

Sample Plan

STANDARD PLAN SHEETS ----- NARRATIVE

References:

Design Scenes: Chapter 3 - Details

Standard Plans Manual

Miscellaneous: <http://standardplans.dot.state.mn.us/>

General Information:

All Standard Plan Sheets that are applicable to the project should be included in the Plan. If nothing on a plan sheet is relevant but is part of a series, it is not necessary to include it. The exception would be the ADA sheets - always include all 5 sheets.

Check the CAD directory dates on Standard Plan sheets against the Standard Plans Manual's dates to ensure having the most current sheet.

When revisions are made on standard plan sheets, the approved signature block and the sheet reference number in the lower right corner of the sheet must be crossed out and the word "Modified" added. The Engineer's signature must also be added. The Modified Standard Plan sheet should still be in the same numerical order. Also bold any modifications. If room permits, note the modification and put a double box around it. See Design Scene for an example.

Filling in blanks with required information and relevant sheet cross reference numbers does not count as a modification. Crossing out parts of the plan sheet is a modification. It is not necessary to cross out details on the plan sheet that do not apply to the Plan. Taking parts of standard plan sheets and creating a separate detail sheet should be discouraged.

Questions regarding any Standard Plan sheets should be addressed to the Standards Office in Central Office.

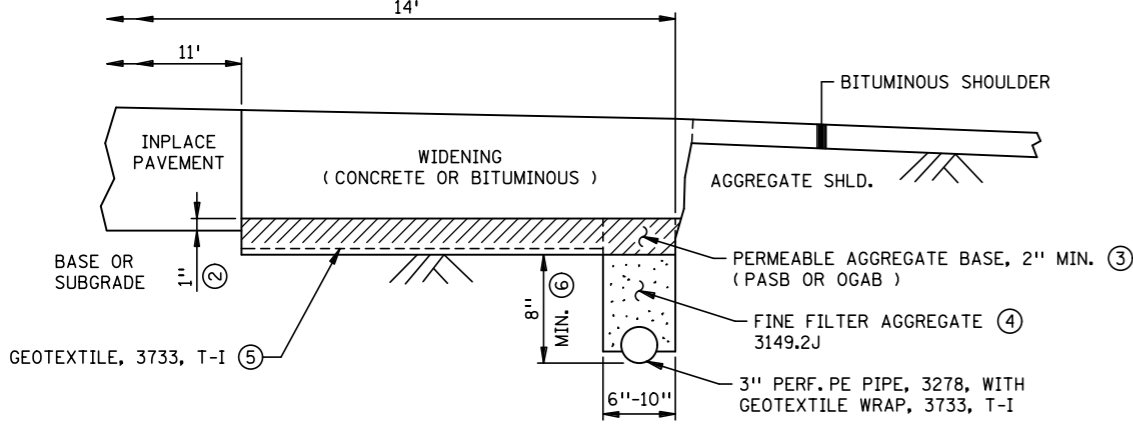
Include Standard Staking Sheets for any projects that involve grading.

Sample Plan

STANDARD PLAN SHEETS ----- CHECKLIST

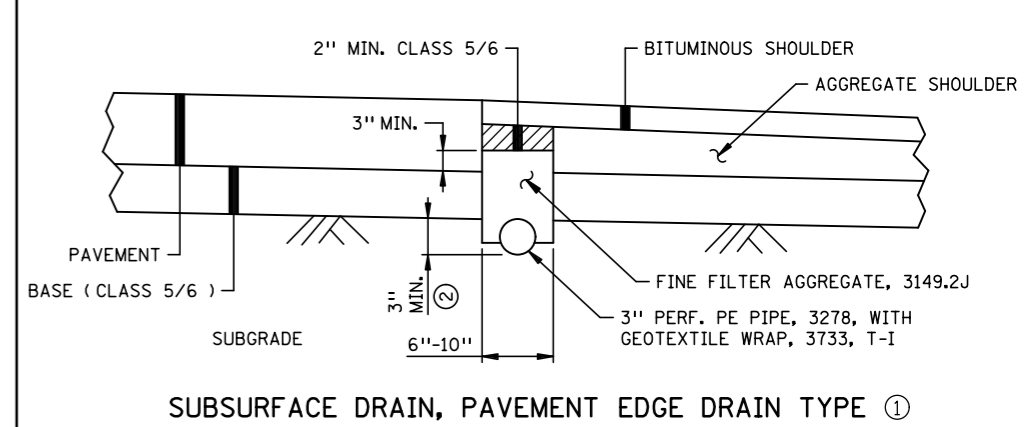
- ___ 1. All applicable Standard Plan Sheets Included

