CITY OF PEORIA SUPPLEMENT

TO

MARICOPA ASSOCIATION OF GOVERNMENTS

UNIFORM STANDARD DETAILS

CITY OF PEORIA

CONSTRUCTION

DEVELOPMENT AND ENGINEERING DEPARTMENT

2016

City of Peoria
Summary of Updates to Infrastructure Design Guidelines Mid-Year 2016

CHAPTER	SUB-SECTION	ITEM	MODIFICATION
DETAIL	PE-101-1	Water Line Materials	Added: "Waterline and plumbing materials shall comply with NSF 61 latest edition and be lead free. No exceptions for non-potable systems." Was added to the top of the list and all other items in the list were moved down.
DETAIL	PE-351-1	LIST OF MATERIALS	Added: 1. ...ASSEMBLY "SHALL BE LEAD FREE, NO EXCEPTIONS".

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1	A-3	D	Change “Subdivision Design Manual” to Infrastructure Design Guidelines to correctly reference the document.
1	A-3	G	Change “this Ordinance” to the Infrastructure Design Guidelines to correctly reference the document.
1	A-3	G	Grammar correction: change to…trust, corporation, company, and/or an individual.
1	A-3	G.1.	Removal of repeated phrase: “including easements”
1	A-3	G.8.	Change “this and other” to applicable
1	A-3	G.12.	Changed definition: “Please see definition for Director of Engineering
1	A-3	G.24.	Added definition: “Director of Engineering. As outlined in Chapter 23 of the City Code, the Director of Engineering is appointed by the City Manager and shall hold the additional offices of Superintendent of Streets and shall be designated and have all the duties and powers of the City Engineer as set forth in state law and under the Peoria City Charter and this Code. The Director of Engineering or their designee can act upon these duties as designated by the Director of Engineering. The terms City Engineer, Engineering Director and Director of Engineering all refer to this definition.”
1	A-3	G.26.	Remove “steam”
1	A-3	G.28.	Modification for clarification: “…prepared by an Arizona registered engineer of appropriate discipline” to “prepared by a professional engineer registered in the State of Arizona…”
1	A-3	G.29.	Added definition: “Engineering Department. May also be referred to as the Development and Engineering Department, Community Development Department or any other reference that has been used to represent the Engineering Department in past, present or future publications.”
1	A-3	G.34.	Clarification of industry terms: added “base flood elevation” after The 100-year flood
1	A-3	G.44.	Capitalize Ordinances in the last sentence
1	A-3	G.49.a-c	Change reference: from “Article III of this ordinance” to “applicable City of Peoria Codes and Ordinances”
1	A-3	G.52.	Corrected title: Public Works-Utilities Director
1	A-3	G.64.	Remove “steam”
1	B-2	A.6.	Spelling correction “computer” to ‘computed”
1	D-2	A	Grammar correction “…utility, and/or grading construction with appropriate cross sections and/or profiles.
1	D-4	A	Added “Engineering” to clarify which department need to approve.

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CHAPTER	SUB-SECTION	ITEM	MODIFICATION
1	J-11		Spelling correction “complements” to “compliments”
1	J-13	1	Add “or” between Director and their
1	J-18 STREET BORE REQUIREMENTS	C	Add “Engineering” in front of Inspectors for clarification.
1	J-19	C	Spelling correction “fro” to “for”
1	J-29		Updated Private Water Company List to remove New River Utility Company
1	K	B.1.	Updated technology reference from “microfilming” to “for electronic capture”
1	K	B.3.	Updated technology reference from “microfilmed” to “scanned”
1	L		Throughout this section correction “construction permit” to “Construction Permit”
1	M		Throughout this section correction “construction permit” to “Construction Permit”
2	Whole Chapter		Delete Chapter 2 and put on reserve. Information will be included in Chapter 3
3	3-1	E	Add: “…required right-of-way. The developer is responsible to install interconnect conduit per City Standards adjacent to their site. If the development installs a traffic signal as part of their project, interconnect communications is required at the new/modified signal. This will include conduit per City Standards, 96-strand SMFO to the new control cabinet, and connection to another signal with communications up to ¼-mile. Fiber splicing and a possible node cabinet will be required. Additionally, …”
3	3-2	C.1.	Modified C to two statements: 1. *Driveway Spacing.* Driveway Spacing and Location shall be in accordance with Section 204, City of Peoria Standard Detail PE-251-3, and the Access Management Guidelines.
3	3-2	C.2.	Added to C: 2. *Commercial Driveways.* For commercial driveways that potentially could be signalized, the minimum throat length shall be 150 feet. The throat length shall be clear of parking and intersecting drive aisles. Planned commercial sites that consist of two or more parcels shall have internal connectivity that is clear of obstacles to minimize the impact to the adjacent public streets. Exceptions must be submitted to the Engineering Director or their designee with an accompanied traffic study for review and approval.
3	3-2	D.2	Added: “…elementary school, ~~or~~ high school, or park shall…”
3	3-2	E	Added Street Classification to chart: “Parkway 35’ 35’ 35’ N/A”
3	3-2	I	Added to end of statement: “If an existing street light is in conflict due to development, it is not allowed to be relocated. A new LED street light is required per pole and foundation requirements indentified in the Street Lighting Policy.”
3	3-2	J	Added to end of statement: “Two-way reflective blue raised pavement markers, ADOT Type BB, for fire hydrants shall be installed for all new and relocated hydrants in

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			accordance with MAG Detail 122."
3	3-2	Q	**Traffic Control Devices** Added from Chapter 2: Q. Traffic control, sign, barricades and pavement markings shall be in accordance with the Federal Manual on Uniform Traffic Control Devices (MUTCD) as revised. Street and lane closure shall be in accordance with the Phoenix Traffic Barricade Manual and the MUTCD as revised. When any existing traffic control signs, barricades, guardrails, traffic signal facilities and equipment is called to be removed or replaced care shall be taken to salvage such facilities and equipment and deliver to the Maintenance Operations Center (MOC), Public Services Yard at 8850 N 79th Avenue. 1. **Traffic Signs and Pavement Markings** – All new developments and roadway projects shall provide the required traffic control signs, street name signs, sign posts and pavement markings on all streets and intersections. The Developer is responsible to furnish and install the signs, posts and markings. Final Certificate of Completion and Construction bonds will not be released and streets will not be opened to the public until all signs and markings have been installed. 2. **Signing and Striping Plan** – shall be submitted to the Development and Engineering Department and approved through the plan review process. All new and existing signs shall be shown on the plans. It is the Design Engineers' responsibility to design the Signing and Striping Plan to meet standards as described by the latest adopted version of the MUTCD. The signing and striping Plan shall include striping with Raised pavement Markers (RPM) on arterial streets with no adjacent street lighting and at other locations deemed necessary by the City Traffic Engineer through engineering judgment. 3. **Signs and Sign Posts** – shall conform to the latest adopted version of the MUTCD and City of Peoria Standards and be installed per city of Peoria Standard Detail PE-032. 4. **Striping Installation** – shall conform to the latest adopted version of the MUTCD and City of Peoria Standards and be installed per City of Peoria Standard Details PE-011 through PE-018. 5. **Traffic Signals** – Signal modifications that are a result of street widening or recommended in the Traffic Impact Analysis (TIA) related to the development are the responsibility of the Developer. Signal conduit with pull boxes shall be

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			provided at all major arterial, minor arterial and collector street intersections as shown in City of Peoria Standard Details PE-033 through PE-035. Traffic signal specifications and details shall be designed in accordance with the Arizona Department of Transportation, Traffic Signals and Lighting Specification and Standard Drawings. a. Traffic signal poles and hardware shall conform to the Arizona Department of Transportation standards and shall be approved through the Electrical Equipment Submittal Process. b. Traffic signal cabinets and controller/electronic equipment shall be selected from the City of Peoria approved traffic signal cabinets and controller/electronic equipment list. Traffic signal cabinets and controller/electronic equipment shall be approved through the Electrical Equipment Submittal process. c. Internally Lighted Street Name Signs (ISNS)/Metros shall conform to the City of Peoria Standards. The design of the ISNS shall be approved through the Electrical Equipment Submittal process. The installation of the ISNS shall be coordinated with the Traffic Operations Supervisor. 6. **Barricades** – All new developments shall provide a typical end of road marker at all dead ends and incomplete streets. The end of road markers shall be nine red reflectors each with a minimum dimension of three-inches mounted symmetrically on an 18 diamond back panel. Five or more markers shall be used at the end of the roadway. The minimum height of the marker shall be four feet. If an existing barricade is removed it shall be salvaged and delivered by the contractor to the MOC, Public Services Yard at 8850 North 79th Avenue. Barricades installed by phased construction may be relocated within the same development if the condition of the barricades is restored. Barricades shall be set one-foot inside the subdivision being developed. The pavement should stop short of the barricade. 7. **Street and Lane Closure** – A Traffic Control Plan Submittal Form along with a Traffic Control Plan shall be submitted to the City at least 48-hours in advance of any lane or street closure. This submittal must be approved by the City prior to any closure for work to be undertaken within the street right-of-way. All construction zone signing shall be installed and maintained per the Phoenix Barricade Manual and the MUTCD at the developer's expense. This submittal

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			shall be faxed to the Engineering Inspector Supervisor at (623) 773-5370.
3	3-2	R	Added from Chapter 2: **R. Parking and Access** – Parking is prohibited on parkway and arterial streets. Where not restricted on collector and local streets parking shall be parallel to the flow of traffic unless a designated parking area is provided with marked angled or perpendicular parking stalls. Any parking backing into the main drive aisles of a commercial development will be prohibited. The minimum throat length of all accesses/driveways shall be 50-feet. Longer throat lengths may be required based on the requirements of the TIA.
3	3-4	B.10.b	Grammar correction: "Cul-de-sac streets shall terminate in a circular right-of-way 50-foot in radius with an improved…"
3	3-4	C.4.b	Add: "Roll" in front of Curb in title.
3	3-4	F.1.a	Grammar correction: "…superelevation of 0.02ft/ft whenever possible,"
3	3-4	G.2(1)	Grammar correction: "…pavement surface, to an object 2-foot high…"
3	3-4	G.2(2)	Grammar correction: "…the top of an object 3.5-foot high…"
3	Throughout		Change "construction permit to Construction Permit"
4	4-1	D.2	Grammar correction "…Water Storage…"
4	4-1	D.3	Spelling correction: "gunnite" to "gunite"
4	4-1	D.6	Format correction "6. Obstructions."
4	4-1	D.7	Added Section: *7. Ownership and Maintenance Requirements*. As part of the initial layout design, the designer must consider and accommodate the future need of vehicular access for maintenance purposes. Preliminary design should minimize long-term maintenance requirements. It is essential that maintenance be considered during the planning, design and construction of drainage facilities. Maintenance is provided so that the facility is maximized. Common maintenance problems associated with drainage facilities includes growth of undesirable vegetation, debris accumulation, sedimentation, erosion, scour, soil piping, soil settlement, structural damage and failing to plan for maintenance access. Culverts and bridges are to be designed to avoid impacts to existing sediment transport conditions. Culverts and bridge within the City are generally within the public right-of-way for the road. Additional easement or right-of-way, beyond the normal street width may be required to facilitate the construction, operation and/or maintenance of the structure. Design plans for the structure shall include the proposed easement and/or right-of-way limits. Maintenance issues and access shall be considered in the structure design, and

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			appropriate measures should be included to facilitate proper maintenance (i.e. access road if necessary, etc.). Ramped, vehicular access for maintenance is required at the upstream and downstream ends of all culverts that are not accessible from the roadway. The maintenance access route shall be within public right-of-way or a City approved easement. A city-owned property, right-of-way, or privately-owned drainage tract or easement shall be provided for the area inundated by backwater from the culverts for the peak 100-year event. The 100-year floodplain limits shall be delineated and shown on the subdivision Final Plat or Map of Dedication.
4	4-1	E.1	Correction in reference: "…(see Section 4-5 of this chapter)."
4	4-1	E.3	Grammar Correction: "…Design Engineer shall"
4	4-2	A.1(2)	Formatting Consistency: changed "fifty" to "50-"
4	4-2	A.3.b.	Formatting Consistency: changed "one hundred" to "100-"
4	4-2	A.3.c.	Formatting Consistency: changed "twelve" to "12-"
4	4-3	A.5.c.	Spelling correction: "drainageway"
4	4-3	B.1.a.	Formatting correction: (See 4-3.B.2(b))
4	4-3	B.2(5)	Formatting Consistency: changed "ten" to "10-"
4	4-3	B.3	Grammar Correction: "The following access provision…"
4	4-3	B.7.d.	Grammar Correction: "…100-feet of active water well…"
4	4-3	B.7.f.	Grammar Correction: "A minimum 4-foot of cover…"
4	4-5	F.6	Grammar Correction: "…the flow to both its natural or existing location and magnitude…"
4	4-5	K.7.	Grammar Correction: change from "FFE's" to "FFEs"
5	5-2	C.6.	Addition at end of paragraph: "Street crossings shall be perpendicular to the centerline of the street being crossed."
5	5-2	E.2.b.	Grammar correction: "All ~~W~~ waterlines ~~in~~ 12-inch and larger…"
5	5-2	F.9.a.	Addition of specifications: "…TR FLEX, Griffin-SNAP-LOK RJ pipe or American Ductile Iron Flex-Ring Joint Pipe."
5	5-4	D.2.b.	Specification Change: "One ~~2 ½ inch~~ 3" hydrant meter ~~opening~~ will, under normal pressure of 40 psi, provide this velocity in pipe sizes up to and including ~~12~~ 8 inches."
5	5-4	D.2.c.	Specification Change: "For pipe sizes exceeding ~~12~~ 8 inches diameter, additional hydrant meters will be needed to provide the required flow as shown below. ~~Flushing taps size requirements are:~~

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5	5-4	Chart	Specification Change: corrected to… **REQUIRED FLOW TO FLUSH WATERLINES** **Pipe Diameter (inches)** / **Flow Required (gpm)to Produce 2.5 feet per second (fps) Velocity in Waterline** / **Number - Hydrants Required** 12 / 900 / 2 16 / 1600 / 3 24 / 3600 / 7
5	5-5	A.2	Addition at end of paragraph: "…process guide) and the Integrated Water Utility Master Plan 2015."
5	5-5	A.2.	Remove reference to website link that is broken.
5	5-5	A.2.	Spelling correction: "watermain" to "water main"
6	6-1	D	Spelling correction: "Director of the Public…."
6	6-2	B.2.	Grammar Correction: added "pipe" after sewer
6	6-2	B.3	Grammar Correction: added "pipe" after sewer
6	6-2	C.10	Addition at end of paragraph: "…detention basins and their appurtenances."
6	6-2	E.3.	Grammar Correction - rewritten to: "All laterals shall have a minimum of 5-feet of cover measured from finished grade to the invert of the lateral. During construction the depth of cover may temporarily be less than 5-feet, such as during preparation of street sub-grade, installation of foundations, culverts or utilities."
6	6-2	G.9.	Addition of language: "…ductile iron pipe with an approved lining. Bury ….." AND "…conform to Section 6-1.413 of SSA 5-96. The engineer…"
8	8-1	D	Grammar Correction: "…in writing by the ~~director of the~~ Public Works-Utilities Director ~~Department~~ or their designees.
8	8-2	C.6.	Addition of language to end of paragraph: "Street crossings shall be perpendicular to the centerline of the street being crossed."
8	8-2	F.3.a.	Addition of specifications: "…TR FLEX, Griffin SNAP-LOK RG pipe or American Ductile Iron Flex Ring Joint Pipe. Joint…"
8	8-2	G.4.b.	Added instruction: "…shut down a "Peoria Distribution System-Shut Down Request Form" must…"
8	8-2	I.1.b.	Addition of language: "Backflow protection is ~~not~~ normally required on reclaimed water system services per the Public Works-Utilities Department SOP."
10	Throughout		Changed "construction permit" to "Construction Permit"

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10	10-2	A.1	Grammar correction: changed “widenings” to “widening”
10	10-2	F	Changed “Soundwalls” to “sound walls”
10	10-2	H	Added Section: **<u>Bridge and Culvert Easement, Ownership and Maintenance Requirements</u>** As part of the initial layout design, the designer must consider and accommodate the future need of vehicular access for maintenance purposes. Preliminary design should minimize long-term maintenance requirements. It is essential that maintenance be considered during the planning, design and construction of drainage facilities. Maintenance is provided so that the facilities can function as they were originally designed and constructed, and so that the service life of the facility is maximized. Common maintenance problems associated with drainage facilities include growth of undesirable vegetation, debris accumulation, sedimentation, erosion, scour, soil piping, soil settlement, structural damage and failing to plan for maintenance access. Culverts and bridges are to be designed to avoid impacts to existing sediment transport conditions. Culverts and bridges within the City are generally within the public right-of—way for the road. Additional easement or right-of-way, beyond the normal street width may be required to facilitate the construction, operation and/or maintenance of the structure. Design plans for the structure shall include the proposed easement and/or right-of-way limits. Maintenance issues and access shall be considered in the structure design, and appropriate measures should be included to facilitate proper maintenance (i.e. access road if necessary, etc.) Ramped, vehicular access for maintenance is required at the upstream and downstream ends of all culvers that are not accessible from the roadway. The maintenance access route shall be within public right-of-way or a City approved easement**. A city-owned property, right-of-way, or privately-owned drainage tract or easement shall be provided for the area inundated by backwater from the culverts for the peak 100-year event. The 100-year floodplain limits shall be delineated and shown on the subdivision Final Plat or Map of Dedication.**
10	10-3	N.2	Grammar correction: changed “widenings” to “widening”

