

TYPICAL SCREENED DUMPSTER ENCLOSURE DETAILS

NOT TO SCALE

PAVING NOTES

GENERAL NOTES

- EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS. TREE ROOTS SHALL BE COMPLETELY REMOVED.
- 2. EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR

GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.

- 3. THE PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. THE FINAL SUBGRADE SHALL BE THOROUGHLY PROOF-ROLLED IN THE PRESENCE OF A GEOTECHNICAL/PAVEMENT ENGINEER TO DETERMINE STABILITY. LOOSE OR YIELDING AREAS WHICH CANNOT BE MECHANICALLY STABILIZED SHALL BE REMOVED AND REPLACED WITH CLASS II SAND OR AS DIRECTED BY THE ENGINEER. ALL FILL MATERIAL AND BASE MATERIAL SHALL BE TESTED AND ITS COMPACTION AND SUITABILITY FOR ACCEPTANCE OF THE BASE MATERIAL AND PAVEMENT SHALL BE CERTIFIED BY SAID TESTING FIRM. THE OWNER SHALL SUPPLY THREE COPIES OF GEOTECHNICAL AND TECHNICAL REPORTS TO RICHMOND TOWNSHIP.
- 4. IF IN THE OPINION OF THE INSPECTOR/ENGINEER, FIELD CONDITIONS WARRANT ADDITIONAL TESTING, THE DEVELOPER SHALL ARRANGE FOR AND PAY FOR ALL REQUIRED ADDITIONAL TESTING.
- 5. 21AA LIMESTONE AGGREGATE BASE SHALL BE COMPACTED TO ACHIEVE A 95% COMPACTION LEVEL (MODIFIED PROCTOR - ASTM D 1557-91). THE BASE SHALL EXTEND A MINIMUM OF 2 FEET BEYOND THE BACK OF CURB OR THE PAVED EDGE. 6. CONCRETE PAVEMENT TESTING SHALL BE REQUIRED FOR ALL PROJECTS.
- 7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE RICHMOND TOWNSHIP, MACOMB COUNTY DEPARTMENT OF ROADS. AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. CURRENT EDITION.

8. CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO

- AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.
- 9. FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL
- 10. 1.0 INCH AND 2.0 INCH EXPANSION JOINTS SHALL BE INSTALLED PER MCDR / MDOT STANDARDS. 11. FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9
- INCHES THICK TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. 12. 6" UNDER DRAIN WRAPPED IN GEOTEXTILE FABRIC FILTER SHALL BE INSTALLED ON
- BOTH SIDES OF ALL ROADWAYS. ALSO, PLACE UNDER DRAINS AT ALL DRAINAGE STRUCTURES WITHIN PARKING AREAS. 13. CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON THE NEW BITUMINOUS PAVEMENT.

IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, SUBJECT

TO RICHMOND TOWNSHIP AND MCDR APPROVAL. THE PLACEMENT OF THE FINAL LIFT

SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED BY THE DEVELOPER. PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS. 14 ONLY PLANT MIXED PAVEMENT MATERIAL ALLOWED. MILLINGS OR RECYCLED MATERIAL OF ANY TYPE ARE PROHIBITED, APPLICABLE FOR ALL PAVEMENT TYPES

INCLUDING DRIVEWAYS (RESIDENTIAL AND NON-RESIDENTIAL). GRAVEL DRIVEWAYS (MIN 6" MDOT 21AA LIMESTONE OR CRUSHED CONCRETE AGGREGATE) MAY BE

ALLOWED ONLY WITH PRIOR TOWNSHIP APPROVAL

CONCRETE PAVEMENT

- 1. CONCRETE SHALL CONSIST OF: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI AND A SLUMP OF 11/2 TO 3 INCHES. PAVEMENT SHALL BE PLANT MIXED CONFORMING
- TO MDOT GRADE P1 DESIGNED TO MITIGATE ASR PER ASTM STANDARDS 2. ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING
- 3. THE CONCRETE BATCH PLANT SHALL BE MDOT CERTIFIED WITH LOCATION APPROVED
- BY THE TOWNSHIP AND MCDR. 4. NO CONCRETE PAVING SHALL BE ALLOWED PRIOR TO MAY 1, OR AFTER NOVEMBER 1
- (UNLESS APPROVED BY MDOT, MCDR OR RICHMOND TOWNSHIP). 5. AIR TEMPERATURE AT POINT OF PLACEMENT, AWAY FROM ARTIFICIAL HEAT SHALL BE
- MINIMUM 25° F AND RISING. 6. TEMPERATURE OF CONCRETE AT TIME OF PLACEMENT SHALL BE BETWEEN 45° F AND