DISTRICT #: METRO
 USER NAME: spsndplan
 PATH & FILENAME: Projects\DM_R0S\Non_Project\Design\SamplePlan\Eng\Tsh\stndplan.dgn
 REVISION DATE 07/15/15
 PLOTTED/REVISED: 26-JAN-2017 08:23
 FILE NAME: spsndplan



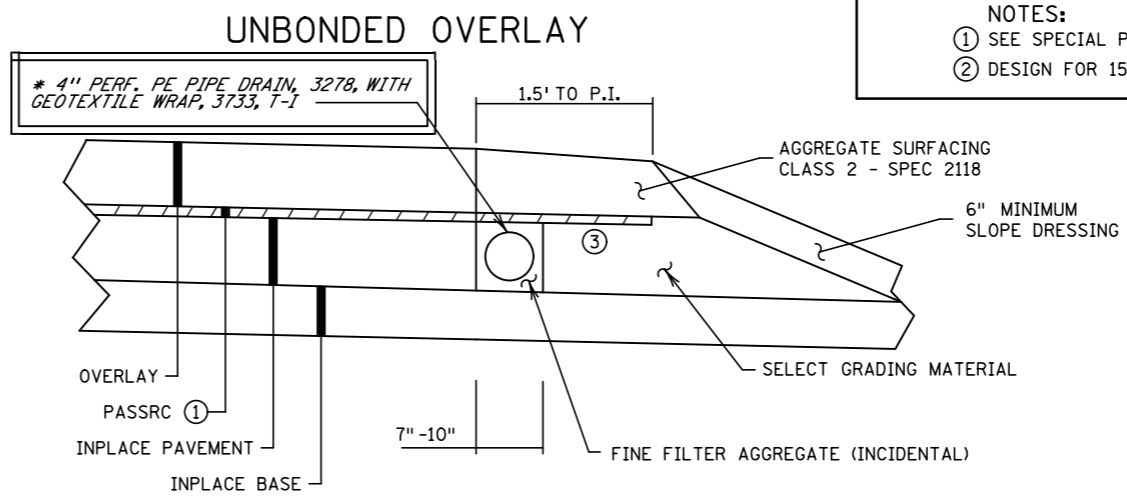
SUBSURFACE DRAIN, WIDENED PAVEMENT DESIGN WITH PAVEMENT EDGE DRAIN ①

- NOTES:
- ① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.
 - ② PERMEABLE BASE SHOULD OVERLAP PAVEMENT MAXIMUM AMOUNT PERMITTED BY STRUCTURAL DESIGN, BUT BOTTOM SHOULD NOT BE ABOVE THE BOTTOM OF INPLACE PAVEMENT.
 - ③ AS REQUIRED BY DESIGN STANDARDS. PASB - PERMEABLE ASPHALT STABILIZED BASE. OGAB - OPEN GRADED AGGREGATE BASE. PAB - OPTION
 - ④ DRAIN SHALL BE PAVEMENT EDGE DRAIN TYPE. AFTER COMPACTION, FINE FILTER AGGREGATE IN DRAIN SHALL EXTEND AT LEAST 4" ABOVE THE BOTTOM OF THE FUTURE PERMEABLE AGGREGATE BASE.
 - ⑤ GEOTEXTILE MAY BE DELETED IF CLASS 5 OR 6 BASE EXISTS INPLACE UNDER PERMEABLE BASE.
 - ⑥ IF CLASS 5 OR 6 BASE IS INPLACE BELOW THE PAB, BOTTOM OF PIPE SHOULD BE A MINIMUM OF 3" BELOW BASE/SUBGRADE INTERFACE OR A MINIMUM OF 8", WHICHEVER IS DEEPER.