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			GENERAL NOTES CHANGES
	Entire Document		Throughout General Notes change "construction permits" to "Construction Permits". Add the statement "or their designee" following Engineering Director or Public Works-Utilities Director when applicable.
	GENERAL INFORMATION	2	Grammar correction: "…Permits are required for ~~Grading~~ grading~~/~~ ,drainage, erosion control, flood control structures, ~~grading~~, hauling material in excess of 100…"
	GENERAL INFORMATION	3	Change Code Reference: "~~The City's Ordinance No. 98-04~~ The City Code Sec. 13-91.(2) establishes construction…"
	GENERAL INFORMATION	4	Change reference to Code: "~~This document~~ The City Code also establishes work…"
	GENERAL INFORMATION	5	Grammar and Code reference changes: "…of fees as listed ~~below~~ in Chapter 2 of the City Code." "…in accordance with ~~Ordinance No. 01-181~~ Chapter 23 of the City Code."
	GENERAL INFORMATION	6	Change reference to Code: " …(refer to ~~City Ordinance #01-181~~ Chapter 23 of the City Code)."
	GRADING AND DRAINAGE	1	Change: "The Engineering ~~Director's~~ Inspections Office…"
	GRADING AND DRAINAGE	8	Change: "…the Engineering ~~Director's Office~~ Department for all…."
	PAVING	1	Change: "…by the ~~Field~~ Engineering Inspections Division."
	PAVING	13	Add: "All new curb shall be imprinted with the words "PRIVATE STREET – NO CITY MAINTENANCE" in 2" high letters at every curb return and at every entrance into a new private property subdivision."
	SEWER		Throughout this section – change "design engineer" to "Design Engineer"
	WATER		Throughout this section – change "design engineer" to "Design Engineer"
	RECLAIMED WATER		Throughout this section – change "design engineer" to "Design Engineer"
	SIGNING & STRIPING	Paragraph 2	Add: "…the City's Engineering Inspection Division shall…"
	SIGNING & STRIPING	STRIPING 2	Grammar correction: capitalize "Standards" and "Details"
	TRAFFIC SIGNAL NOTES	GENERAL NOTES	Corrected numbering so first statement is number 1 and then adjusting throughout the list.
	ADDITIONAL NOTES FOR BOX CULVERTS		Spelling correction: "ADDITONAL" to "ADDITIONAL"

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			STANDARD DETAILS
PE-030	STREET NAME SIGNS		Combined detail PE-030 and PE-031 with additional notes for Private Street Signs.
PE-033	INTERCONNECT TRENCH DETAIL		Typical "B" Reference to note needs to be corrected: "TRENCH WIDTH, SEE NOTE ~~7~~ 6 NOTES: #7 Updated from: "…EACH PULL BOX. ~~IF A CRIMPED SPLICE IS REQUIRED IT SHALL BE DONE IN THE PULL BOX ONLY AND "NOT" IN THE CONDUIT RUN.~~" Changed to: "…EACH PULL BOX. CRIMP A PIGTAIL TO LID. A CRIMPED SPLICE IS REQUIRED IN ALL THE PULL BOXES AND "NOT" IN THE CONDUIT RUN."
PE-034-2	INTERCONNECT PRECAST COMMUNICATION PULL BOX NOTES		Format Correction between 4 and 5 NOTES: #12 Updated from: "~~ALL PULL BOX COVERS SHALL BE FURNISHED W/3/8 (35) X 1/16 (2), DEEP RECESSES IN 5 PLACES. A TOTAL OF 1 TEST POINT ALL GROUND WIRES CONNECT TO 1 TEST POINT~~." Changed to: "CONDUCTOR LOCATE WIRE SHALL BE SPLICED IN ALL BOXES WITH PIGTAIL FOR LOCATING CONNECTION TO BE CONNECTED TO LID."
PE-035	INTERCONNECT #7 COMMUNICATION PULLBOX		Change drawing label and drawing: change "~~Section A-A~~" to DEAD END BOX ONLY and PLAN VIEW and make adjustments to drawing to reflect Dead End Box. Change "~~SECTION B-B~~" label to "SECTION A-A". Change the following Notes in MATERIAL LIST box: 3 should read: "FIBERLYTE FL36TBOX/FL36D LID/FL36 EXTENSION – (PE-40-1)" 7 correct spelling of "SCHEDULE" 11 should read "1" IN BOX BELL END FOR PVC – SEE NOTE 9"
PE-036	INTERCONNECT COMMUNICATION VAULT		Adjusted text boxes to make readable. Changed Signature area
PE-037-2	SIGNAL POLE FOUNDATION MODIFIED "R" POLE PAGE 2 of 3		Add label to SIDE VIEW POLE FOUNDATION – DISH DETAIL - "DISH FOR GROUT"
PE-039	TRAFFIC CONTROL CABINET SCREEN WALL AND COURTESY PAD DETAIL		Change measurements: Signal Box to Power Pedestal distance changed from ~~4' minimum~~ to 2' minimum. Power Pedestal to Power Pedestal distance changed from ~~4'~~ to 2' between Pedestals.
PE-040-1	TRAFFIC SIGNAL		Update material list: Delete under Video Detection: Autoscope Solo Terra/Encore;

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	ALLOWABLE MATERIALS LIST, PAGE 1		Autoscope Solo T.I.P; Autoscope Solo T.A.P.; and Econolite cable 1175-011. Illuminated Street Name Signs a: Fluoresco EDGLITE LED sign or tube LED. Traffic Signal Heads: Satin Black b: McCain ADOT Spec. Type II, III, & XI 12" arms Mounts (Signal Heads); Vehicle LED indications: a. 12" Dialight 430 Series ITE COMPLAINT "XL" Series 433-1210-003XL15 Red Tinted; 433-3230-901XL15 Yel Tinted; 433-2220-001XL15 Grn Tinted.
PE-040-2	TRAFFIC SIGNAL ALLOWABLE MATERIALS LIST, PAGE 2		Update material list: Battery Back-up – remove "a. Tesco 22BBS Pedestal" add "a. Alpha; b. Cabinet 56 outdoor enclosure Guard SAP Card Battery Management; c. ALPHA FXM 1000; d. Cell 195GXL 12V 100Ah". CCTV Camera: remove "a. SN118P ITS Surveyor HD Vicon CCTV Camera" add "Axis P5635-E PTZ Dome Network Camera". Signal Cabinet & Controller – add "a. Econolite 77 Cabinet 16158 Rev. H; b. Econolite Cobalt".
PE-041	HAWK WIRING DETAIL		Updated configuration and diagram information.
PE-042-1	TRAFFIC SIGNAL WIRING DETAIL		Updated configuration and wiring information.
PE-043	TRAFFIC SIGNAL POLE DRILLING		Changed Pole reference in diagram from "~~Q HEAD TYPE XI~~" to "FRG/Q HEAD TYPE XI"
PE-044-1	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING		Changed wording on Pull Box Top detail from "~~CITY OF PEORIA TRAFFIC SIGNAL COMMUNICATIONS~~" to "CITY OF PEORIA TRAFFIC SIGNAL"
PE-044-2	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 1	NOTES: 7	Changed wording from "~~All conductor lengths in pull box are to be trimmed to min of 18" to a max of 24" extending past the top of pull box~~." To "IMSA 25 conductor to be 18" to 24" above the top of conduit."
PE-044-2	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 1	NOTES: 9	Changed wording from "…be used. ~~All wires shall be twisted together prior to insertion into crimp connector. Acorn clamp shall be used in conjunction with a ground rod measured at 3/8" x 8' drove in at center of all pull boxes. Ground rod to be no higher than 4" above bottom of pull box. Blue stake is required~~." To "…be used. Insulation shall be stripped back from all earth (green) #8 conductors to within 4" of top of conduit. All wires shall be twisted together prior to insertion into crimp connector."
PE-044-2	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 1	NOTES: 10	Changed wording from "…~~on pole run side or load side~~." to "…installed with proper direction to indicate load side points towards devise side."

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PE-044-2	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 1	NOTES: 11	Add wording to end. "Upon completion of crimp connection, wire(s) shall be Skotch coated then taped."
PE-044-2	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE1	NOTES: 15	Changed wording: "All unused phases shall ~~still~~ be phase taped ~~correctly~~, cut to an equal length, ~~dipped in scotch coat~~ taped together~~, dipped again,~~ and laid neatly to the bottom of the pull box."
PE-044-3	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 2	NOTES: 16	Changed wording: " For 2, 5, and 7 conductor cables, group together spares in an organized way, cut to equal lengths~~, dipped in scotch coat~~ tape ends together~~, dipped again in scotch coat~~ and lay on bottom of pull box."
PE-044-3	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 2	NOTES: 19	Change "18" to "12" for IMSA cable
PE-044-3	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 2	NOTES: 20	Correct spelling from "role" to "roll"
PE-044-3	TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 2	NOTES: 22	Delete: ~~"For compression fitting stranded wire shall be soldered and giving sufficient time to harden."~~
PE-090	INTERSECTION SIGHT VISIBILITY TRIANGLE		Reformatted detail layout to new format and updated Sight Distance Chart and Notes.
PE-101-1	ALLOWABLE MATERIALS LIST, PAGE 1	Fire Hydrants	Updated List from "~~The only allowable makes, models and manufactures are: AVK, Clow, Jones, and Mueller~~." To "Fire Hydrants Wet Barrel as manufactured by: AVK, Clow, Jones, and Mueller. Break-off check valves shall be Clow Model LB400 or AVK Series 2488 Flowguard II."
PE-241-3	STANDARD DUAL CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.

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PE-241-4	STANDARD DUAL CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 3. Refer to PE-241-1 for Construction Notes. 4. Refer to PE-241-2 for slope requirements.
PE-241-5A	STANDARD SINGLE CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.
PE-241-5B	STANDARD SINGLE CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.
PE-241-5C	STANDARD SINGLE CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.
PE-241-6	STANDARD SINGLE CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.
PE-241-7	STANDARD SINGLE CURB RAMP (DIMENSIONS		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-2 for slope requirements.
PE-241-9	COMPACT DUAL CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-8 for slope requirements.
PE-241-11	COMPACT SINGLE CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes. 2. Refer to PE-241-10 for slope requirements.
PE-241-12	COMPACT DUAL CURB RAMP (DIMENSIONS)		Added the following notes: NOTES: 1. Refer to PE-241-1 for Construction Notes.

City of Peoria
Summary of Updates to Infrastructure Design Guidelines 2015 Changes in 2016

CHAPTER	SUB-SECTION	ITEM	MODIFICATION
			2. Refer to PE-241-2 for slope requirements.
PE-270	WATER VALVE FRAME AND COVER	Title	Title changed from "WATER VALVE ADJUSTMENT" to "WATER VALVE FRAME AND COVER"
PE-270	WATER VALVE FRAME AND COVER	Add to Note	"LOCKING DEBRIS CAP DC825 LD-8" (as required)
PE-270	WATER VALVE FRAME AND COVER	Remove Note 2)	Remove following note: "2) LOCKING LID TO BE AMPRO LL800-WA"
PE-360-1	RESIDENTIAL FIRE HYDRANT INSTALLATION	3	Changed wording: "BREAK-OFF CHECK VALVE ~~SHALL BE CLOW MODEL 400A OR APPROVED EQUAL~~ – SEE DETAIL PE-101.
PE-360-1	RESIDENTIAL FIRE HYDRANT INSTALLATION	4	Changed wording: "THE 6" ~~INCH~~ GATE…"
PE-360-1	RESIDENTIAL FIRE HYDRANT INSTALLATION	7	Changed wording: from "~~MINIMUM 3 FOOT DIAMETER CLEARANCE AROUND HYDRANT~~" to "CLEARANCE PER DETAIL PE-361"
PE-360-1	RESIDENTIAL FIRE HYDRANT INSTALLATION	10	Changed wording: "INSTALL FIRE HYDRANT MARKER PER ~~PEORIA STANDARD DETAIL PE-362~~ MAG DETAIL NO. 122"
PE-360-1	RESIDENTIAL FIRE HYDRANT INSTALLATION	11	Changed wording: "CITY OWNED HYDRANT SHALL BE PAINTED ~~CATERPILLAR YELLOW~~ CATERPILLAR OLD YELLOW #1 OR SAFETY YELLOW."
PE-360-2	COMMERCIAL FIRE HYDRANT INSTALLATION	3	Changed wording: "BREAK-OFF CHECK VALVE ~~SHALL BE CLOW MODEL 400A OR APPROVED EQUAL~~ – SEE DETAIL PE-101.
PE-360-2	COMMERCIAL FIRE HYDRANT INSTALLATION	7	Changed wording: from "~~MINIMUM 3' DIAMETER CLEARANCE AROUND HYDRANT~~" to "CLEARANCE PER DETAIL PE-361"
PE-360-2	COMMERCIAL FIRE HYDRANT INSTALLATION	11	Changed wording: "CITY OWNED HYDRANT ~~TO~~ SHALL BE PAINTED CATERPILLAR OLD YELLOW #1 OR SAFETY YELLOW."

CITY OF PEORIA

STANDARD DETAIL INDEX
(PAGE 1 OF 4)

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PE-010-3	MINOR ARTERIAL STREET
PE-010-4	MAJOR COLLECTOR ROADWAY
PE-010-5	MINOR COLLECTOR ROADWAY
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PE-011-2	PAVEMENT MARKING MANUAL, PAGE 2
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PE-011-5	PAVEMENT MARKING MANUAL, PAGE 5
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CITY OF PEORIA

STANDARD DETAIL INDEX
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CITY OF PEORIA

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CITY OF PEORIA

STANDARD DETAIL INDEX
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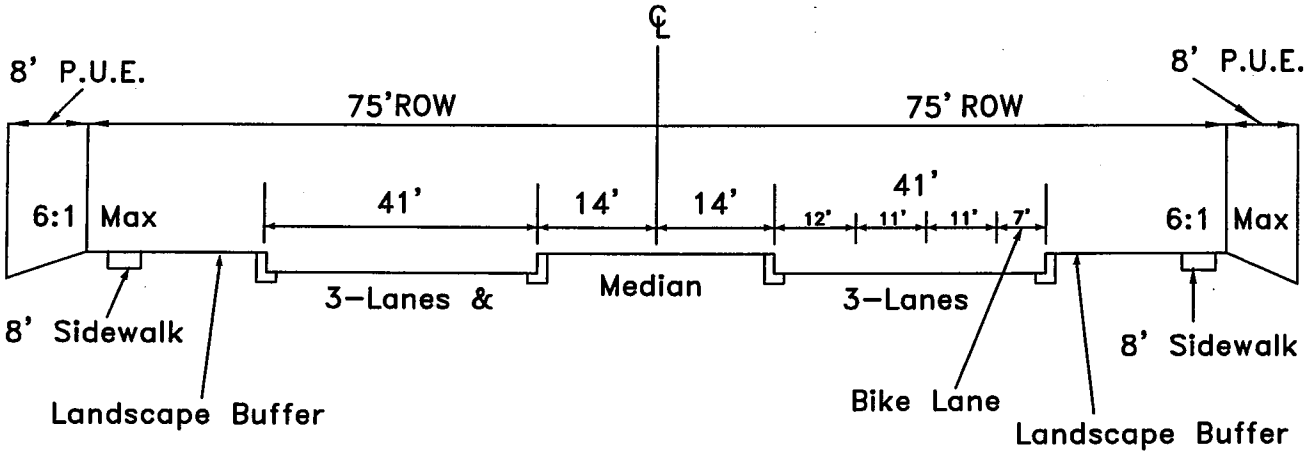
CITY OF PEORIA
STANDARD DETAIL PE-010-1
PARKWAY SECTION

APPROVALS:

CITY ENGINEER — DATE 5/2/13

FIRE CHIEF — DATE 3-6-12

PARKWAY 150' ROW



Notes:

1. Additional ROW may be required where turn lanes, driveways, or
2. Sidewalk may be meandering.
3. All slopes within the ROW and PUE shall be 6:1 max.

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02/11/2013

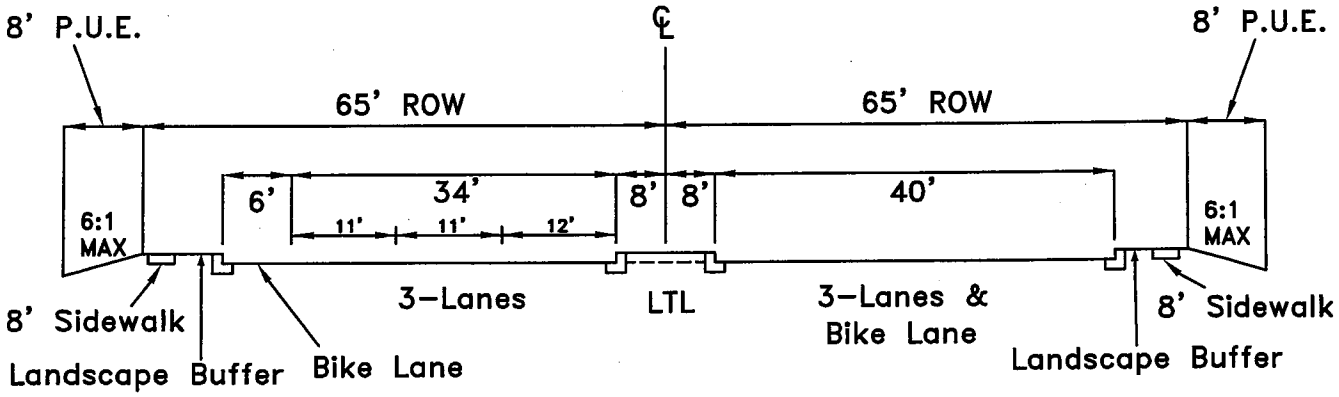
CITY OF PEORIA
STANDARD DETAIL PE-010-2
MAJOR ARTERIAL STREET SECTION

APPROVALS:

CITY ENGINEER — DATE 5/21/13

FIRE CHIEF — DATE 3-6-13

MULTI-LANE ROADWAY 130' ROW
Divided – 6 Travel Lanes
(6-Plus Right and Left Turn Lanes)



Notes:

1. Curb radii shall be 35' unless otherwise approved by the City Traffic Engineer.
2. At intersections, ROW shall increases to 150' for the first 500', measured from the centerline of the intersection.
3. Additional ROW may be required where additional turn lanes driveways, or bus, bicycle, or pedestrian facilities are required.
4. Sidewalks may be meandering.
5. All slopes within the ROW and PUE shall be 6:1 max.

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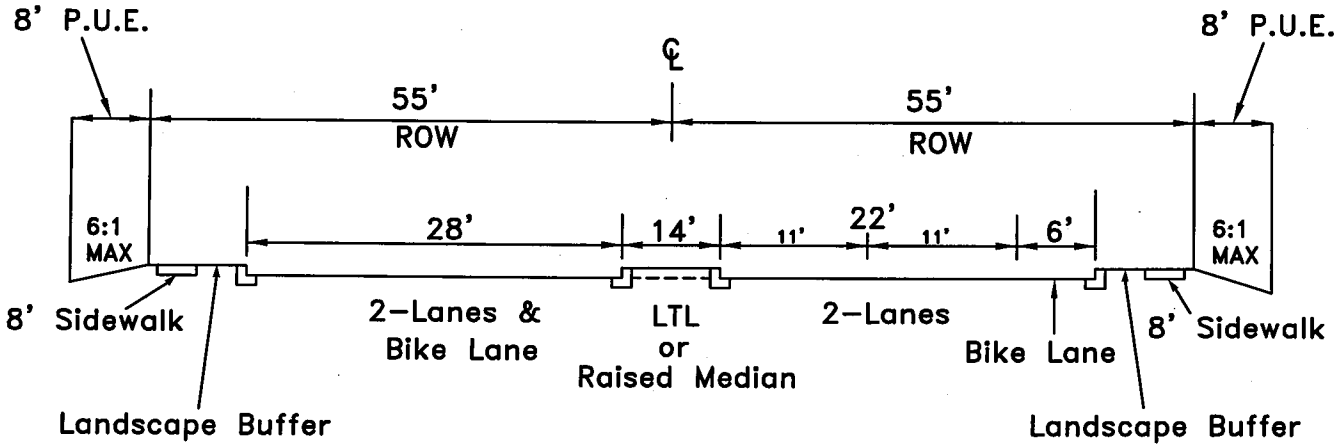
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-010-3
MINOR ARTERIAL STREET SECTION

APPROVALS:

CITY ENGINEER — DATE 5/21/13

FIRE CHIEF — DATE 5-6-13



Notes:

1. Curb radii shall be 30' unless otherwise approved by the City Traffic Engineer.
2. At intersections, ROW increases to 130' for the first 500', measured from the centerline of the intersection.
3. Additional ROW may be required where additional turn lanes driveways or bus, bicycle, or pedestrian facilities are required.
4. Sidewalks may be meandering.
5. All slopes within the ROW and PUE shall be 6:1 max.