BITUMINOUS PAVEMENT

- . BITUMINOUS MIXTURE SHALL CONSIST OF: BASE COURSE MDOT BITUMINOUS MIXTURE NO. 2C; LEVELING COURSE - MDOT BITUMINOUS MIXTURE NO. 3C; WEARING COURSE - MDOT BITUMINOUS MIXTURE NO. 4C; ASPHALT CEMENT PENETRATION GRADE 85-100 (PG 64-22) RECLAIMED ASPHALT PAVEMENT (RAP) SHALL NOT BE
- 2. FOR PRIVATE RESIDENTIAL ROADWAYS, COMMERCIAL PARKING LOTS, AND BIKE PATHS ALTERNATE EQUIVALENT MDOT BITUMINOUS MIXTURE MAY BE USED, WITH APPROVAL FROM THE TOWNSHIP ENGINEER
- 3. ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY OF 97% OF THE FIELD CONTROL DENSITY AS DETERMINED BY THE MARSHALL METHOD.
- 4. A BOND COAT OF SS-1H EMULSION IS REQUIRED BETWEEN THE BASE COURSE AND LEVELING COURSE AND BETWEEN THE LEVELING COURSE AND WEARING COURSE WHEN EITHER 48 HOURS HAVE ELAPSED BETWEEN PLACEMENT OF THE BITUMINOUS COURSES OR THE SURFACE OF THE PAVEMENT HAS BEEN CONTAMINATED WITH DIRT DUST, OR FOREIGN MATERIAL. THE BOND COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.10 GALLON/S.Y. (BETWEEN LEVELING COURSE AND BASE COURSE & 0.05 GALLON/SY BETWEEN WEARING COURSE AND LEVELING COURSE) THE COATS MAY DIFFER. IN THE EVENT A BOND COAT IS NOT REQUIRED. THE LEVELING COURSE MAY REQUIRE LOCALIZED BROOM CLEANING.
- 5. DO NOT PLACE HMA OR APPLY BOND COAT WHEN PRECIPITATION IS IMMINENT OR WHEN MOISTURE ON THE EXISTING SURFACE WILL PREVENT SATISFACTORY CURING. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, TEMPERATURE AND SEASONAL REQUIREMENTS FOR PLACING HMA WILL BE ACCORDING TO THE CURRENT MDOT SPECIFICATIONS. PAVING WILL NOT BE ALLOWED BELOW THESE MINIMUM TEMPERATURES, NOR WHEN FROST IS ON OR IN THE GRADE OR ON THE EXISTING

SIDEWALK STANDARD NOTES

BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

BARRIER FREE REQUIREMENTS.

DIRECTION OF TRAVEL.

OF THE RAMP.

ADJACENT CONCRETE

CONTROL DEVICES"

EXISTING OR PROPOSED SIDEWALK AND CURB.

OVER LOCATION OF DRAINAGE STRUCTURE.

BROOMING, TRANSVERSE TO THE SLOPE OF RAMP.

1. SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE

INSTALLED AS SHOWN ON THE PLAN AT ALL STREET INTERSECTIONS AND AT ALL

2. SIDEWALK AND PATHWAY RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. DETAILS SHOW SIDEWALK RAMP DETAILS

4. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE

AT PARKING LOT AND ROADWAY INTERSECTION. HANDICAP RAMPS SHALL MEET ADA

RAMPS SHALL BE PROVIDED AT CORNERS OF AN INTERSECTION WHERE THERE IS

5. SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS

6. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES. WHERE CONDITIONS PERMIT, IT IS DESIRABLE

THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE

7. IF POSSIBLE, DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH

THE NEW CONSTRUCTION. LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE

RAMPS. EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED IN

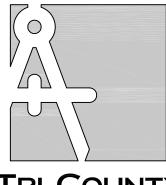
8. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA

9. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE

10. CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO

STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING

APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC



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LIENT NAME: RICHMOND TOWNSHIP MACOMB COUNTY



Know what's below.

