LEAVE THE SITE. IT REDUCES SEDIMENT ACCUMULATION ON ROADWAYS. IT ALSO LIMITS TRAFFIC ROUTES TO REDUCE THE TOTAL DISTURBANCE.

3. APPLICATIONS: CONSTRUCTION ENTRANCES ARE RECOMMENDED FOR ALL CONSTRUCTION SITES.

4. DESIGN CRITERIA: CONSTRUCT SUCH THAT DRAINAGE ACROSS THE ENTRANCE IS DIRECTED TO A CONTROLLED LOCATION FOR TREATMENT AND REMOVAL OF COLLECTED SEDIMENT. SLOPE ENTRANCE TO RETAIN STORM WATER ON SITE. MINIMUM LENGTH SHALL BE 50'. MINIMUM WIDTH SHALL BE 15'. GEOTEXTILE FABRIC SHALL BE INSTALLED PRIOR TO PLACING STONE. STONE SHALL BE PLACED IN 12" LAYERS. MINIMUM STONE SIZE SHALL BE 3 TO 5 INCH COARSE AGGREGATE (NO CRUSHED CONCRETE ALLOWED). INSTALL BARRIERS AS NECESSARY TO FORCE TRAFFIC TO USE THE CONSTRUCTION ENTRANCE. WHEN NECESSARY VEHICLES SHALL BE CLEANED PRIOR TO LEAVING THE SITE.

5. LIMITATIONS: SELECTION OF CONSTRUCTION ENTRANCE LOCATION IS CRITICAL. IT MUST BE PLACED IN A LOCATION WHICH WILL ENCOURAGE USE AND AVOID RUNOFF LEAVING THE SITE.

6. MAINTENANCE: CONSTRUCTION ENTRANCES SHOULD BE INSPECTED REGULARLY. MINIMUM INSPECTION REQUIREMENTS ARE LISTED IN THE TPDES TXR 150000 CONSTRUCTION GENERAL PERMIT. WHEN SEDIMENT HAS SUBSTANTIALLY CLOGGED THE VOID AREA BETWEEN THE ROCKS, THE AGGREGATE MAT MUST BE CLEANED OR REPLACED. PERIODIC REGRADING AND TOP DRESSING WITH ADDITIONAL STONE MUST BE DONE TO MAINTAIN EFFECTIVENESS.




N.T.S.

CURB INLET PROTECTION

CURB INLET NOTES:

1. DESCRIPTION: A TEMPORARY SEDIMENT CONTROL BARRIER MADE OF FILTER STONE, STANDARD CONCRETE BLOCK, WELDED WIRE FABRIC, HARDWARE FABRIC OR 2x4 STUDS SURROUNDING A STORM DRAIN CURB INLET.

2. PRIMARY USE: CURB INLET PROTECTION IS USED TO REDUCE SEDIMENT REACHING STORM SEWER INLETS.

3. APPLICATIONS: CURB INLET PROTECTION IS USED ON ALL SITES WHERE CURB INLETS ARE SUBJECT TO SEDIMENT FLOWS.

4. DESIGN CRITERIA:
   A. DRAINAGE AREA - 2.0 ACRES OR LESS.
   B. HEIGHT - 6" (MAX.)
   C. A 2" OVERFLOW GAP MUST BE PROVIDED ON ALL CURB INLET PROTECTION DEVICES.
   D. FILTER PORTION OF THE DEVICE MUST EXTEND A MINIMUM OF 12" BEYOND THE END OF THE CURB OPENING ON BOTH ENDS.
   E. FILTER PORTION OF THE DEVICE MUST BE IN CONTACT WITH THE PAVEMENT SURFACE AND IN TIGHT CONTACT WITH THE FACE OF THE CURB AND GUTTER TO PREVENT STORM WATER FROM BYPASSING THE INLET PROTECTION DEVICE.