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02/11/2013

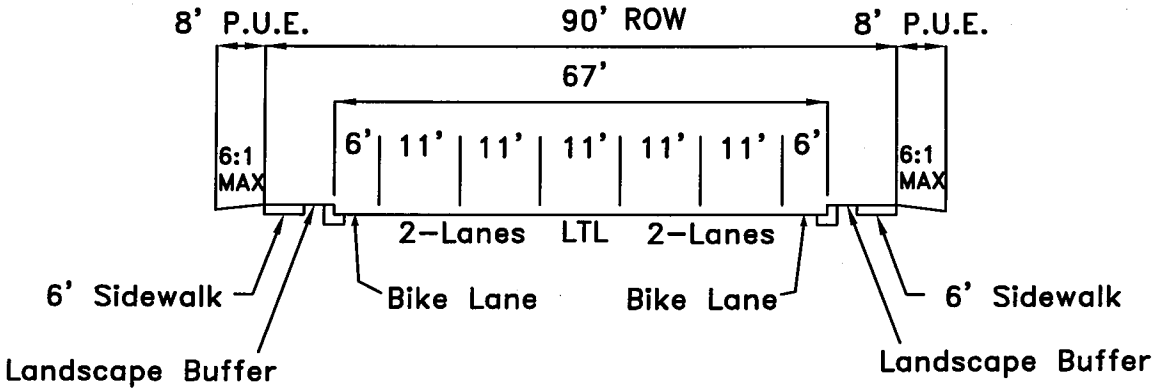
CITY OF PEORIA
STANDARD DETAIL PE-010-4
MAJOR COLLECTOR STREET SECTION

APPROVALS:

CITY ENGINEER — DATE 5/21/13

FIRE CHIEF — DATE 8-6-13

FOUR-LANE ROADWAY
Undivided
(Residential areas with backage and adjacent commercial and industrial areas)



Notes:

1. Corner radii shall be 30' unless otherwise approved by the City Traffic Engineer.
2. Additional ROW may be required where turn lanes, driveways, or bus, bicycle, or pedestrian facilities are required.
3. Sidewalks may be meandering.
4. All slopes within the ROW and PUE shall be 6:1 max.

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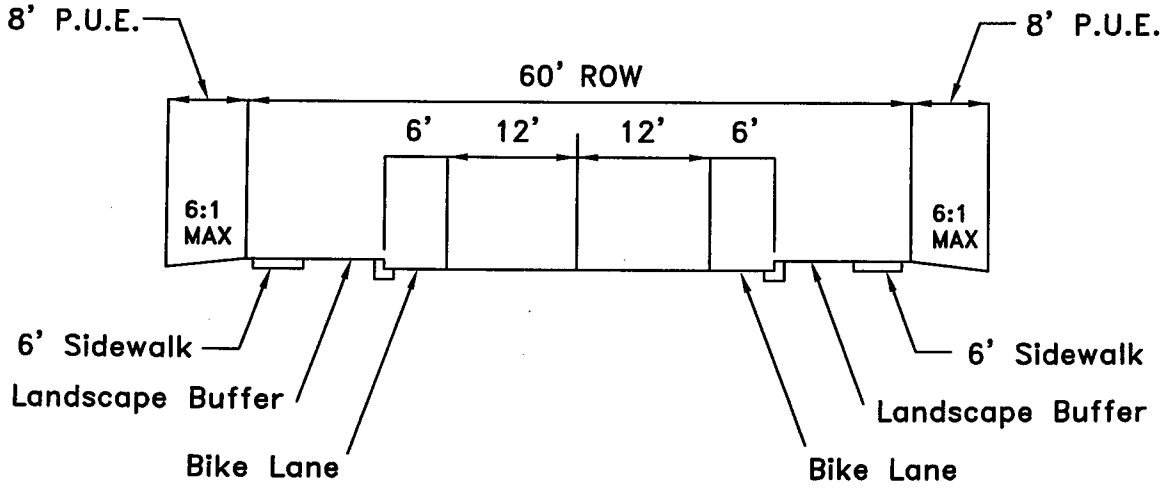
02/11/2013

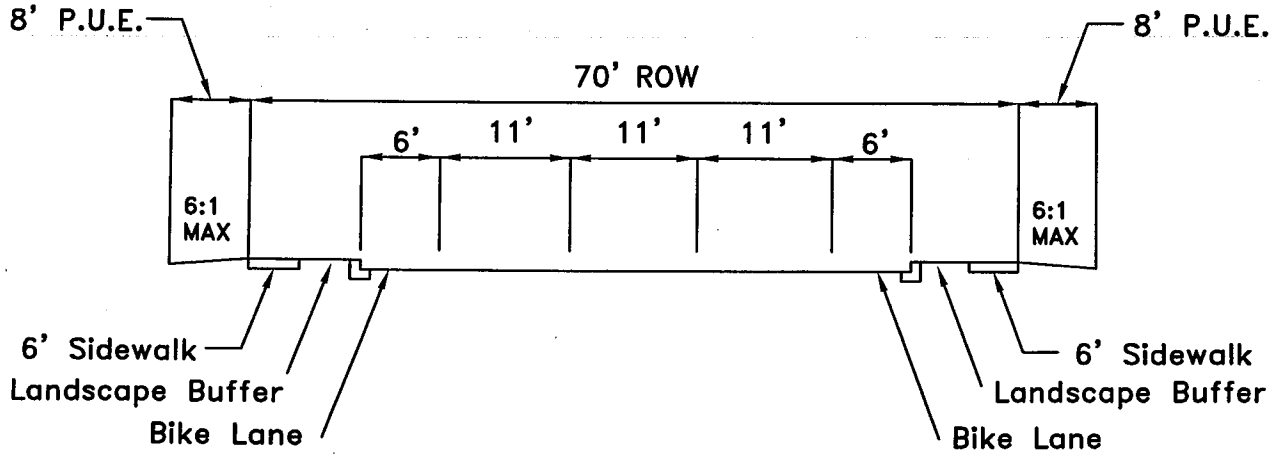
CITY OF PEORIA
STANDARD DETAIL PE-010-5
MINOR COLLECTOR STREET SECTION

APPROVALS:

CITY ENGINEER — DATE 5/21/13

FIRE CHIEF — DATE 3-6-13





Notes:

1. Corner radii shall be 25' unless otherwise approved by the City Traffic Engineer.
2. Additional ROW may be required where turn lanes, driveways, or bus, bicycle, or pedestrian facilities are required.
3. Sidewalks may be meandering.
4. All slopes within the ROW and PUE shall be 6:1 max.

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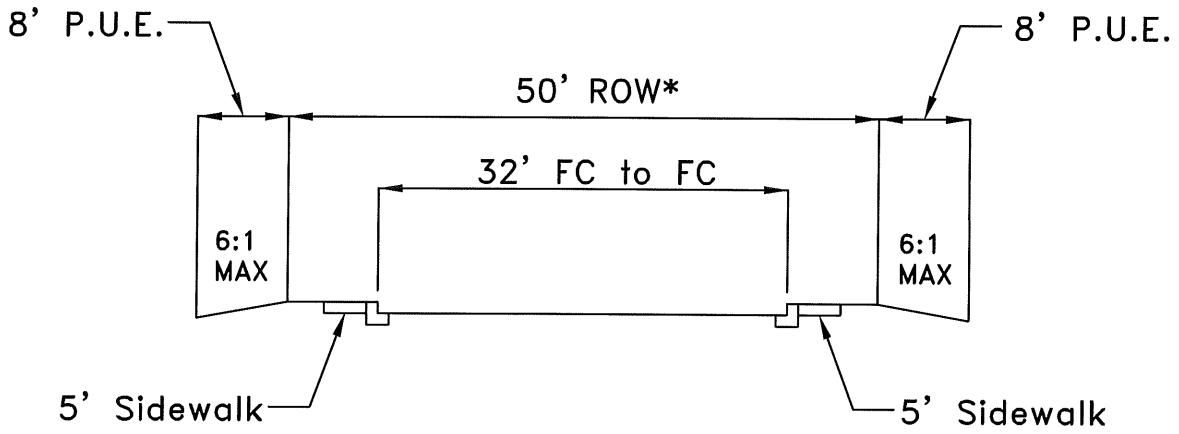
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-010-6
LOCAL STREET SECTION

APPROVALS:

ENGINEERING DIRECTOR	1/26/15 DATE	PW-UTILITIES DIRECTOR	01-27-2015 DATE
FIRE CHIEF	1-27-15 DATE		



GENERAL PLAN CIRCULATION ELEMENT
Policy B-3e:
Discourage private streets unless the Peoria City Council determines that the streets meet the adopted standards and that the benefit to the City exceeds the liability. Any private street permitted must meet all access and connectivity standards established by the City.

*Private streets shall be dedicated as tracts.

Notes:

1. Curb radii shall be 20' unless otherwise approved by the Engineering Director. All slopes within the ROW and PUE shall be 6:1 max.

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1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-011-1
PAVEMENT MARKING MANUAL, PAGE 1

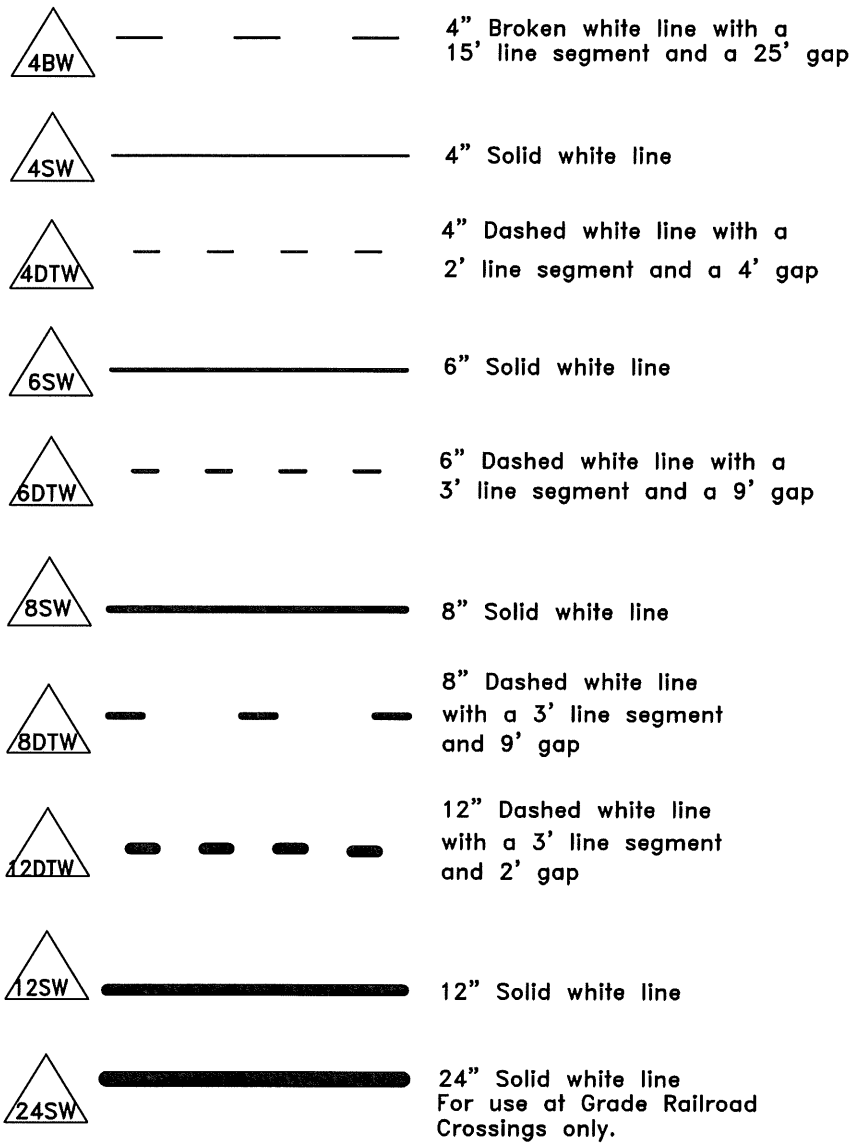
APPROVALS:

ENGINEERING DIRECTOR — DATE: 1/4/15

PW-UTILITIES DIRECTOR — DATE: 01-15-2015

WHITE PAINT SYMBOLS

LEGEND:



NOTES:

1. Longitudinal line markings shall be installed using water-based paint applied at a minimum of .15 mil thickness.
2. Short-line markings, including crosswalks, stop bars, chevrons, and crosshatch markings shall be installed using alkyd thermoplastic material applied at a minimum .90 mil thickness or 3M Stamark Pavement Marking Tape.

1/8/2015

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CITY OF PEORIA
STANDARD DETAIL PE-011-2
PAVEMENT MARKING MANUAL, PAGE 2

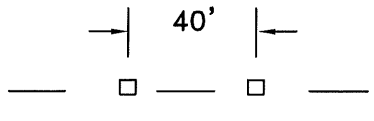
APPROVALS:

ENGINEERING DIRECTOR — DATE 1/14/15

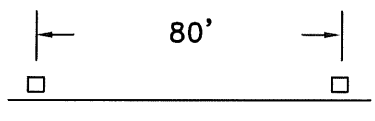
PW-UTILITIES DIRECTOR — DATE 01-15-2015

WHITE PAINT SYMBOLS
WITH RAISED PAVEMENT MARKERS

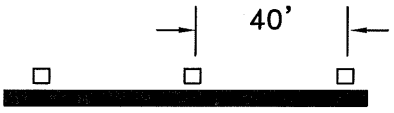
LEGEND:



4" Broken white line with a 15' line segment and a 25' gap with type 'G' rpm's @ 40' spacing



4" Solid white line with type 'G' rpm's @ 80' spacing
(For curved sections of roadway use 40" spacing)



8" Solid white line with type 'G' rpm's @ 40' spacing

Note:
1. Raised pavement markers shall be used on arterial streets with no adjacent street lighting or where otherwise approved by the City Traffic Engineer.
2. Longitudinal line markings shall be installed using water-based paint applied at a minimum of .15 mil thickness.
3. Short-line markings, including crosswalks, stop bars, chevrons, and crosshatch markings shall be installed using alkyd thermoplastic material applied at a minimum .90 mil thickness or 3M Stamark Pavement Marking Tape.

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1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-011-3
PAVEMENT MARKING MANUAL, PAGE 3

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE

RAISED PAVEMENT MARKER TYPES

LEGEND:

Type A = White (non reflective)

Type AY = Yellow (non reflective)

Type D = Yellow, two-way (reflective)

Type G = Clear, one-way (reflective)

Type H = Yellow, one-way (reflective)

Type J = White, raised domes (reflective)

TypeJR = Yellow, raised domes (reflective)

Notes:
1. Raised pavement markers shall be placed so that the reflective face of the marker is facing and perpendicular to traffic.
2. Raised pavement markers shall be used on arterial streets with no adjacent street lighting or where otherwise approved by the City Traffic Engineer.

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02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-011-4
PAVEMENT MARKING MANUAL, PAGE 4

APPROVALS:

ENGINEERING DIRECTOR — 1/14/15 — DATE

PW-UTILITIES DIRECTOR — 01-15-2015 — DATE

YELLOW PAINT SYMBOLS

LEGEND:

4BY	4" Broken yellow line with a 15' line segment and a 25' gap
4SY	4" Solid yellow line
4SBY	4" Solid broken yellow, one solid, one broken with a 15' line segment and a 25' gap
4DY	4" Double yellow line
4DTY	4" Dashed yellow line with a 2' line segment and 4' gap
8SY	8" Solid yellow line
12SY	12" Solid yellow line

Notes:

1. Longitudinal line markings shall be installed using water-based paint applied at a minimum of .15 mil thickness.
2. Short-line markings, including crosswalks, stop bars, chevrons, and crosshatch markings shall be installed using alkyd thermoplastic material applied at a minimum .90 mil thickness or 3M Stamark Pavement Marking Tape.

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1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-011-5
PAVEMENT MARKING MANUAL, PAGE 5

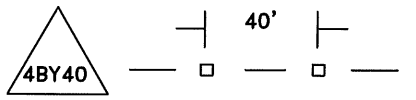
APPROVALS:

ENGINEERING DIRECTOR — DATE: 1/14/15

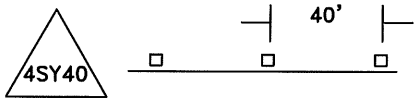
PW-UTILITIES DIRECTOR — DATE: 01-15-2015

YELLOW PAINT SYMBOLS WITH RAISED PAVEMENT MARKERS

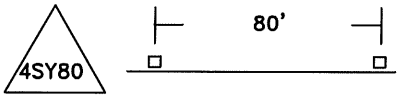
LEGEND:



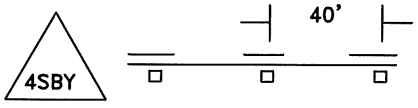
4" Broken yellow line with a 15' line segment and a 25' gap with type 'D' rpm's @ 40' spacing



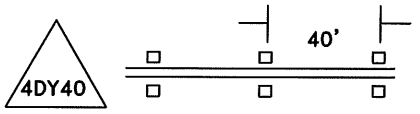
4" Solid yellow line with type "D" rpm's @ 40' spacing (For curved sections of roadway use 20' spacing.)



