Emigration Canyon Engineering Standard Drawings

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Need for Adopting Engineering Standard Drawings

HB 368 (lines 4198-4201) – Inspection Standards Need to be Adopted by Each Municipality

Schedule:

- May 13th – Planning Commission Recommendation for Adoption
- May 21st – Presentation to Council for Adoption

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Engineering Standard Drawings

Apply to:

- Public Infrastructure
- Development Projects

We Recommend Adopting Industry Standards:

- APWA (American Public Works Association)
- AASHTO (American Association of State Highway and Transportation Officials)
- Utah MUTCD (Manual on Uniform Traffic Control Devices)

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Industry Standards

Recommend Language to Automatically Adopt State Specific Updates of Industry Standards:

GENERAL PROVISIONS

Town of Copperton automatically adopts the latest revision of AASHTO "A Policy on Geometric Design of Highways and Streets" (Green Book), the Utah Manual on Uniform Traffic Control Devices (MUTCD), and APWA Manual of Standard Plans and Manual of Standard Specifications, with exceptions noted in this document.

The city engineer may approve exceptions to engineering standards and drawings where appropriate.

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Exceptions to Standards

Sheet 3 of
Engineering Standard Drawings →
and Specifications

APWA Plan No./ Specification Section	Exception
215, 216, 221.1, 221.2, 225, 229.1 & 229.2	APWA Plan No's. 221.1 and 221.2 are acceptable for use. APWA Plan No's. 215, 216, 225, 229.1, and 229.2 are not acceptable for use unless otherwise authorized by the MSD Engineer.
221.1, 221.2	When adverse slopes, right-of-way limitations, or existing obstructions occur, MSD Engineering may authorize deviations from the APWA apron/slope geometry.
251	Bituminous Concrete (asphalt) T-Patch thickness is 6" minimum for both residential and non-residential streets.
255	Bituminous Concrete (asphalt) T-Patch thickness is 6" minimum for both residential and non-residential streets. 2" mill and overlay are never required if there is a known upcoming city Capital Improvement Project that will reconstruct or overlay the road within two (2) years. Otherwise, the mill and overlay is only required when length of T-patch is over 300 feet, and existing pavement (full depth or overlay) is less than seven (7) years old. Mill and overlay must meet requirements in Copperton Code 14.16.010C.
292	Steel tube is to be 12' x 2" x 2". Standard Plan 140 in this book applies in locations where sign is installed in concrete.
315.1, 315.2 & 316	Where APWA inlet plans refer to frame and grate per APWA Plan No. 308, contractor shall use Standard Plan 201 in this book, unless otherwise authorized by the MSD Engineer.
332	The use of pre-cast "knock-out" boxes in storm drain facilities may be authorized by the MSD Engineer, upon written request and provided the following conditions are met: a) All other requirements of APWA Plan 332 - Precast Box, are still met. b) Boxes shall have engineered design for AASHTO's HL-93 live load and shall be designed for lateral soil loads appropriate for the burial depth and conditions. c) The thickness of concrete collars where the pipe enters box at the knockout face shall extend 6" to 9" from the exterior face of the box and shall cover the entire side of the structure with no less than 12" concrete all the way around the pipe. Collars shall have a minimum of four (4) #4 dowels tying the collar to the precast box and include a #4 rebar ring or square tie around the pipe. d) Inspection and certification required on all precast boxes.
381	(Note 2A) - Use granular backfill borrow for common fill.
382	(Note 2B) - Use granular backfill borrow for common fill. (Note 3A) - Minimum trench width is to be Pipe O.D. + 24" or (Pipe O.D. x 1.25)+12", whichever is greater.
33 05 02	Public storm drain pipes and culverts shall be 15" dia.or greater RCP unless otherwise authorized by the MSD Engineer. Installation must follow manufacturer's direction. Provide a minimum amount of 1' cover over top of concrete pipes and 2' cover over the top of pipes of other materials unless approved otherwise by manufacturer and MSD Engineer. Corrugated metal pipe and vitrified clay pipe are not allowed.

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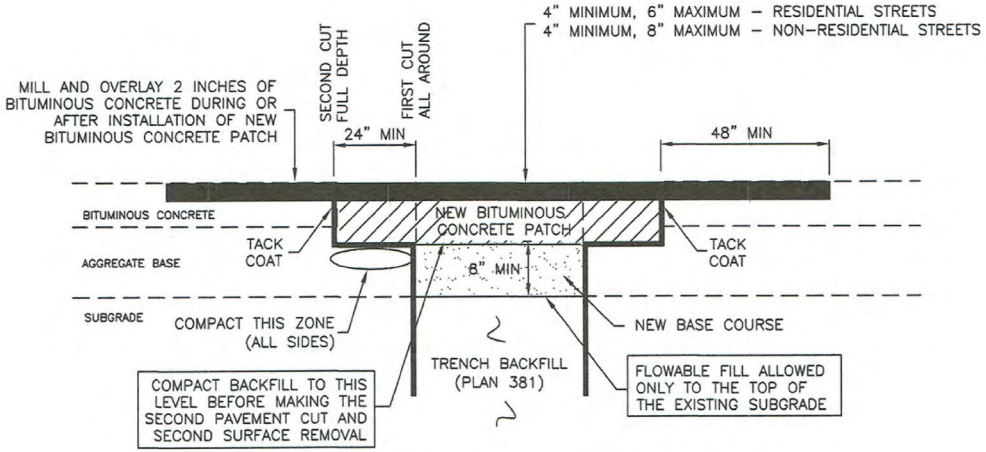
Exceptions to Standards—Excavations

APWA Plan 255 – Mill and Overlay Requirement:



BITUMINOUS CONCRETE RESTORATION

Required on ALL Roadway Excavation

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Exceptions to Standards—Excavations

Copperton Code 14.16.010.C – Right-of-Way Excavation

- More Stringent
- New, Overlaid, Reconstructed (0-3 years)
  - To Center of Road
  - Or 15’ in Each Direction from Each Side of the Cut
- Slurry or Chip-sealed Streets (0-2 years)
  - 15’ in Each Direction from Each Side of the Cut

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Exceptions to Standards

What are Other Municipalities Doing?

- Commonly Accepted Across the State
- West Valley City – City Specific 255 Standard
- Salt Lake City
  - Required on Newly Constructed Roads for 7 Years
  - Required on Repaved Roads for 3 Years

Engineering Recommendation

APWA Plan 255, with following exceptions:

- Mill and overlay not required whenever there is an upcoming city project that will mill and overlay or reconstruct the road within two (2) years.
- Call to City Code – requires full-width mill and overlay on roads newer than three (3) years.
- APWA Mill and overlay required if street cut is longer than 300 feet long and pavement is 3-7 years old.
- Mill and overlay not required if pavement is greater than 7 years old.

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Discussion/Comments

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