PRIOR TO CONSTRUCTION, ALL EXISTING UTILITIES LOCATION AND DEPTH WITHIN THE PROJECT AREA SHALL BE FIELD VERIFIED. CALL MISS DIG SYSTEM 3

> UTILITY INFORMATION SHOWN ON THIS DRAWING ARE APPROXIMATE AND MAY I ACCORDING TO AVAILABLE RECORD OR ISCLOSED INFORMATION BY VARIOUS UTILITY COMPANIES, PUBLIC AGENCIES OR OTHER SOURCES AND THUS MAY NOT NECESSARILY REFLECT ACTUAL FIFLD LOCATIONS AND NO GUARANTEE

RESERVED. THÍS DRAWING AND ALL NFORMATION CONTAINED HEREIN ARE NOT TO BE USED OR REPRODUCED

PROJECT LOCATION: SEC , TO5N, R14E

REVISIONS:

SIDEWALK CONSTRUCTION NOTES

1. PROVIDE TRANSVERSE SAW CUT JOINTS AT APPROX 5' INTERVALS (7' MAX). SAW 1/8" WIDE X 1" DEEP JOINTS. TOOLED JOINTS NOT ACCEPTABLE. 2. PROVIDE FULL DEPTH TRANSVERSE EXPANSION JOINTS, BY INSTALLING 1/2" THICK PREMOLDED JOINT FILLER SET 1/4" BELOW THE CONCRETE SURFACE IN THE JOINTS AT

50' MAX INTERVALS.

3. PLACE 1/2" FIBER EXPANSION JOINT FILLERS AT EACH SIDE OF DRIVE. 4. PROVIDE 1" FIBER EXPANSION JOINT FILLERS AT CURB AND BUILDING OR ROW LINE

5. AT DRIVEWAYS WITH CURB & GUTTER, PROVIDE CURB DROP PER CURRENT MDOT

6. AT UNPAVED DRIVE OR PAVED DRIVE WITH POOR CONDITION, INCREASE THE SLAB THICKNESS TO 6" OR EXISTING SLAB THICKNESS WHICHEVER GREATER. 7. PROVIDE 10' BET EDGE OF SIDEWALK TO TOP OF BANK FOR DETENTION BASINS, OPEN

- 8. ADJACENT FINISHED GRADE SHALL BE SET 2" BELOW TO ACCOMMODATE SOD. 9. MAX GRADE ALONG SIDEWALK SHALL NOT EXCEED 1 ON 12
- 10. SIDEWALK CROSS SLOPE SHALL BE 2% FOR DRAINAGE.
- 11. A MIN 95' SIDEWALK CENTERLINE RADII SHALL BE PROVIDED FOR HORIZONTAL

12. PROVIDE MIN 3' HORIZONTAL CLEARANCE AND MIN 10' VERTICAL CLEARANCE FROM ALL FIXED OBJECTS AND AS DIRECTED BY THE OWNER. 13. PROVIDE HANDICAP ACCESSIBLE RAMPS AT STREET INTERSECTIONS AND AS

14. HANDICAP ACCESSIBLE RAMPS SHALL BE CONSTRUCTED PER CURRENT MDOT

15. CLEAN SAW CUT JOINTS SHALL BE PROVIDED WHENEVER NEW PAVEMENT MATCHES

16. UTILITY STRUCTURES SHALL BE ADJUSTED PER CURRENT MUNICIPALITY STANDARDS AND SHALL MATCH PROPOSED SIDEWALK GRADE.



3 WORKING DAYS

Call before you dig.