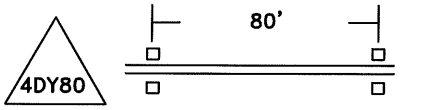
4" Solid yellow line with type "D" rpm's @ 80' spacing (For straight sections of roadway)



4" Solid broken yellow line, one solid, one broken with a 15' line segment and a 25' gap, with type "D" rpm's @ a 40' spacing (broken) type "D" rpm's @ a 20' spacing (solid)



4" Double Yellow with type 'D' rpm's @ 40' spacing



4" Double yellow line with type 'D' rpm's @ 80' spacing

Notes:
1. Longitudinal line markings shall be installed using water-based paint applied at a minimum of .15 mil thickness.
2. Short-Line markings, including crosswalks, stop bars, chevrons, and crosshatch markings shall be installed using alkyd thermoplastic material applied at a minimum .90 mil thickness or 3M Stamark Pavement Marking Tape.

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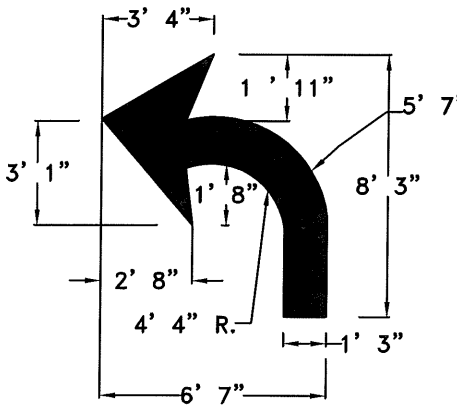
1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-013
ARROW & BIKE SYMBOLS

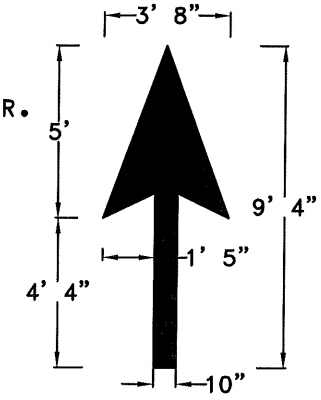
APPROVALS:

ENGINEERING DIRECTOR — DATE: 1/14/15

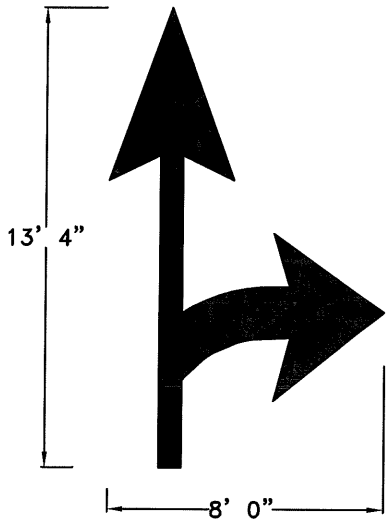
PW-UTILITIES DIRECTOR — DATE: 01-15-2015



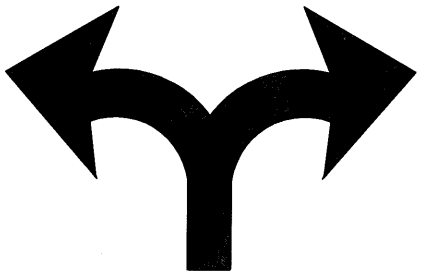
TURN LANE–USE ARROW



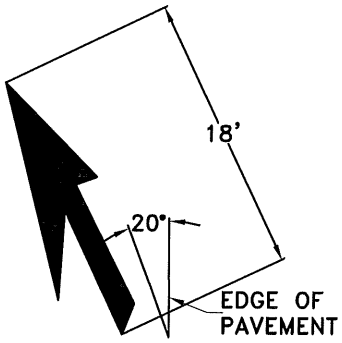
THROUGH LANE–USE ARROW



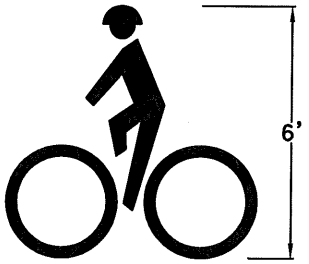
TURN AND THROUGH LANE–USE ARROW



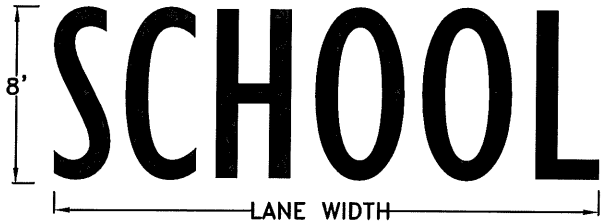
RIGHT/LEFT TURN LANE–USE ARROW



LANE–REDUCTION ARROW



BIKE SYMBOL



SCHOOL LEGEND

NOTES:
1. WORD SYMBOL AND OTHER LEGEND MARKINGS SHALL BE INSTALLED IN 3M STAMARK PAVEMENT MARKING TAPE.
2. BIKE SYMBOL SHALL FACE THROUGH TRAVEL LANES.
3. SCHOOL LEGENDS MAY BE INSTALLED AT SCHOOLS ABUTTING ARTERIAL STREETS IF APPROVED BY THE CITY TRAFFIC ENGINEER. IF USED, SCHOOL STENCILS SHALL BE INSTALLED IN CLOSE PROXIMITY TO SCHOOL ADVANCE WARNING SIGNS IN EACH THROUGH LANE ON THE ARTERIAL STREET, INSTALLED IN A 40' STAGGERED PATTERN.

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1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-014
CROSSWALK AND STOP LINE

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE

NOTES:

1. MARKED CROSSWALKS AND STOP LINES SHALL BE INSTALLED At SIGNALIZED INTERSECTIONS THAT INCLUDE PEDESTRIAN SIGNAL INDICATIONS.

2. CROSSWALKS AND/OR STOP LINES SHOULD NOT BE INSTALLED AT UNSIGNALIZED INTERSECTIONS UNLESS JUSTIFIED BASED UPON ENGINEERING JUDGEMENT AT THE DIRECTION OF THE CITY TRAFFIC ENGINEER.

3. MARKED CROSSWALKS SHALL BE INSTALLED IN 12" SOLID WHITE OR YELLOW (FOR 15MPH SCHOOL CROSSINGS ONLY) AT 10' WIDTH.

4. AT SIGNALIZED INTERSECTIONS, STOP LINES SHOULD BE INSTALLED 4' IN ADVANCE OF THE MARKED CROSSWALKS.

5. IF USED AT UNSIGNALIZED INTERSECTIONS WITHOUT MARKED CROSSWALKS, STOP LINES SHOULD BE PLACED AT THE DESIRED STOPPING POINT THAT AFFORDS THE BEST VISIBILITY, BUT SHOULD NOT BE PLACED MORE THAN 30 FEET OR LESS THAN FOUR FEET FROM THE NEAREST EDGE OF THE INTERSECTING TRAVELED WAY.

6. LADDER STYLE CROSSWALKS MAY BE INSTALLED AT THE DIRECTION OF THE CITY TRAFFIC ENGINEER AT CROSSINGS WHERE HIGH PEDESTRIAN VOLUMES ARE TYPICAL OR EXPECTED.

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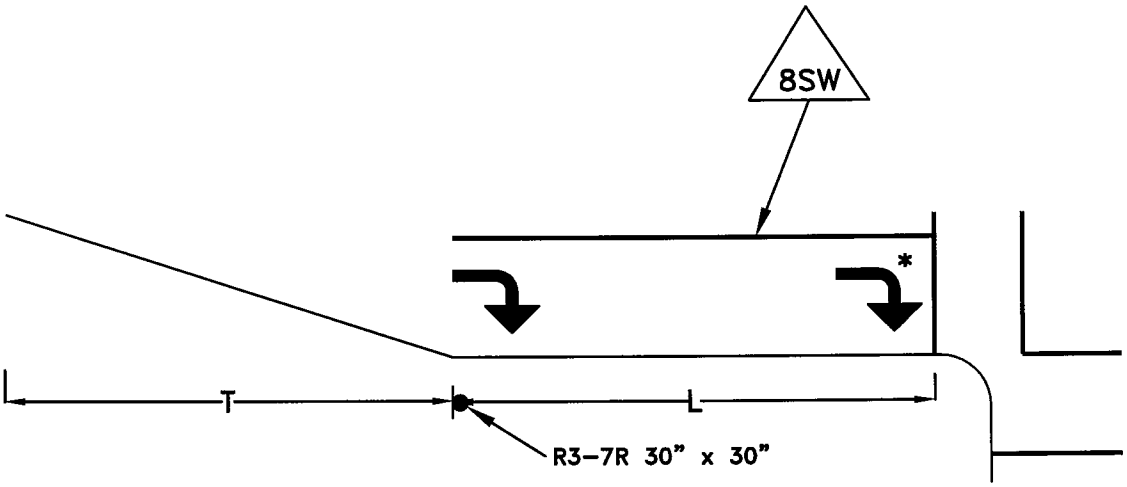
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-015-1
RIGHT TURN LANES

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



NOTES:

T = Taper shall not exceed 12:1. 100' taper is typical for a standard 12' turn lane.

L = Length to be determined by engineering judgement at the direction of the City Traffic Engineer. 100'–150' length is typical, but shall not be less than 50'.

*If a turn lane is longer than 250', a second arrow symbol shall be installed at the end of the turn lane.

–If a turn lane is wider than 18', a carrot shall be installed.

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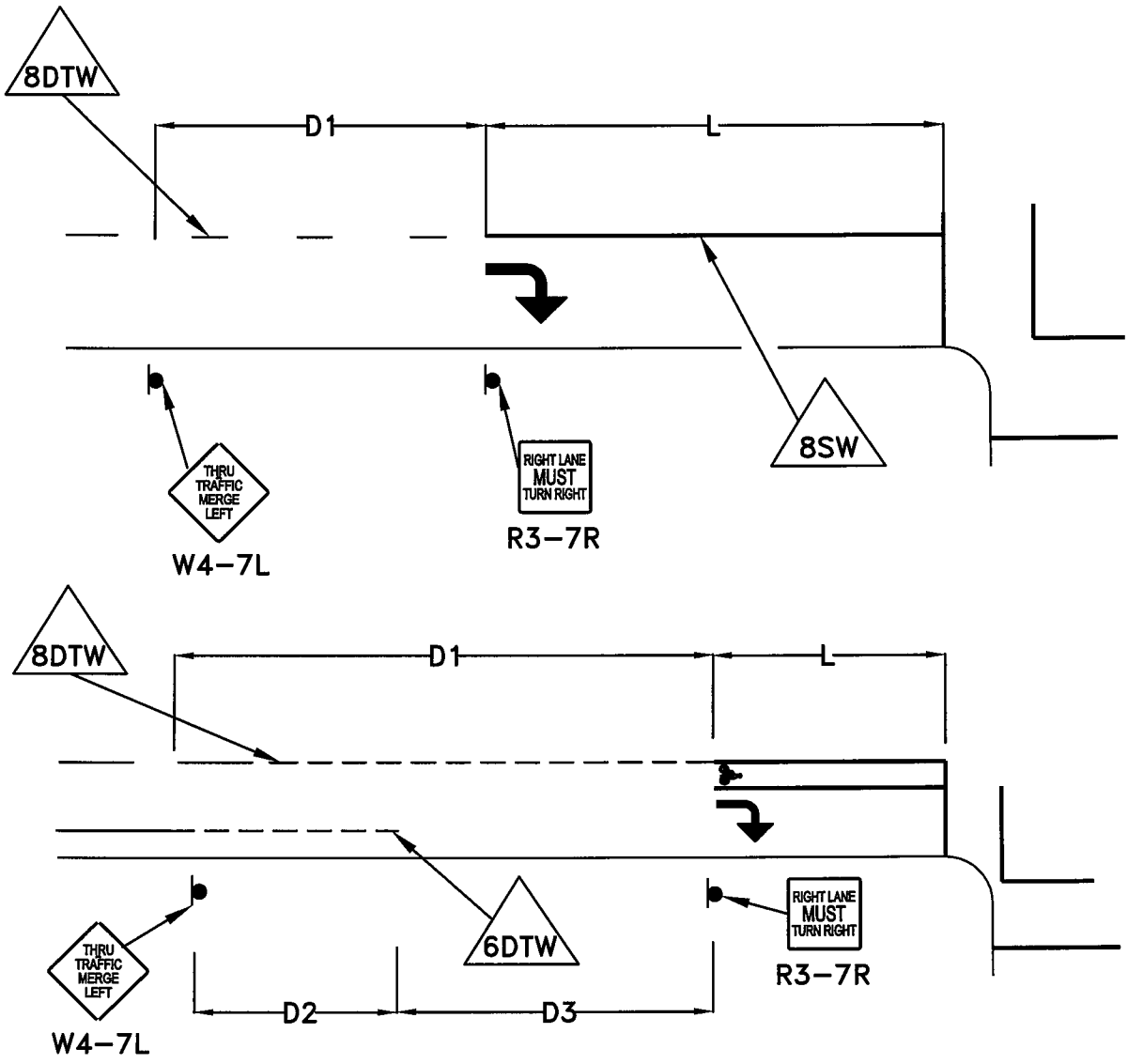
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-015-2
RIGHT TURN DROP LANES

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



NOTES:

D1 = Distance needed for motor vehicles to merge left shall not be less than a distance of seven times the posted speed limit in feet.

D2 & D3 = Distance needed for bicyclists to merge left to be determined by engineering judgement at the direction of the City Traffic Engineer.

L = Length to be determined by engineering judgement at the direction of the City Traffic Engineer. 100'–150' length is typical, but shall not be less than 50'.

–If a turn lane is longer than 250', a second arrow symbol shall be installed at the end of the turn lane.

–If a turn lane is wider than 18', a carrot shall be installed.

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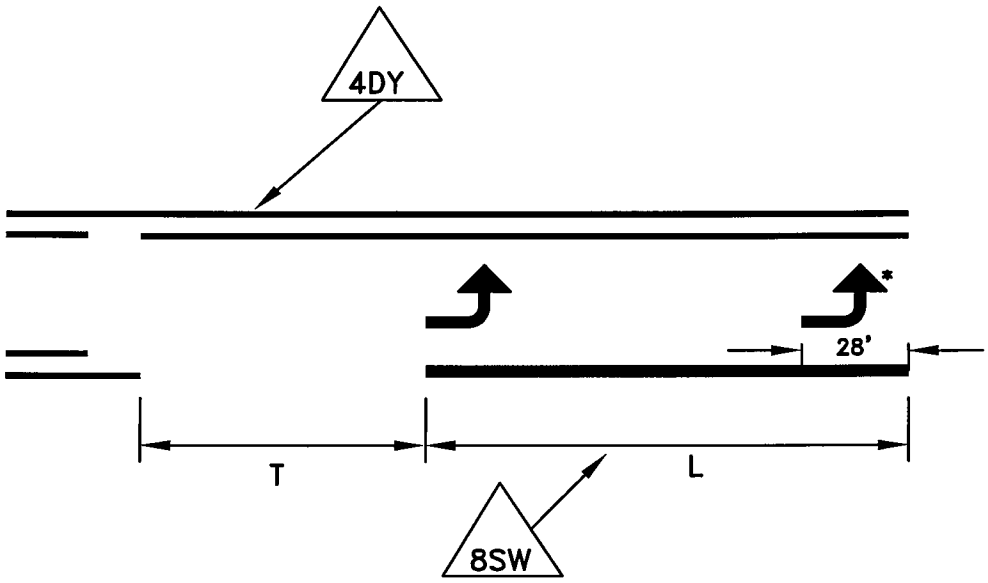
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-016
LEFT TURN LANES

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



NOTES:

T = Transition of 100' is typical, but may be increased based on engineering judgement at the direction of the City Traffic Engineer.

L = Length to be determined by engineering judgement at the direction of the City Traffic Engineer. 100' – 150' length is typical, but shall not be less than 50'.

*If a turn lane is longer than 250', a second arrow symbol shall be installed at the end of the turn lane.

– If a turn lane is wider than 18', a carrot shall be installed.

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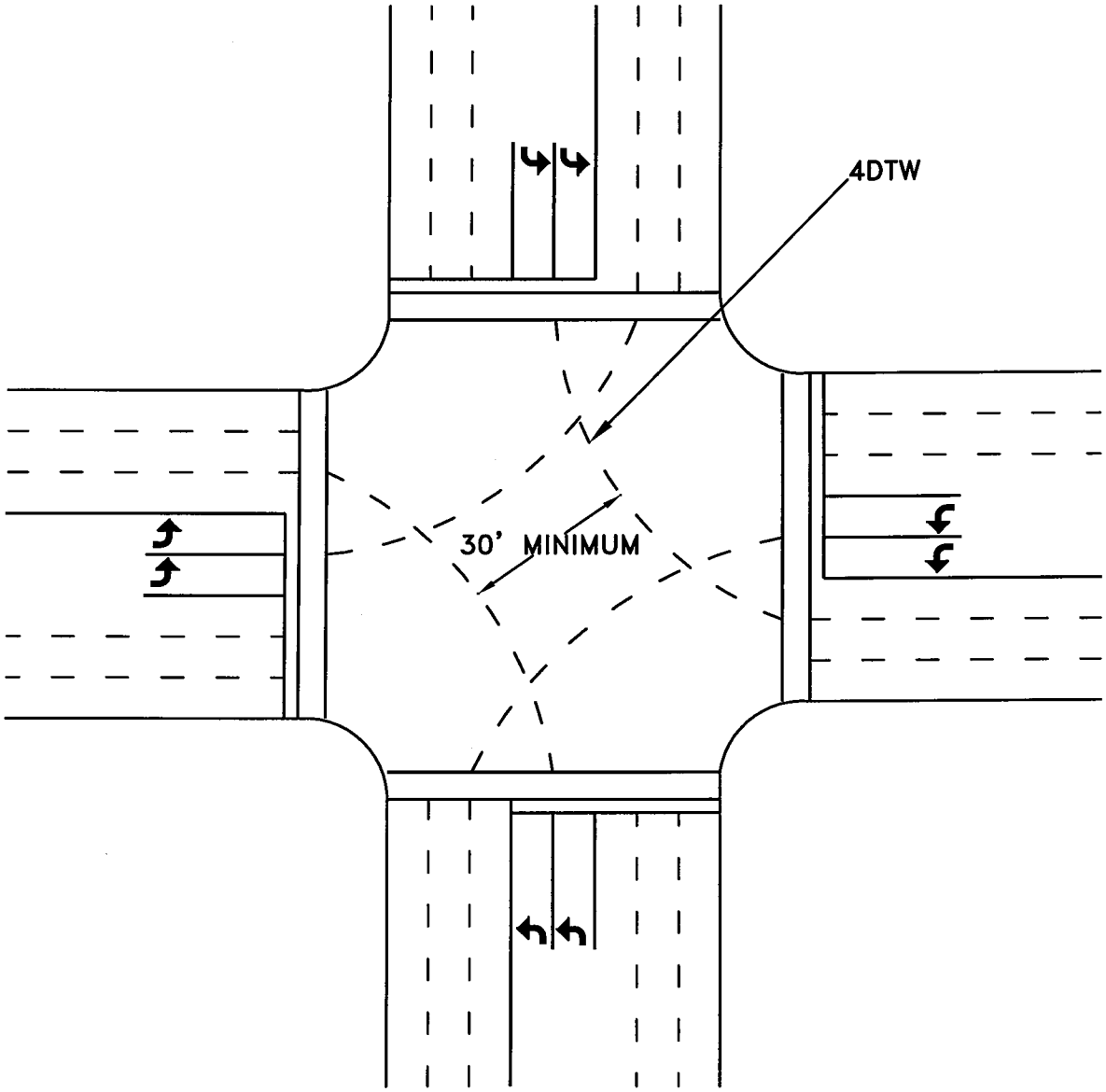
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-017
DUAL LEFT TURN LANES