5. MATERIAL SPECIFICATIONS
   A. CONCRETE BLOCK (IF REQ. BY DETAIL) - ASTM C 139, CONCRETE MASONRY UNIT FOR CONSTRUCTION.
   B. WIRE FABRIC - STANDARD GALVANIZED HARDWARE FABRIC WITH 1/2" BY 1/2" OPENINGS.
   C. FILTER STONE - AGGREGATES SHALL CONSIST OF DURABLE PARTICLES OF CRUSHED STONE, FREE FROM FROZEN MATERIAL OR INJURIOUS AMOUNTS OF SALT, ALKALI, VEGETABLE MATTER OR OTHER MATERIAL EITHER FREE OR AS ADHERENT COATING, AND ITS QUALITY SHALL BE REASONABLY UNIFORM THROUGHOUT. IT SHALL HAVE A WEAR OF NOT MORE THAN 40 PERCENT WHEN TESTED IN ACCORDANCE WITH TxDOT TEST METHOD Tex-410-A. THE MATERIAL SHALL BE WASHED AND SCREENED AND NOT CONTAIN MORE THAN 1 PERCENT BY WEIGHT ORGANIC MATTER, CLAYS OR LOAM AND NOT MORE THAN FIVE PERCENT BY WEIGHT OF ANY ONE OF OR COMBINATION OF SLATE, SHALE, SCHIST, OR SOFT PARTICLES OF SANDSTONE. THE GRADATION SHALL BE:

| | |
|---|---|
| PASSING 1-1/2 in. SIEVE | 100% |
| RETAINED ON 3/4 in. SIEVE | 100% |

   D. WIRE MESH (IF REQ. BY DETAIL)- WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A82 AND A185.

6. LIMITATIONS: SOME PONDING IS LIKELY TO OCCUR ON THE UPSTREAM SIDE OF THE INLET PROTECTION. INLET PROTECTION MUST REMAIN IN PLACE UNTIL THE DISTURBED AREA IS COMPLETELY STABILIZED. SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS. ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.

7. MAINTENANCE: CURB INLET PROTECTION SHOULD BE INSPECTED REGULARLY. MINIMUM INSPECTION REQUIREMENTS ARE LISTED IN THE TPDES TXR 150000 CONSTRUCTION GENERAL PERMIT. INSPECTIONS MUST CONSIDER SEDIMENT BUILD-UP AND OTHER FAILURES. AT A MINIMUM, SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF THE BARRIER HEIGHT. INSPECTION SHOULD ALSO CONSIDER THE USE OF ADDITIONAL BMPS IF CURB INLET PROTECTION PROVES TO BE INEFFECTIVE.

SITE BENCHMARK:
CUT "X" ON TOP OF NORTH CURBLINE OF EXISTING CONCRETE DRIVE APPROX. 45 FEET SOUTH OF SOUTH BUILDING WALL OF GALAXY RANCH PRIVATE SCHOOL AND 148 FEET +/- EAST OF EXISTING EAST CURBLINE OF T.L. TOWNSEND LANE.
ELEVATION = 554.56

STATE OF TEXAS
C. MICHAEL DANIEL
82457
LICENSED
PROFESSIONAL ENGINEER

5-6-11

| REVISIONS | DATE |
|---|---|
| | |

NDM
NATHAN D. MAIER
CONSULTING ENGINEERS, INC.
TEXAS FIRM REGISTRATION NO. F-1404
WWW.NDMCE.COM
Two Northpark 8080 Park Lane Suite 600
Dallas, Texas 75231 214.739.4741

ENGINEER:
NATHAN D. MAIER CONSULTING ENGINEERS, INC.
CONTACT: MIKE DANIEL (214/739-4741

# EROSION CONTROL DETAILS

LARSEN RETAIL DEVELOPMENT
3.154 ACRE TRACT - LARSEN SCHOOL ADDITION
ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET NO. 16/16

| DESIGN | DRAWN | SCALE | DATE | NOTES | JOB NUMBER |
|---|---|---|---|---|---|
| NDMCE | NDMCE | N/A | 2011-05-06 | | 08-04-038.A |