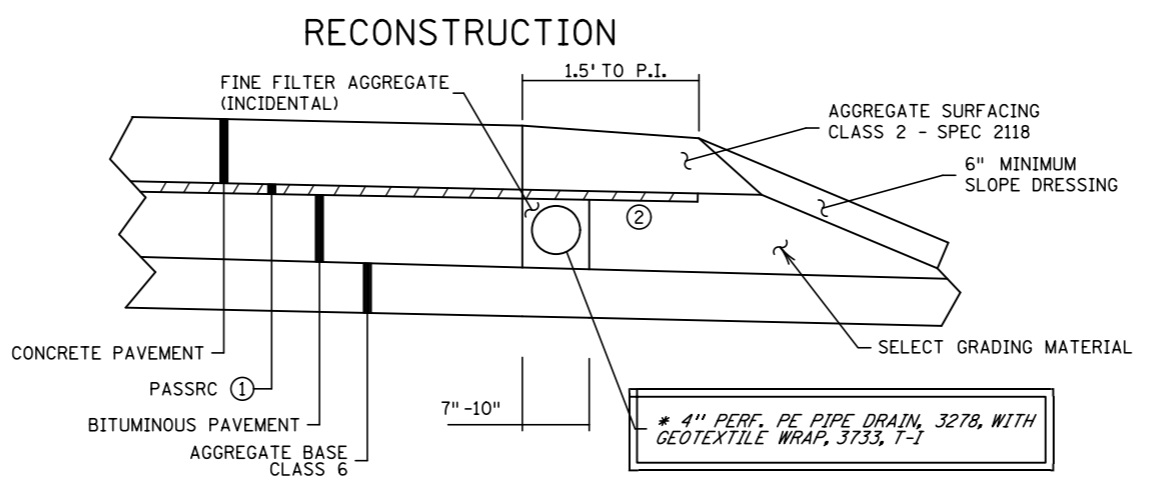
SUBSURFACE DRAIN, PAVEMENT EDGE DRAIN TYPE ①

- NOTES:
- ① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.
 - ② DESIGN FOR 15" COVER FROM TOP OF PIPE TO TOP OF SHOULDER (12" MINIMUM).



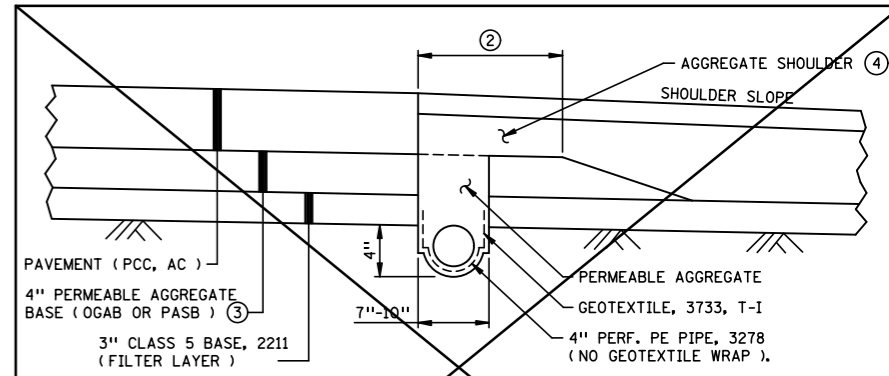
SUBSURFACE DRAIN, PERMEABLE BASE & DRAIN USED WITH PASSRC ①②

- NOTES:
- ① PASSRC - PERMEABLE ASPHALT STABILIZED STRESS RELIEF COURSE.
 - ② SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.
 - ③ WIDTH AS NEEDED TO SUPPORT PAVER TRACK.