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



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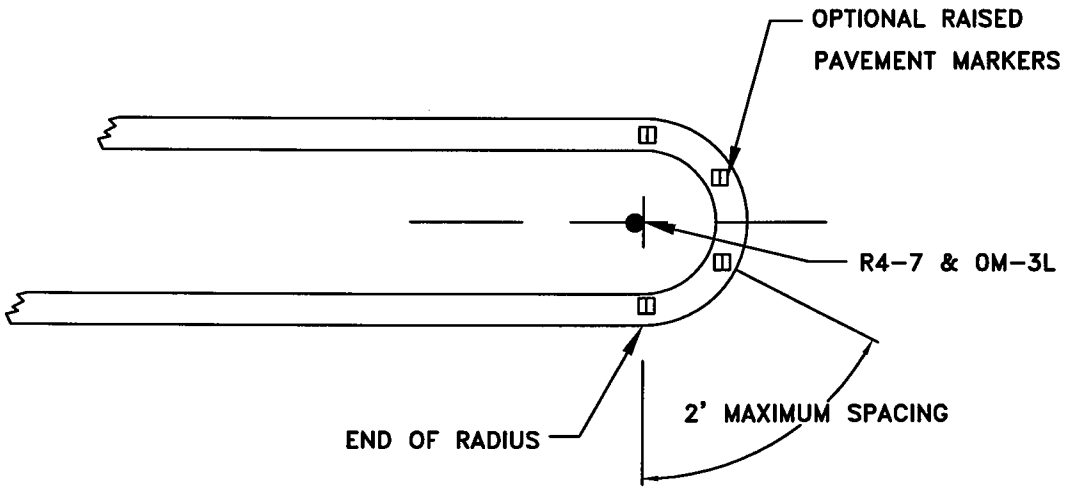
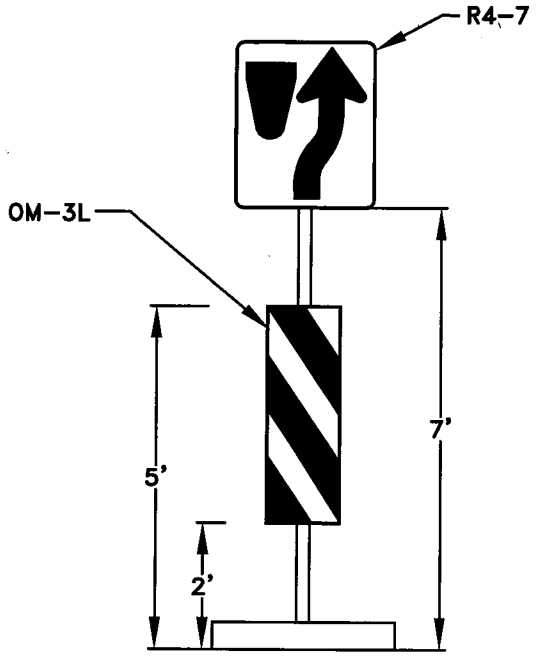
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-018
TYPICAL MEDIAN NOSE MARKINGS

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE





NOTES:
1. THE USE OF R4-7 SIGNS SHOULD BE MINIMIZED BY LIMITING INSTALLATION TO THE BEGINNING OF A SERIES OF MEDIANS AND AT MEDIAN BREAKS AT ARTERIAL AND COLLECTOR STREETS.

2. RAISED PAVEMENT MARKERS MAY BE USED TO PROVIDE ADDITIONAL VISIBILITY TO MEDIAN NOSES. IF USED, THE RAISED PAVEMENT MARKERS SHALL BE INSTALLED ON THE TOP OF THE CURB, USING EITHER TYPE 'D' OR 'G', DEPENDING ON APPLICATION WITH A MINIMUM QUALITY OF FOUR.

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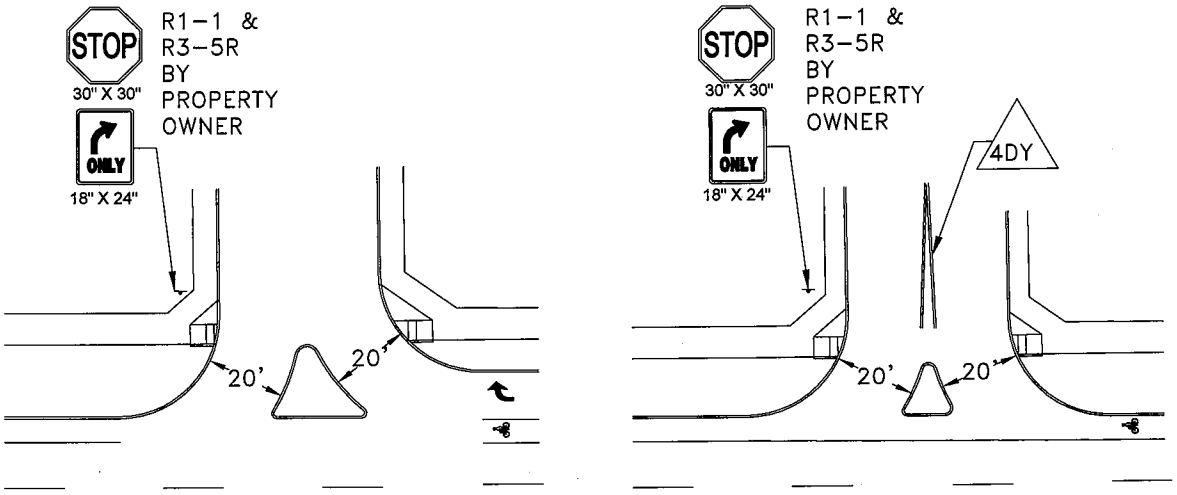
02/13/2013

CITY OF PEORIA
STANDARD DETAIL PE-021-1
TURN DIVERTERS – RIGHT IN/RIGHT OUT

APPROVALS:

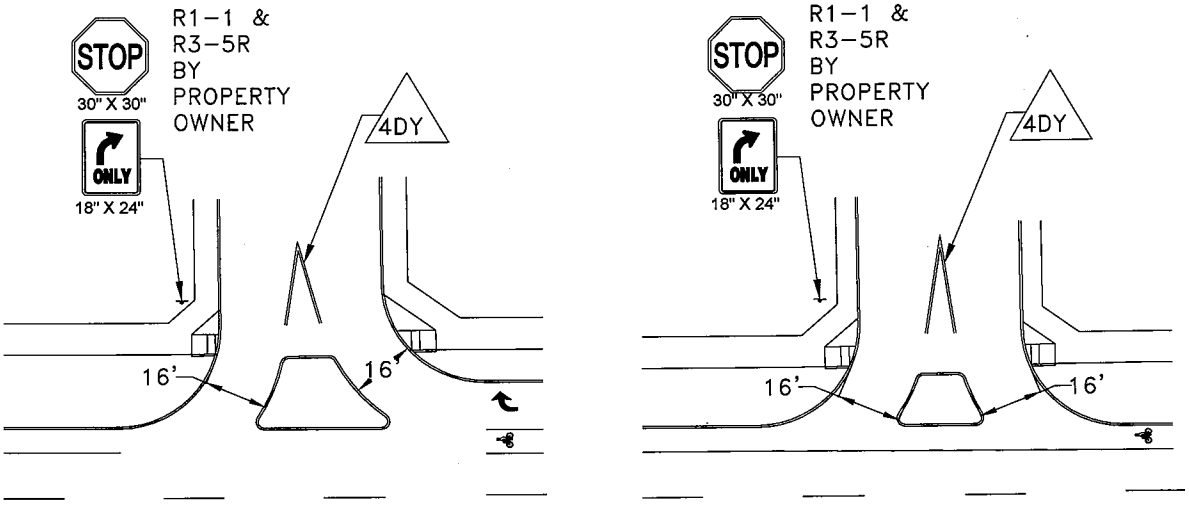
CITY ENGINEER — DATE 5/21/13

TYPICAL TURN DIVERTERS



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE A AND SHALL BE PAINTED RED.

NARROWED ACCESS TURN DIVERTERS*



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE C AND SHALL BE PAINTED RED.
MAY BE USED ON PUBLIC AND PRIVATE STREETS AND PRIVATE DRIVEWAYS, INCLUDING PE-251-1 & 2 (DELETING RAMPS).
*REQUIRES APPROVAL FROM CITY TRAFFIC ENGINEER AND FIRE MARSHALL.

02/11/2013

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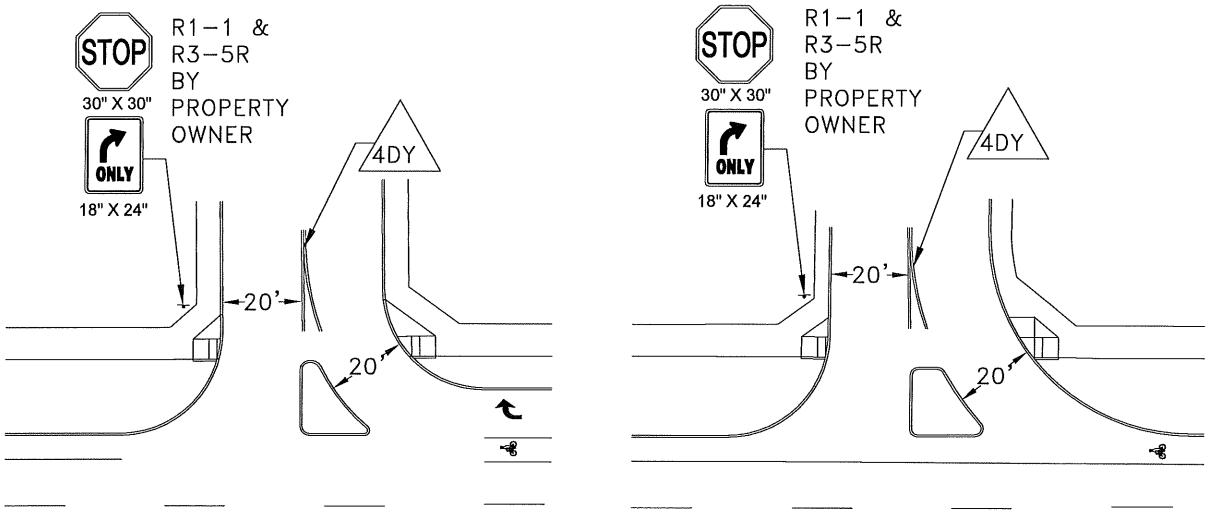
CITY OF PEORIA
STANDARD DETAIL PE-021-2
TURN DIVERTERS – RIGHT IN/FULL ACCESS OUT

APPROVALS:

ENGINEERING DIRECTOR — DATE: 1/14/15

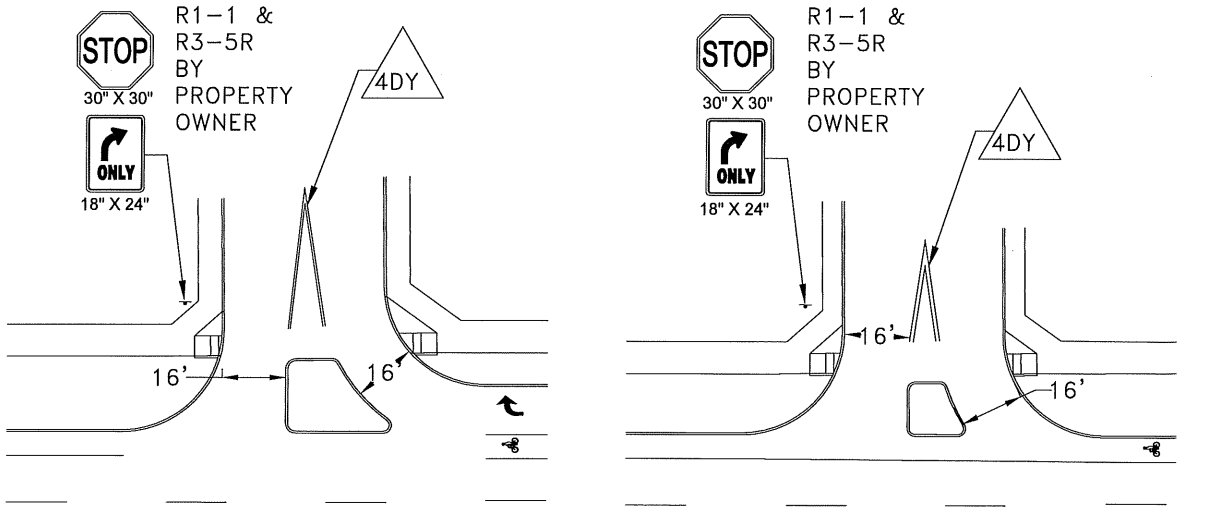
PW-UTILITIES DIRECTOR — DATE: 01-15-2015

TYPICAL TURN DIVERTERS



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE A AND SHALL BE PAINTED RED.

NARROWED ACCESS TURN DIVERTERS*



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE C AND SHALL BE PAINTED RED.
MAY BE USED ON PUBLIC AND PRIVATE STREETS AND PRIVATE DRIVEWAYS, INCLUDING PE-251-1 & 2 (DELETING RAMPS).
*REQUIRES APPROVAL FROM CITY TRAFFIC ENGINEER AND FIRE MARSHALL.

1/8/2015

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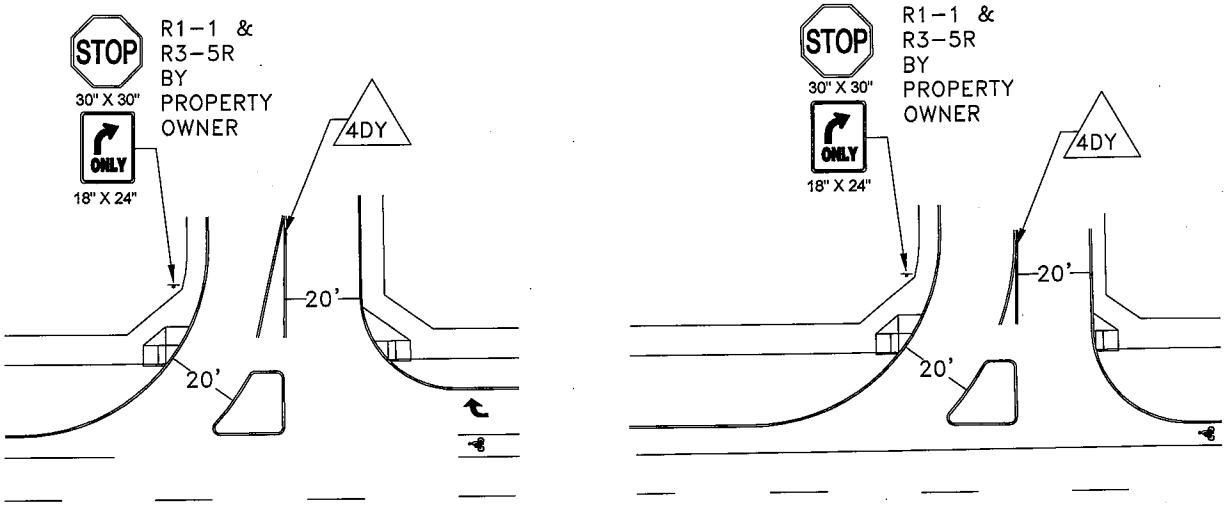
CITY OF PEORIA
STANDARD DETAIL PE-021-3
TURN DIVERTERS – FULL ACCESS IN/RIGHT OUT

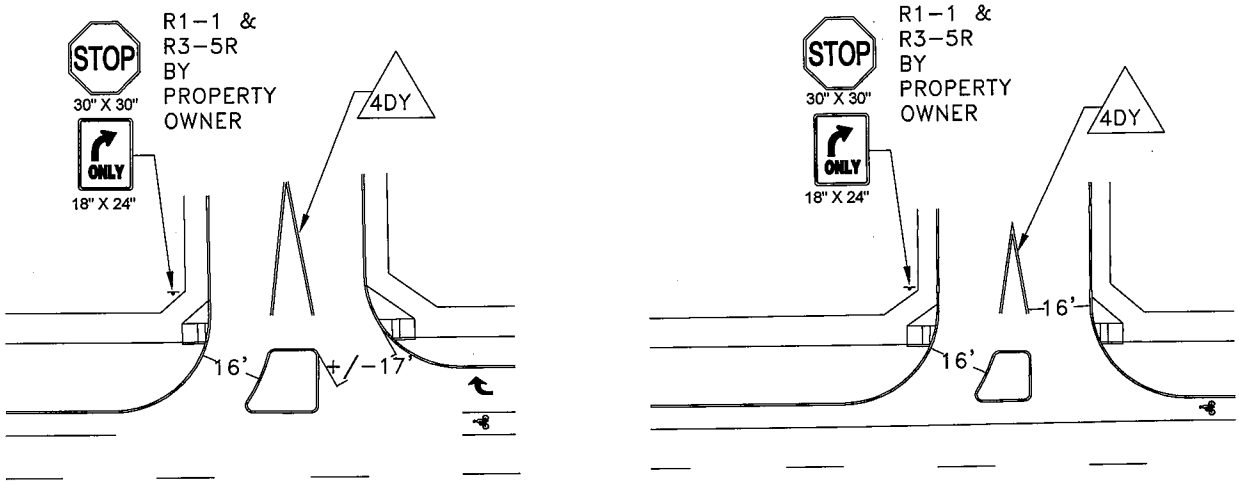
APPROVALS: _____ 5/21/13
CITY ENGINEER DATE

TYPICAL TURN DIVERTERS



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE A AND SHALL BE PAINTED RED.