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PROJECT NAME:

RICHMOND TOWNSHIP **PAVING**

STANDARD DETAILS

RICHMOND TOWNSHIP MACOMB COUNTY

Drawn By: TCEC Checked By: TWP

Approved By: TWP

08/30/22

E OF MICHI SERMED K. ENGINEER

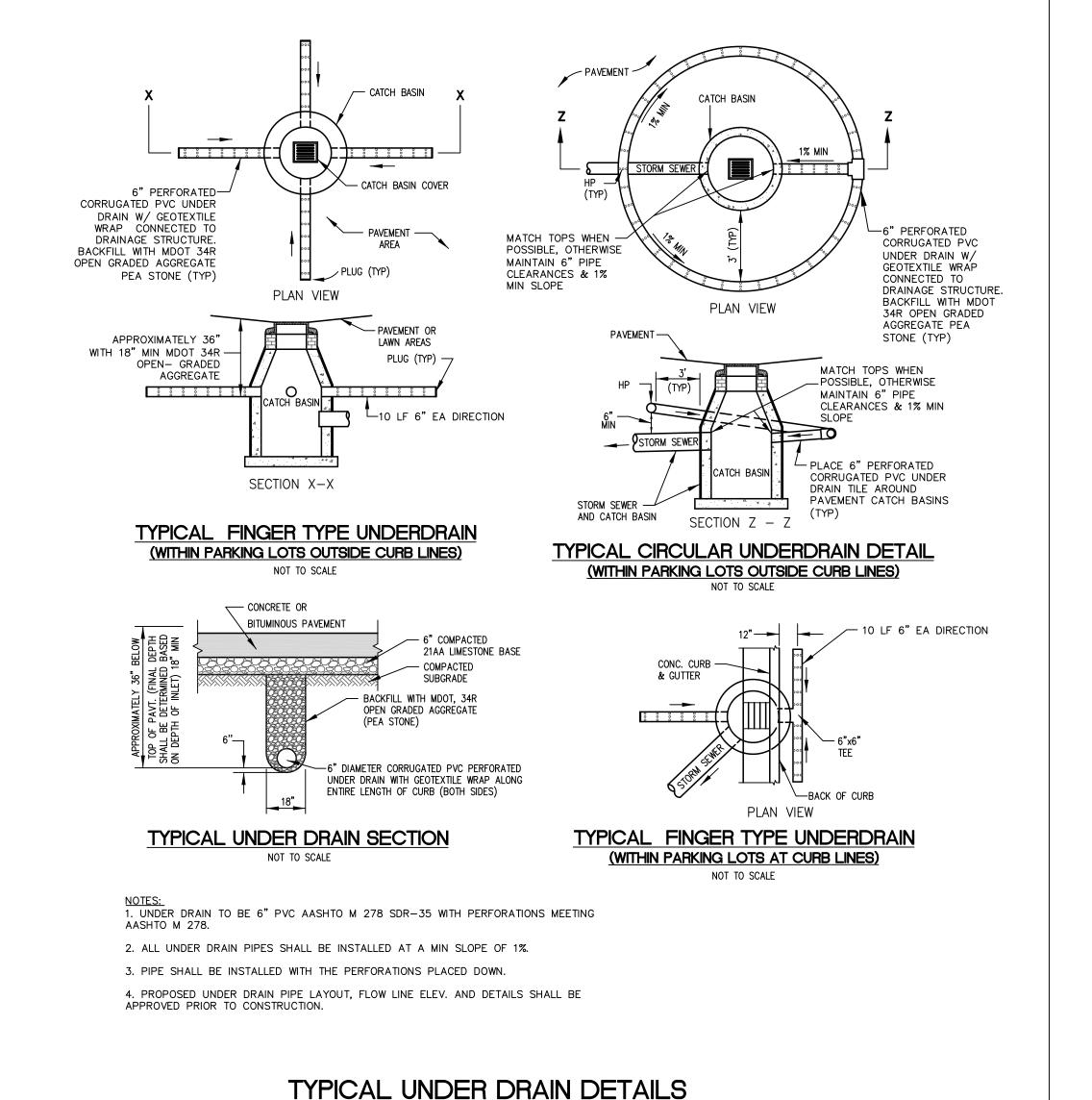