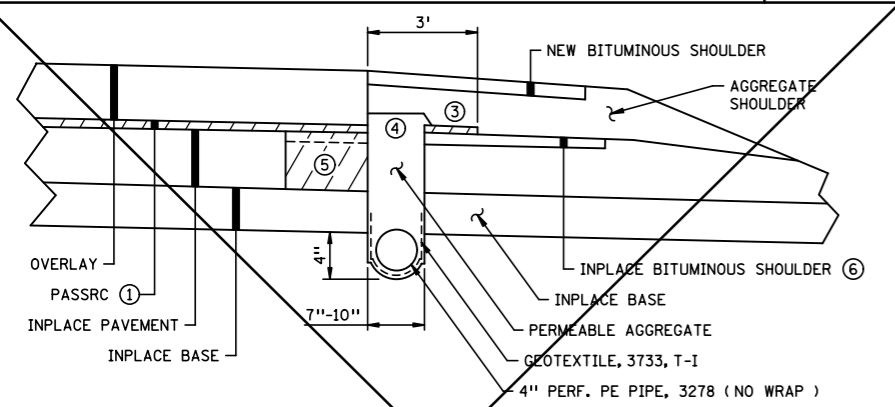
SUBSURFACE DRAIN, PERMEABLE AGGREGATE BASE TYPE ① (RIGHT SIDE OF ROADWAY SHOWN)

- NOTES:
- ① PASSRC - PERMEABLE ASPHALT STABILIZED STRESS RELIEF COURSE.
 - ② WIDTH AS NEEDED TO SUPPORT PAVER TRACK.



SUBSURFACE DRAIN, PERMEABLE AGGREGATE BASE TYPE ① (RIGHT SIDE OF ROADWAY SHOWN)

- NOTES:
- ① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS. TYPICAL SECTION SHOWN IS FOR PERMEABLE ASPHALT STABILIZED BASE (PASB). DRAIN TRENCH FOR OPEN GRADED AGGREGATE BASE (OGAB) IS MOVED 6" AWAY FROM THE PAVEMENT EDGE.
 - ② USE 36" FOR EITHER PASB OR OGAB UNDER PCC PAVEMENT. USE 12" FOR PASB UNDER AC PAVEMENT.
 - ③ OGAB - OPEN GRADED AGGREGATE BASE. PASB - PERMEABLE ASPHALT STABILIZED BASE. USE PASB WITH AC PAVEMENTS. USE PASB OR OGAB WITH PCC PAVEMENTS.
 - ④ CLASS 3, 5 OR 6, AS SPECIFIED



SUBSURFACE DRAIN, PERMEABLE BASE & DRAIN USED WITH PASSRC ①②

- NOTES:
- ① PASSRC - PERMEABLE ASPHALT STABILIZED STRESS RELIEF COURSE.
 - ② SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.
 - ③ WIDTH AS NEEDED TO SUPPORT PAVER TRACK.
 - ④ PERMEABLE AGGREGATE TO BE HEAPED 2" ABOVE TOP OF PASSRC AFTER COMPACTION.
 - ⑤ INTERCEPTOR DRAINS TYPICALLY USED AT THIS LOCATION. SEE DETAIL & SPECIAL PROVISIONS IF APPLICABLE.
 - ⑥ IF THE BITUMINOUS SHOULDER REMAINS INPLACE, THE PASSRC AND SHOULDER CAN BE REMOVED BY MILLING, TRENCHING, OR OTHER METHOD, PROVIDED THE REMAINING BITUMINOUS SHOULDER IS NOT DISTURBED/DISPLACED.

SAMPLE PLAN
 BE SURE TO USE MOST CURRENT SHEET
 THIS EXAMPLE SHOWS THE CORRECT WAY TO
 MODIFY A SHEET

* DENOTES MODIFICATION FROM STANDARD PLAN

REVISION:
 APPROVED: 8-6-2014
 DIRECTOR, OFFICE OF MATERIALS AND ROAD RESEARCH

CERTIFIED BY Will D. Zure LICENSED PROFESSIONAL ENGINEER

LIC. NO. 00000 DATE 3/17/15



MODIFIED
 REVISION:
 APPROVED: 8-6-2014
 STATE DESIGN ENGINEER

STATE PROJ. NO. 0000-00 (TH 00)

SUBSURFACE DRAINS
 STANDARD PLAN 5-297.432 1 OF 1
 SHEET NO. 29 OF 84 SHEETS