NARROWED ACCESS TURN DIVERTERS*



NOTE: TURN DIVERTER CURB SHALL BE MAG 220-1 TYPE C AND SHALL BE PAINTED RED.
MAY BE USED ON PUBLIC AND PRIVATE STREETS AND PRIVATE DRIVEWAYS, INCLUDING PE-251-1 & 2 (DELETING RAMPS).
*REQUIRES APPROVAL FROM CITY TRAFFIC ENGINEER AND FIRE MARSHALL.

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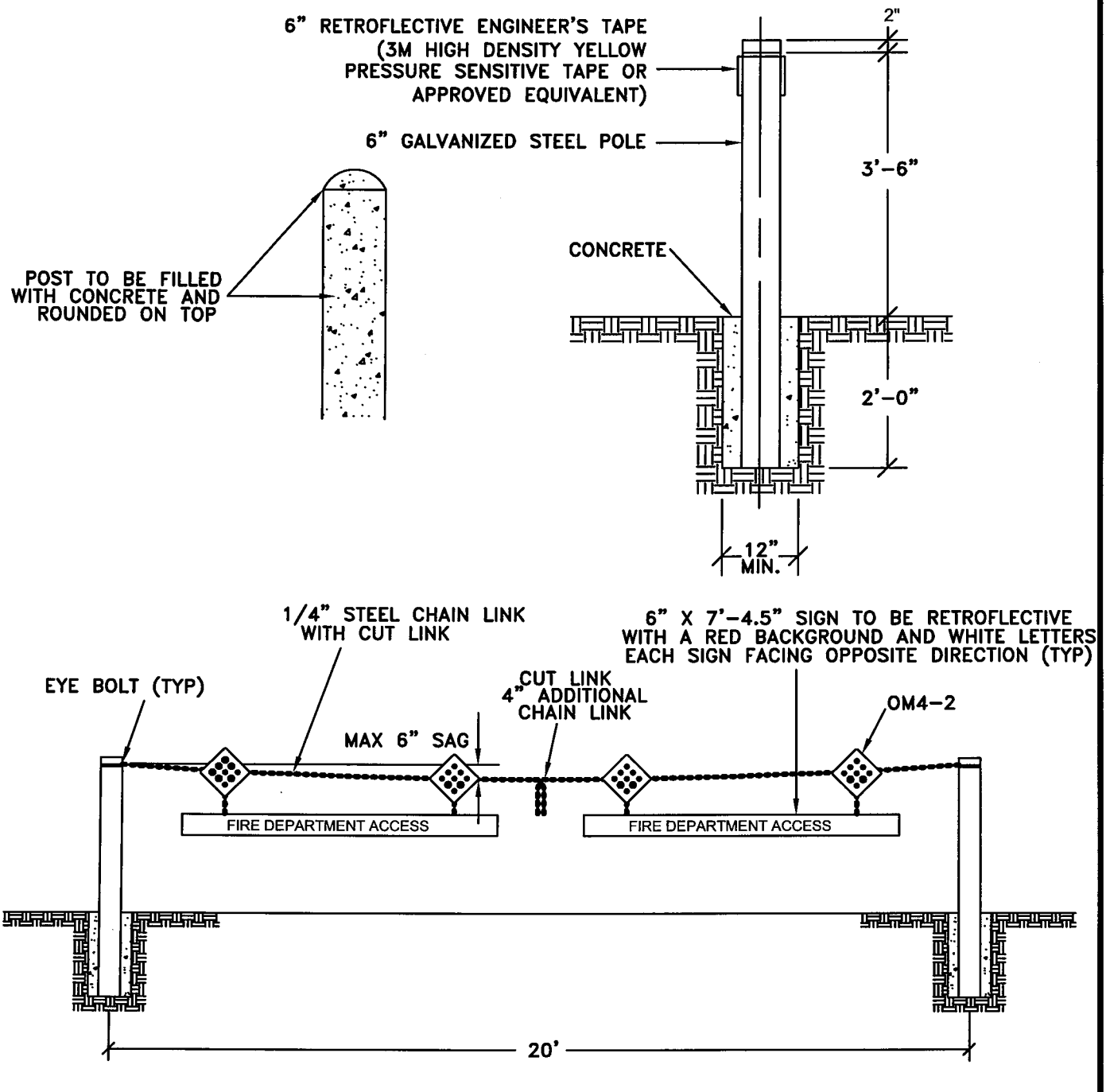
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-024
FIRE DEPARTMENT ACCESS BARRIER

APPROVALS:

CITY ENGINEER — DATE 5/21/13



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02/11/2013

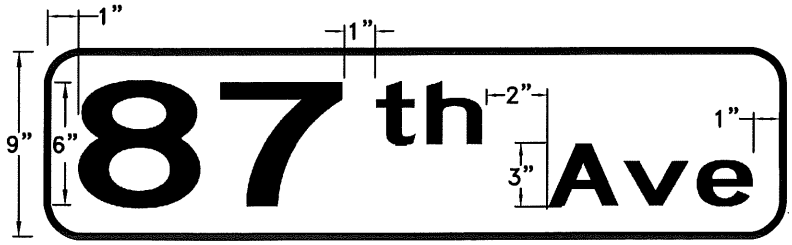
CITY OF PEORIA
STANDARD DETAIL PE-030
STREET NAME SIGNS

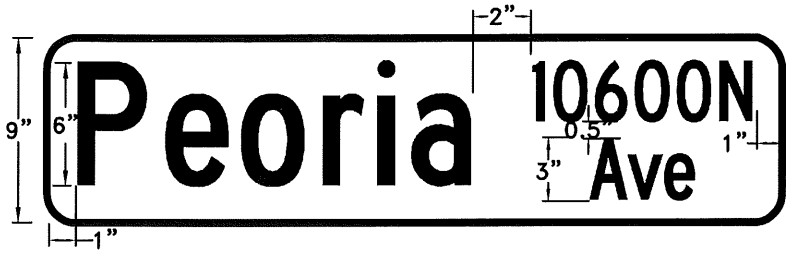
APPROVALS:

CITY ENGINEER — DATE 3/7/2016

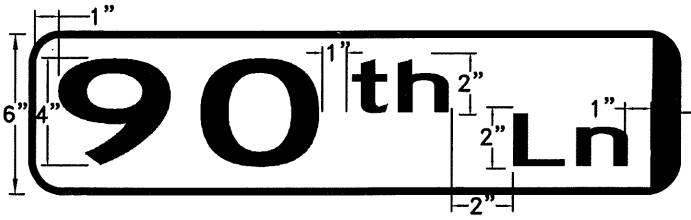
PW-UTILITIES DIRECTOR — DATE 3/7/16

Intersections with one or more Arterial or Collector Streets





Local/Local Intersections Only



White Bar -Private Streets Only

STREET SIGN MATERIAL REQUIREMENTS:

1. Sheeting type for Public Streets shall be High Intensity Prismatic ASTM Type IV Series 3930 with Black Letters and White Background.
2. Sheeting Type for Private Streets shall be 3M Scotchlite 1179 with White Letters and Brown Background
3. The Blank Size for Local/Local Intersections shall be 6" high with a varying width between 24-48" in 6" increments for all streets.
4. The Blank Size for all other street types will be 9" high with a varying width between 24-48" in 6" increments for all streets.
5. Aluminum gauge - 0.080
6. Center entire message on blank
7. Private Streets shall include a 1" wide white bar along the right edge of the sign blank, as depicted.

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01/30/2016

CITY OF PEORIA
STANDARD DETAIL PE-032-1
SIGN POST SPECIFICATION

APPROVALS:

ENGINEERING DIRECTOR — DATE: 1/14/15

PW-UTILITIES DIRECTOR — DATE: 01-15-2015

City of Peoria requires square tubing for post mounted installations. Tubing shall have a galvanized finish and be roll form 12 gage (.105–U.S.S. gage) cold rolled steel, be perforated, and have hole size of 7/16 Inch in diameter, and 1 inch on center on all sides. All sign heights shall conform to the Manual on Uniform Traffic Control Devices.

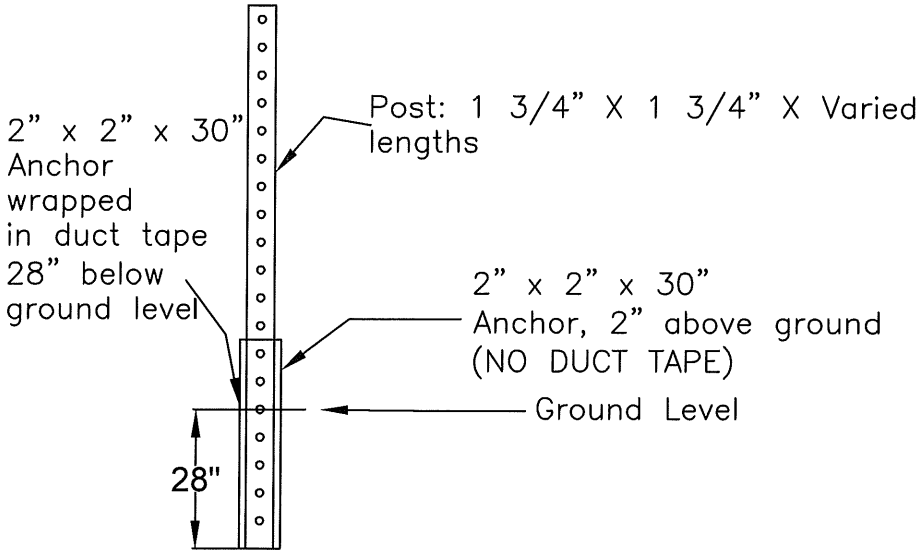

FIG. 1

Post installation requires a 2" x 2" x 30" anchor to be installed pneumatically or hydraulically and shall be 28" in the ground and 2" above ground (see fig.1)

For singular signs a 1 ¾" x 1 ¾ " x 10' post is required with the exception of object markers and/or end of road markers. For multiple signs a 1 ¾" x 1 ¾" x varied length post is required per the Manual on Uniform Traffic Control Devices height specifications. For signs that exceed 42" in width, dual posts are required. Attachment of the post to the anchor requires a 5/16" x 2 ½" grade 5 hex head bolt with a 5/16" flat washer and hex nut. Attachment of the signs to the post requires a 5/16" x 2 ½" grade 5 hex head bolt with a 5/16" flat washer and hex nut.

NOTE: Parking restriction signs shall be set at an angle of not less than 30 degrees or more than 45 degrees with the line of traffic in order to be visible to approaching traffic.

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1/8/2015

CITY OF PEORIA
STANDARD DETAIL PE-032-2
STREET LIGHT POLE SIGN INSTALLATION

APPROVALS:

ENGINEERING DIRECTOR — DATE 1/14/15

PW-UTILITIES DIRECTOR — DATE 01-15-2015

NOTES:

1. Signs should be installed on streetlight poles instead of ground-mounted posts, when possible.

2. Signs installed on street light poles shall be installed using a minimum $\frac{1}{2}$" wide stainless steel banding (C20499) with a minimum thickness of .030, a banding buckle (C25499), and a banding bracket (D02189).

3. Street name signs shall be installed using banding listed above as well as a cantilever bracket (KC250), round bracket (922SF), and a cross bracket (330SF). 6" signs shall have 6" wide brackets and 9" signs shall have 12" wide brackets.

4. 6" NO OUTLET (W1-14A) or DEAD END (W14-2A) signs shall be installed with either 6" parallel brackets or 6" cross brackets, whichever is applicable with sign orientation, and shall be installed above the street name signs, if attached at same location. If installed individually on a street light pole, the signs shall be installed using $\frac{1}{2}$" wide stainless steel banding with ah minimum thickness of .303, a banding buckle (C25499), a cantilever bracket (KC250), and a round bracket (922SF).

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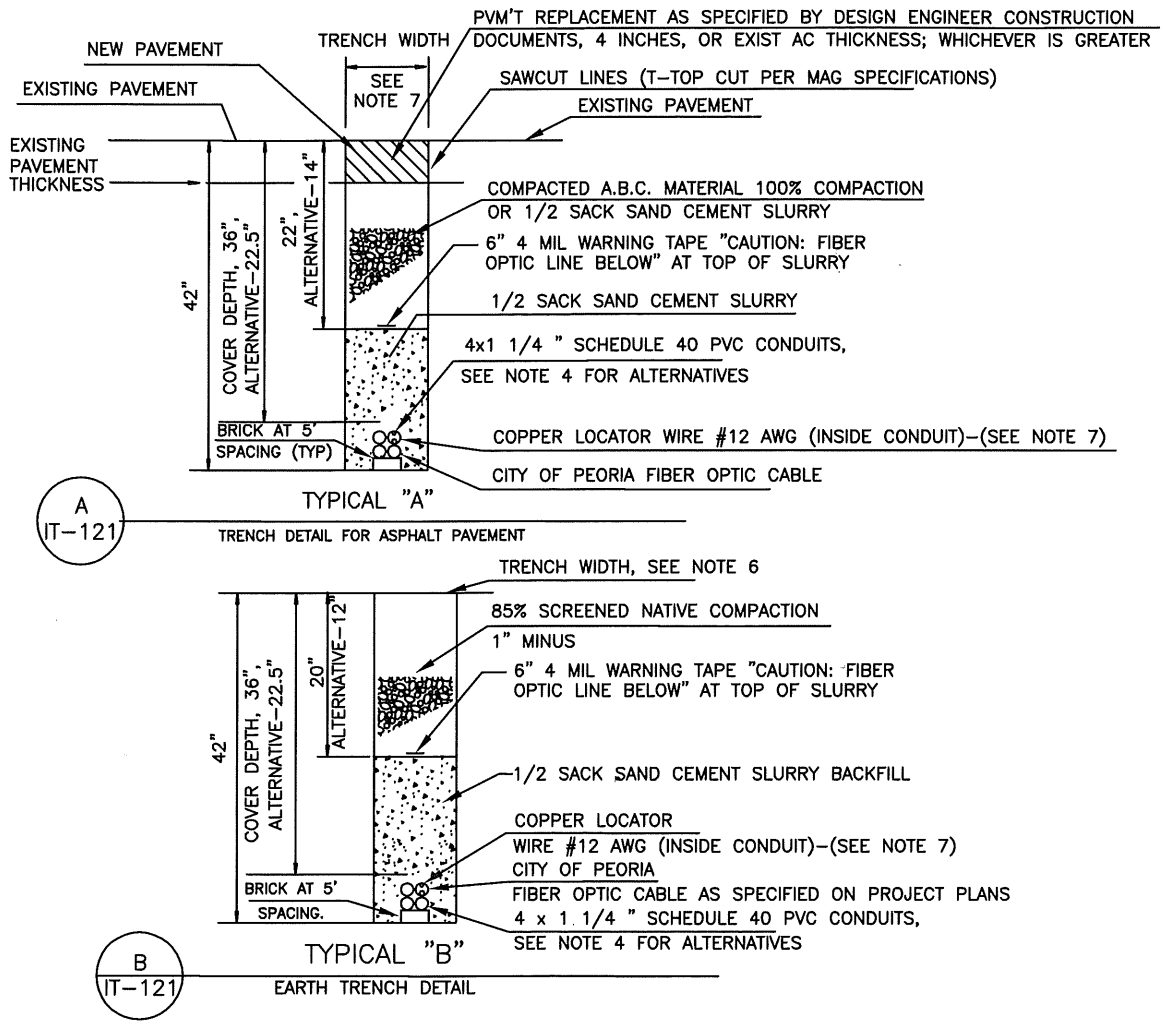
CITY OF PEORIA
STANDARD DETAIL PE-033
INTERCONNECT TRENCH DETAIL

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016 — TRAFFIC ENGINEER — DATE 3/8/16



NOTES:

1. TRENCH DEPTH VARIES BASED ON CONFLICTS WITH EXISTING UTILITIES.
2. BID ITEM FOR PROVIDING A TRENCH THAT IS A MINIMUM OF 42 INCHES DEEP INCLUDES INSTALLING FIBER OPTIC DUCT AND PROVIDING BACKFILL, COMPLETE IN PLACE. THIS ITEM SHALL PROVIDE A MINIMUM COVER DEPTH OF 36 INCHES OVER THE CONDUIT DUCT. ALL WARNING TAPE, CONDUIT SPACERS, BRICKS, AND COMPACTION WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID OF ITEM, "TRENCHING (42") AND INSTALLATION OF FIBEROPTIC DUCT, AND BACKFILL, COMPLETE, IN PLACE"-WITH APPROVAL BY THE CITY ENGINEER. AN ALTERNATIVE TRENCH DEPTH OF 28 INCHES SHALL BE INCLUDED IN THE BID PRICE UNDER ALTERNATIVE ITEM, "TRENCHING (28") AND INSTALLATION OF FIBEROPTIC DUCTS AND BACKFILL, COMPLETE, IN PLACE." THE ALTERNATIVE BID ITEM SHALL PROVIDE A MINIMUM COVER DEPTH OF 22.5 INCHES OVER THE CONDUIT DUCTS. ALL INCIDENTALS TO THE BASIC BID ITEM SHALL ALSO BE CONSIDERED INCIDENTAL TO THE ALTERNATIVE ITEM - WITH APPROVAL BY THE CITY ENGINEER.
3. HORIZONTAL DIRECTIONAL BORING SHALL BE ALLOWED WITH ENGINEERS PRIOR APPROVAL.
4. IF THE CONDUIT ROUTING IS MODIFIED TO CROSS AN EXISTING PORTLAND CEMENT CONCRETE DRIVEWAY THE CONDUITS SHALL BE PLACED BY BORING. ALL ASPHALT DRIVEWAYS MAY BE TRENCHED.
5. A 1/2 SACK OF SAND CEMENT SLURRY BACKFILL SHALL BE USED WHEN BACKFILLING CONDUITS. CONDUITS SHALL BE SUPPORTED AND ANCHORED IN THE TRENCH PRIOR TO BACKFILLING WITH THE CEMENT SLURRY.
6. TRENCH WIDTH MAY NOMINALLY VARY FROM 6" TO 8" BUT SHALL NOT EXCEED 12 INCHES.
7. A SINGLE CONTINUOUS INSULATED COPPER LOCATOR WIRE AWG #12 SHALL BE INSTALLED INSIDE ONE OF THE CONDUITS ALONG THE ENTIRE LENGTH OF THE CONDUIT RUN. WIRE SHALL HAVE A FIVE FOOT SERVICE LOOP IN EACH PULL BOX. CRIMP A PIGTAIL TO LID. A CRIMPED SPLICE IS REQUIRED IN ALL THE PULL BOXES AND "NOT" IN THE CONDUIT RUN.
8. PROVIDE 3/4 INCH WIDE 2500 LBF MULE PULL TAPE IN ALL CONDUITS FOR THE ENTIRE LENGTH OF THE CONDUIT RUN.
9. CONTRACTOR SHALL MAINTAIN A TEN TO ONE VARIANCE OF THE CONDUIT ALIGNMENT DURING INSTALLATION.
10. CONDUIT SPACERS @ 3 PER 20' AND 2' FROM ANY DIRECTION CHANGE OR JOINT.