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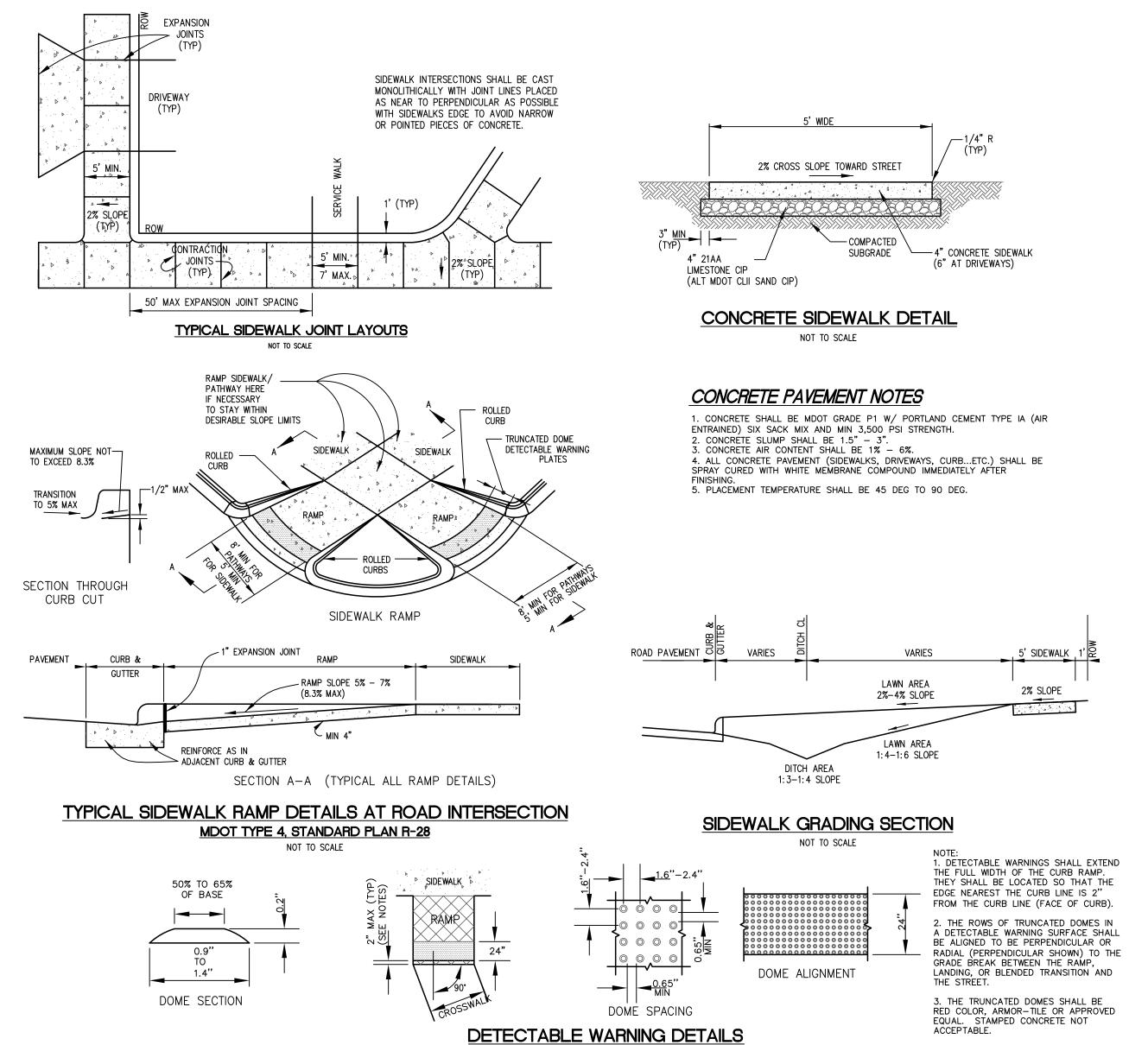
BAR IS ONE-INCH ADJUST SCALES ACCORDINGLY IF N

DRAWING NO:

RichmondStdPAV

TYPICAL CONCRETE SIDEWALK DETAILS





MDOT STANDARD PLAN R-28 NOT TO SCALE