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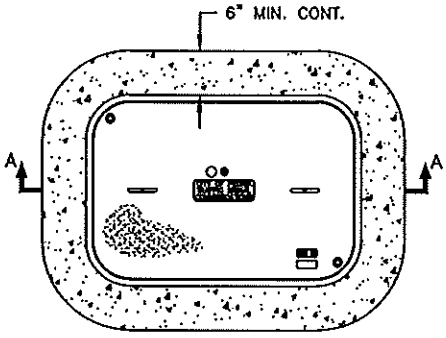
01/31/2016

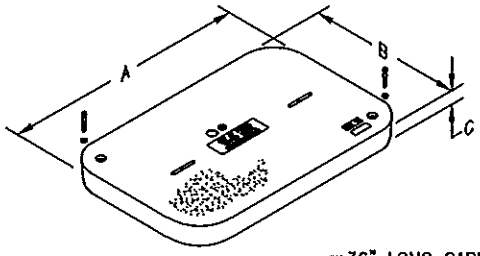
CITY OF PEORIA
STANDARD DETAIL PE-034-1
INTERCONNECT PRECAST COMMUNICATION PULL BOX

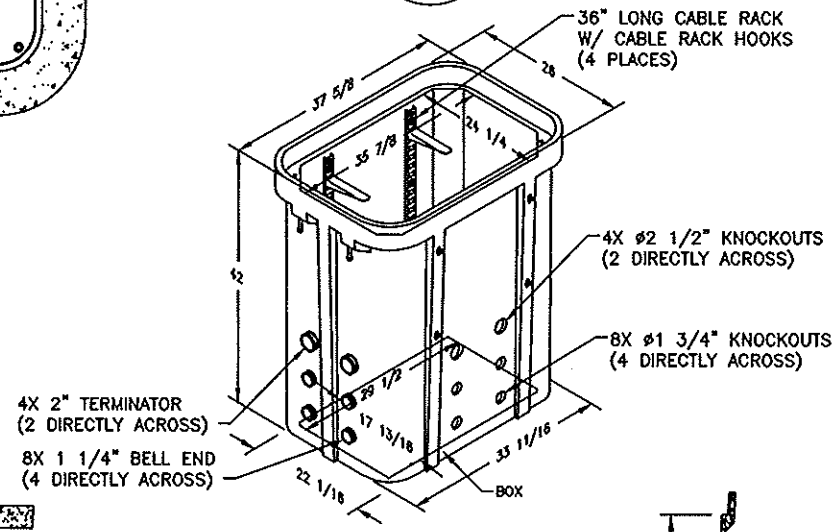
APPROVALS:

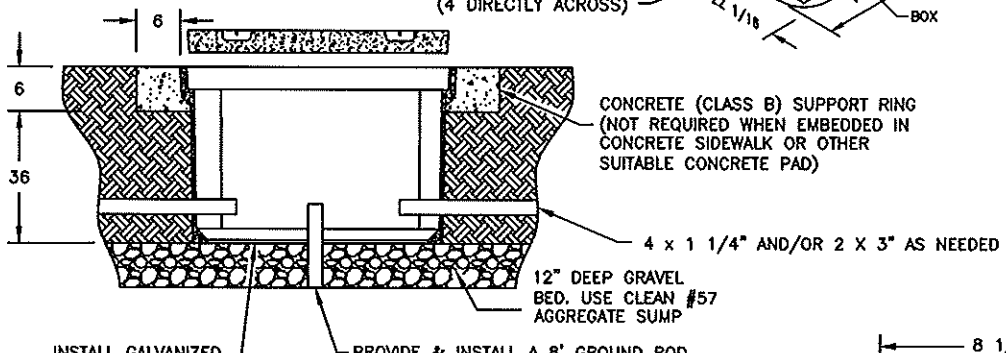
CITY ENGINEER — DATE 2/6/14



PLAN VIEW

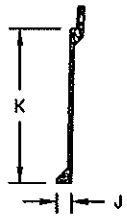


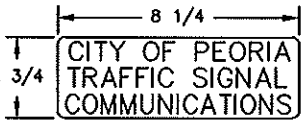




SECTION A-A

TYPICAL PULL OR SPLICE BOX





LOGO DETAIL

TABLE OF DIMENSIONS (MINIMUMS)														
TYPE	DESCRIPTION	DIMENSIONS (IN.)										ADDITIONAL COILED FIBER (Feet)	# TEST POINTS	ADDITIONAL TRACER WIRE
		A	B	C	D	E	F	G	H	J	K			
COMM	PULL BOX - (24" x 36" x 42")	35 5/8	24	3	37 5/8	28	18	30 3/8	18 3/4	2	39	25	1	5 FT

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01/01/2014

CITY OF PEORIA
STANDARD DETAIL PE-034-2
INTERCONNECT PRECAST COMMUNICATION PULL BOX NOTES

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

TRAFFIC ENGINEER — DATE 3/8/16

NOTES:

1. ALL NON-DELIBERATE TRAFFIC PULL BOX COVERS MUST COMPLY WITH ALL TEST PROVISIONS OF THE LATEST ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY", AND MUST MEET THE TIER 15 APPLICATION UNLESS SPECIFIED BY THE CITY OF PEORIA. MARKINGS SHOWING THE TIER RATING MUST BE EMBOSSED IN THE TOP SURFACE OF THE COVER.
2. PULL BOX SHALL BE PROVIDED WITH COVER AND SPECIAL CONCRETE CAP, COVER SHALL HAVE EMBOSSED NO-SKID PATTERN AND BE LABELED "CITY OF PEORIA TRAFFIC SIGNAL COMMUNICATIONS".
3. TOPS OF PULL BOXES SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OF ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE PULL BOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION. THE BOX SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADED. WHERE PRACTICAL, PULL BOXES SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULL BOXES SHOWN ADJACENT TO TRAFFIC SIGNAL POLE SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL MAINTAIN A 10 TO 1 VARIANCE OF THE CONDUIT ALIGNMENT DURING INSTALLATION. CONDUIT SHALL CONNECT TO THE BOX STUBOUTS WITHOUT BENDS GREATER THAN THE 10 TO 1 VARIANCE.
5. ALL NON-DELIBERATE TRAFFIC PULL BOXES MUST COMPLY WITH ALL TEST PROVISIONS OF THE LATEST ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY", AND MUST MEET THE TIER 22 APPLICATION. MARKINGS SHOWING THE TIER 22 RATING MUST BE LABELED OR STENCILED ON THE INSIDE AND OUTSIDE OF THE BOX.
6. ALL NON-DELIBERATE TRAFFIC PULL BOXES AND COVERS MUST BE MADE OF POLYMER CONCRETE WITH FIBERGLASS REINFORCEMENT. THE BOX MUST HAVE CONTINUOUS FIBERGLASS CLOTH REINFORCEMENT ON THE INSIDE AND OUTSIDE PERIMETERS. THE COVERS MUST HAVE A MINIMUM OF TWO LAYERS OF FIBERGLASS CLOTH REINFORCEMENT.
7. ALL NON-DELIBERATE PULL BOXES AND COVERS SHALL BE TESTED AND CERTIFIED, MEETING ALL TEST PROVISIONS OF THE ANSI/SCTE 77, "SPECIFICATIONS FOR UNDERGROUND ENCLOSURES INTEGRITY" BY A UNDERWRITERS LABORATORIES (UL) 66WF AND MUST HAVE A P.E. STAMP CERTIFYING ALL TEST PROVISIONS OF THE ANSI/SCTE 77 AND SUBMITTED PRIOR TO BEING APPROVED.
8. COVER SHALL BE SECURED TO PULL BOX USING 3/8-7 AUGER HEX HEAD BOLTS.
9. ALL COVERS SHALL BE COMPLETE WITH A MOLDED LOGO AND MANUFACTURES NAME AND TIER RATING LOGO (NO GLUE IN LOGOS).
10. PARTS SHALL BE QUAZITE PG2436B997 PULL BOX, AND PG2436H554 COVER OR APPROVED EQUAL.
11. A COMPLIANCE LETTER FROM THE MANUFACTURE OF THE PULL BOXES, SHALL BE SUBMITTED ALONG WITH MATERIAL SUBMITTALS. THE COMPLIANCE LETTER SHALL INDICATE THAT THE PULL BOX MANUFACTURE HAS MET OR EXCEEDED AL TEST PROVISIONS OF THE LATEST EDITION OF THE ANSI/SCTE 77 & ALL OF MCDOT REQUIREMENTS LISTED IN PLAN DETAILS.
12. CONDUCTOR LOCATE WIRE SHALL BE SPLICED IN ALL BOXES WITH PIGTAIL FOR LOCATING CONNECTION TO BE CONNECTED TO LID.
13. ALL COVER PULL SLOTS SHALL BE RATED FOR A MINIMUM OF 3,000 LBS OF PULL OUT STRENGTH.
14. LABEL WILL BE 1 1/2" DIAMETER ORANGE CIRCLE (EM2005 ORANGE COLOR), WITH BLACK ARROW GRAPHIC. COLOR & GRAPHIC TO BE SUBSURFACE SIL SCREEN PRINTED ON HP12W, .075 DIAMETER POLTCARBONATE SHEET. REVERSE SIDE ADHESIVE WILL BE 300 LSE OR EQUIVALENT & FOR THE USE SPECIFICALLY WITH POLYMER CONCRETE MATERIALS.
15. THE DEEP RECESS OF THE POLYMER CONCRETE PULL BOX SHALL BE CLEANED WITH AN ALCOHOLIC CLEANER PRIOR TO APPLYING LABELS.
16. PROVIDE RACKING AND MOUNTING HARDWARE FOR FIBER OPTIC CABLE ON TWO SIDES, FOUR RACKS PER SIDE.
17. PROVIDE PLUGS FOR ALL UNUSED CONDUITS.

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01/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-035
INTERCONNECT #7 COMMUNICATION PULLBOX

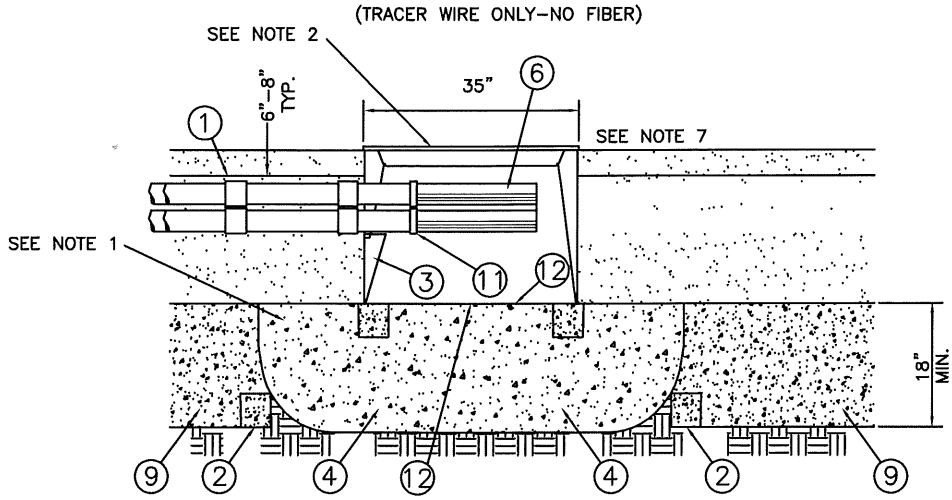
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

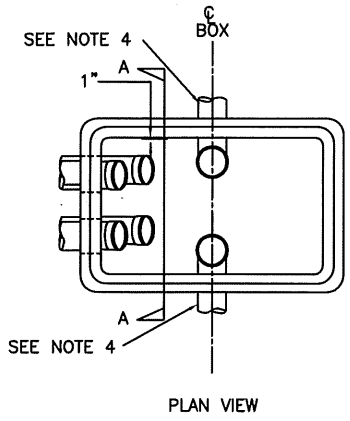
TRAFFIC ENGINEER — DATE 3/8/16

NO WIRE

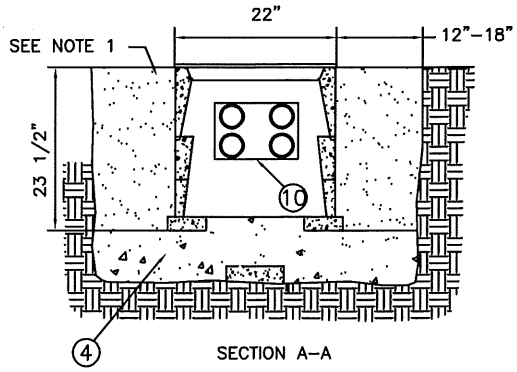
(TRACER WIRE ONLY-NO FIBER)



DEAD END BOX ONLY



PLAN VIEW



SECTION A-A

MATERIAL LIST

ITEM	DESCRIPTION
①	WARNING TAPE
②	CONCRETE BUILDING BLOCK 2" X 4" X 8"
③	FIBERLYTE FL36TBOX/FL36D LID/FL36 EXTENSION-(PE-040-1)
④	CLASS "B" CONCRETE AGGREGATE DESIGNATED SIZE NO. 57
⑤	NOT USED
⑥	COMMUNICATION CABLES (SEE NOTE 6)
⑦	4 X 1 1/4" SCHEDULE 40 P.V.C. CONDUIT DUCT BANK OR
	AS SPECIFIED ON PLANS
⑧	NOT USED
⑨	HALF SACK SLURRY
⑩	KNOCK OUT 6" X 12" - SEE NOTE 10
⑪	1" IN BOX BELL END FOR PVC - SEE NOTE 9
⑫	METAL SCREENED MESH

CONSTRUCTION NOTES:

1. BACKFILL WITH DESIGNATED SIZE NO. 57 AGGREGATE TO BOTTOM OF THE PULL BOX. BACKFILL AROUND SIDES OF THE PULL BOX WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
2. THIS BOX IS DESIGNED FOR NON-TRAFFIC AREAS. BOX AND COVER SHALL BE CONCRETE OR COMPOSITE. COVERS SHALL BE SECURED WITH 3/8"BOLTS,NUTS & WASHERS, WHICH WILL BE OF BRASS, STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL. STAINLESS STEEL SHALL HAVE A CHROMIUM CONTENT OF NOT LESS THAN 18% AND A NICKEL CONTENT OF NOT LESS THAN 8%, NUTS SHALL BE RECESSED BELOW TOP SURFACE OF COVER.
3. CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN 1"/FT. FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
4. LATERAL CONDUITS AS REQUIRED.
5. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
6. COMMUNICATIONS CABLE SHALL BE TAGGED WITH CABLE IDENTIFICATION.
7. NUMBERS IN CIRCLES REFER TO ITEMS IN MATERIAL LIST.
8. CITY OF PEORIA TRAFFIC SIGNAL COMMUNICATION SHALL BE THE TITLE EMBOSSED ON THE LID. COVER LETTERING SHALL BE 1" MINIMUM LETTERS.
9. USE PVC TO EXTEND INTO PULL BOX.
10. USE METAL SCREENED MESH TO BLOCK OPENING BETWEEN CONDUITS.
11. POUR CONTROLLED LOW STRENGTH MATERIAL UP TO WITHIN 12" OF PULLBOX
12. REFER TO T-453 FOR ALL PULL BOX DIMENSIONS EXCEPT KNOCK-OUT.
13. WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREA, 1/2" PREMOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND THE PULL BOX.
14. REFER TO PLANS FOR NUMBER OF CONDUITS TO BE INSTALLED.
15. INSTALL PULL BOXES AT 660 FOOT INTERVALS

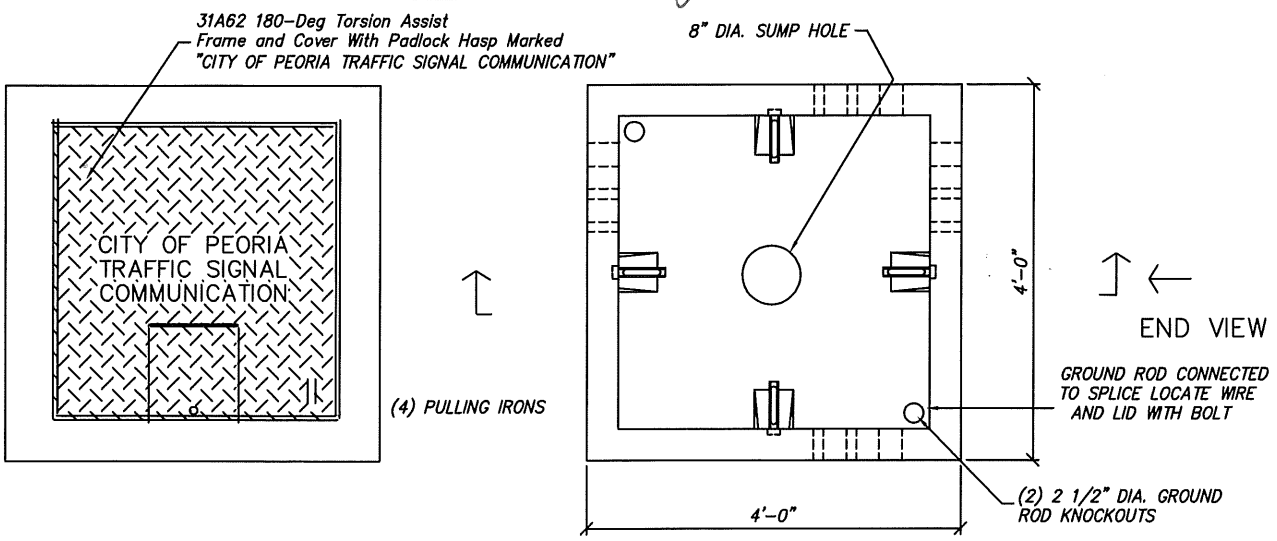
01/31/2016

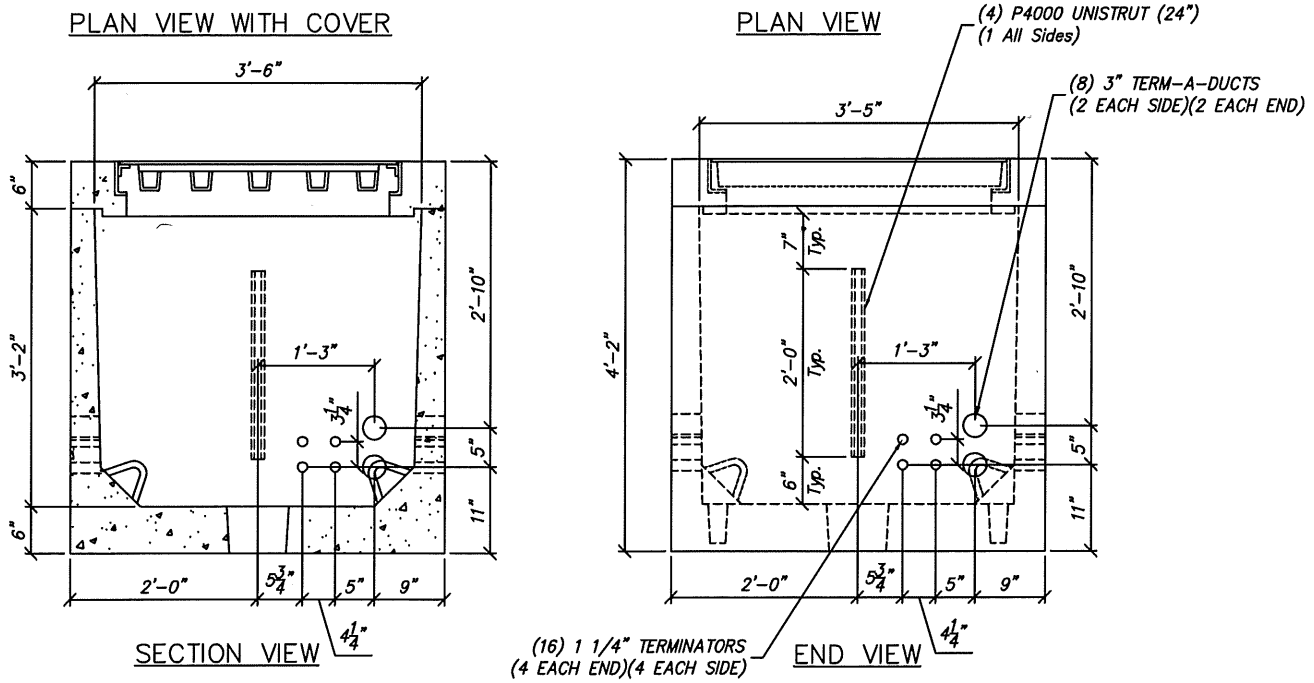
CITY OF PEORIA
STANDARD DETAIL PE-036
INTERCONNECT COMMUNICATION VAULT

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

TRAFFIC ENGINEER — DATE 3/8/16



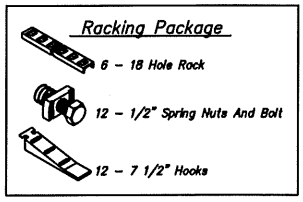


STRUCTURAL NOTES:

1.) CONCRETE: 28 DAY COMPRESSIVE STRENGTH F'C = 4500 PSI
2.) REBAR: ASTM A-615 GRADE 60
3.) MESH: ASTM A-185 GRADE 65
4.) DESIGN: ACI-318-99 BUILDING CODE
ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
5.) LOADS: HS20 WHEEL LOADING IN OFF-STREET LOCATIONS WHERE NOT SUBJECTED TO HIGH DENSITY TRAFFIC
80 PCF LATERAL LIVE LOAD SURCHARGE - UP TO 8'-0" DEPTH
SOIL: 40 PCF LATERAL SOIL PRESSURE ABOVE WATER TABLE
80 PCF LATERAL SOIL PRESSURE BELOW WATER TABLE
120 PCF SOIL DENSITY

GENERAL NOTES:

1.) ALL JOINTS SHALL BE SEALED USING CONSEAL CS-101 BUTYL RUBBER ROPE.
2.) PROVIDE RACKING AND MOUNTING HARDWARE FOR THE FIBER OPTIC CABLE.
3.) PROVIDE CONDUIT PLUGS IN ALL UNUSED CONDUITS
4.) PROVIDE AND INSTALL A 10' GROUND ROD, CONNECT TO LOCATE WIRE AND TO GROUND TERMINAL OF SPLICE ENCLOSURES



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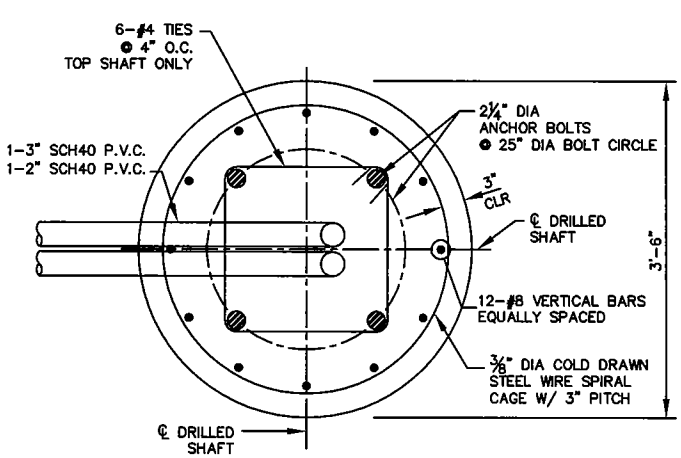
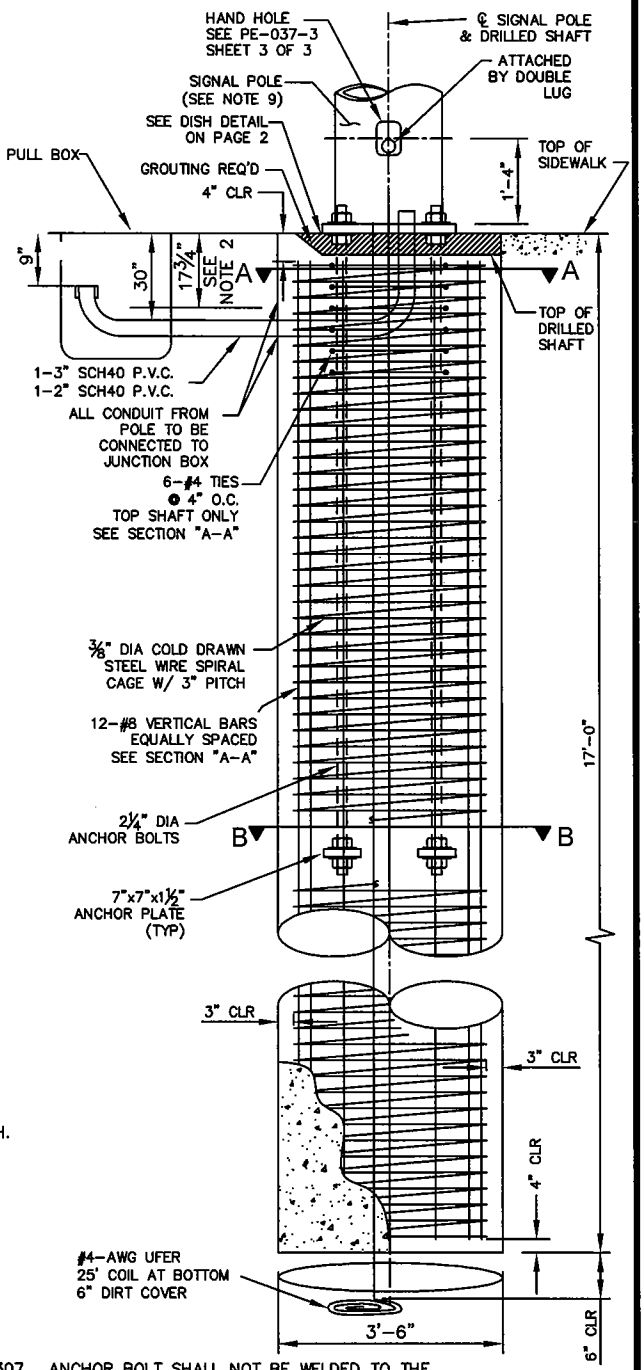
01/31/2016

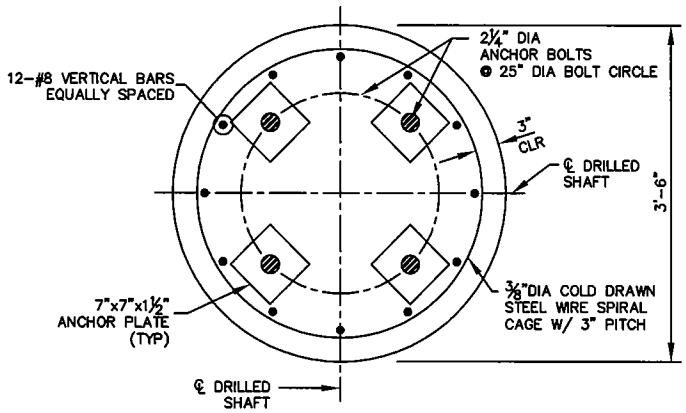
CITY OF PEORIA
STANDARD DETAIL PE-037-1
SIGNAL POLE FOUNDATION, MODIFIED "R" POLE

APPROVALS: _____ 3/27/12
CITY ENGINEER DATE



SECTION "A-A"





SECTION "B-B"

NOTES:

1. ALL FOUNDATIONS SHALL BE CAST IN PLACE AGAINST UNDISTURBED EARTH. WELDING OF REINFORCING STEEL PROHIBITED.
2. A CIRCULAR FORM SHALL BE USED FOR THE TOP 17¾" ONLY.
3. BOLTS TO BE SQUARE WITH ROADWAY OR AT ANGLE SHOWN ON PLANS.
4. PLACE ALL CONDUIT IN SAME TRENCH WHERE POSSIBLE.
5. ALL FOUNDATIONS SHALL BE 42" DIA 17'-0" FEET DEEP.
6. CONCRETE FOR FOUNDATION SHALL BE CLASS "A" (AE) F'C=3,000 PSI.
7. ANCHOR BOLTS SHALL CONFORM TO MINIMUM REQUIREMENTS OF ASTM A 307. ANCHOR BOLT SHALL NOT BE WELDED TO THE REINFORCING STEEL. THE NUTS, WASHERS, AND THE TOP 10" OF THE ANCHOR BOLTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
8. CAP CONDUIT ON BOTH ENDS PRIOR TO INSTALLATION.
9. FOUNDATION ACCOMMODATES MODIFIED R POLE SHOWN IN PEORIA DETAIL: PE-038
10. UFER GROUND NOT GROUND ROD
11. 2" CONDUIT FOR COMM ONLY

01/31/2012

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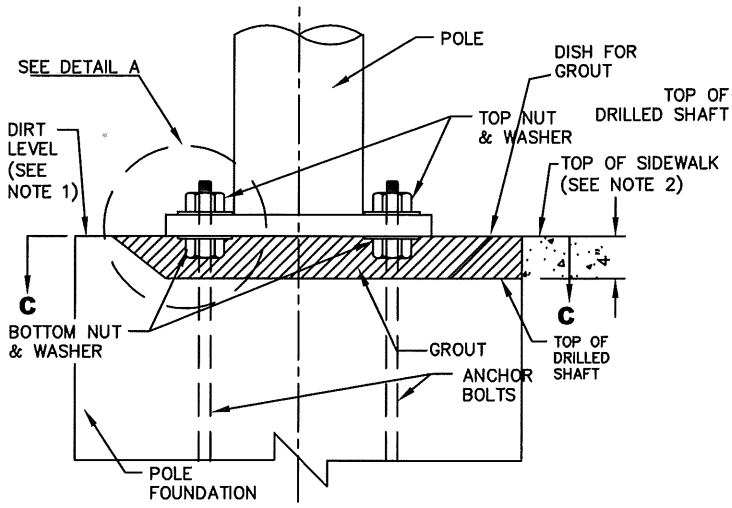
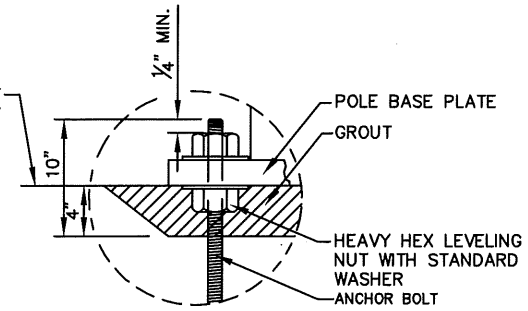
CITY OF PEORIA
STANDARD DETAIL PE-037-2
SIGNAL POLE FOUNDATION, MODIFIED "R" POLE
PAGE 2 OF 3

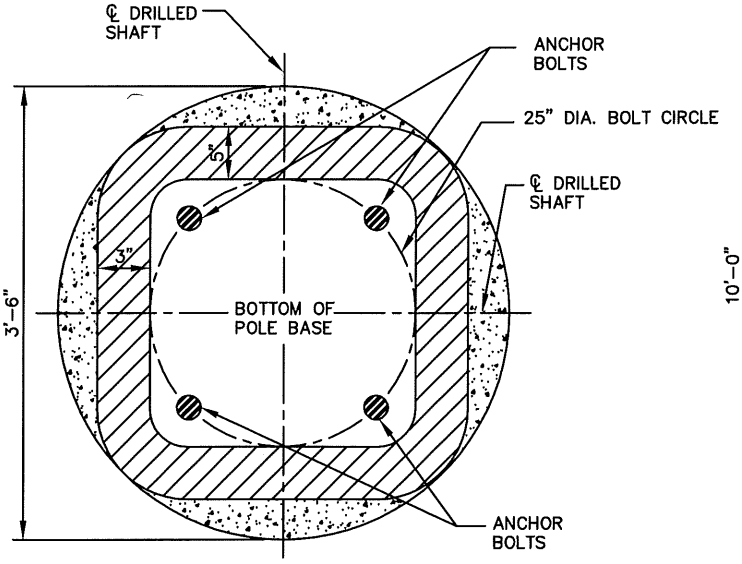
APPROVALS: _____ 3/7/2016 _____ 3/8/16
ENGINEERING DIRECTOR DATE TRAFFIC ENGINEER DATE



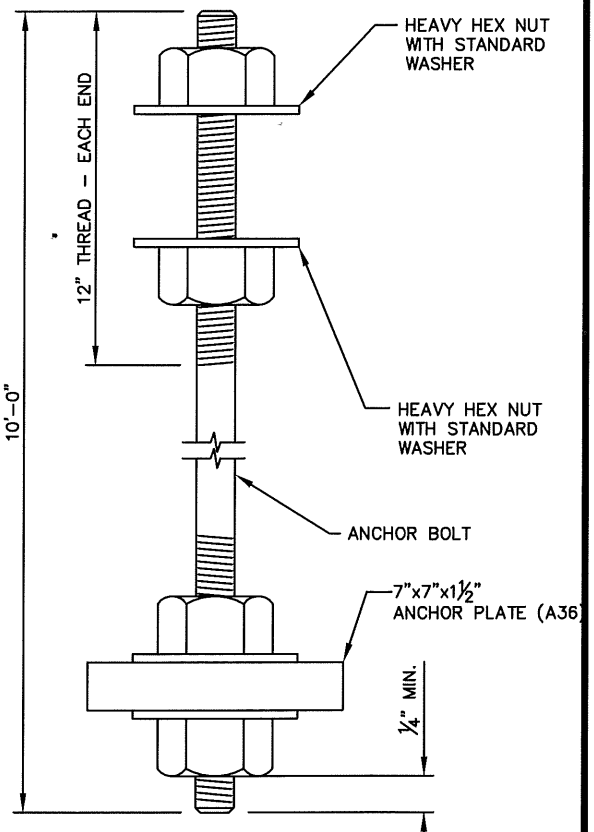
SIDE VIEW
POLE FOUNDATION - DISH DETAIL
(TYPICAL PER ALL POLES)



DETAIL "A"



SECTION C-C
POLE FOUNDATION - DISH DETAIL



2¼" DIA ANCHOR BOLT ASSEMBLY (4 REQUIRED)

1. WHEN FOUNDATION IS LOCATED IN A DIRT AREA
2. WHEN FOUNDATION IS LOCATED IN A SIDEWALK AREA.
3. BOTTOM OF POLE BASE SHALL SIT FLUSH WITH TOP OF POLE FOUNDATION OR SIDEWALK.
4. AFTER POLE IS LEVELED GROUT IS TO BE INSTALLED FLUSH WITH TOP OF FOUNDATION OR SIDEWALK.

01/31/2016

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CITY OF PEORIA
STANDARD DETAIL PE-037-3
SIGNAL POLE FOUNDATION, MODIFIED "R" POLE
PAGE 3 OF 3

APPROVALS: _____ 1/27/12
CITY ENGINEER DATE

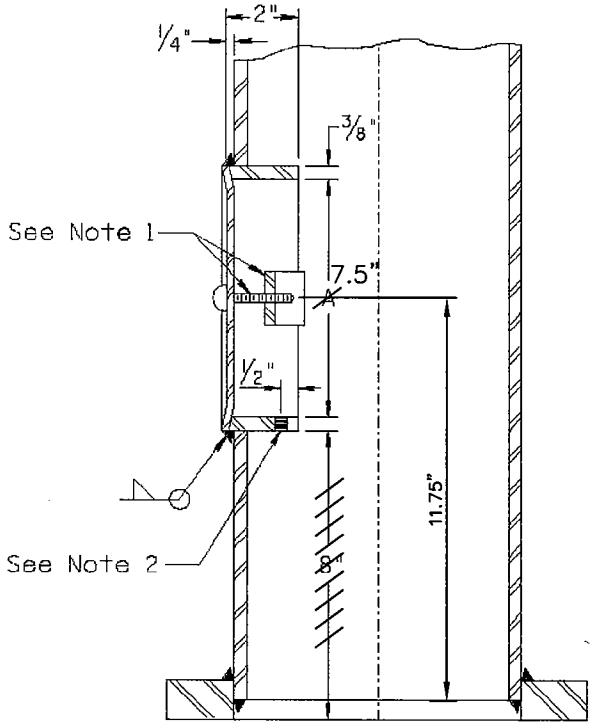
NOTES:
1. Hand hole locking device shall be used

2. Pole ground shall be 5/16" dia NC tapped hole located as shown.

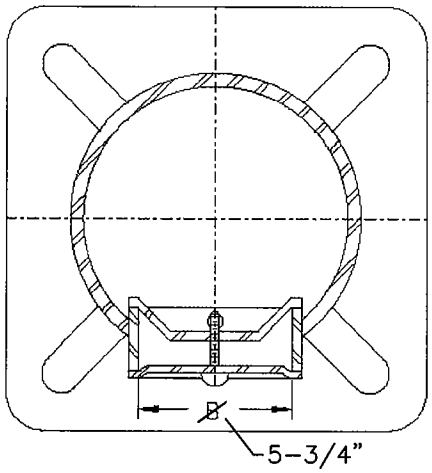
3. Hand hole shall be oriented so that it is aligned with the mast arm.

4. Handhole cover may be rectangular shape or oval shape.

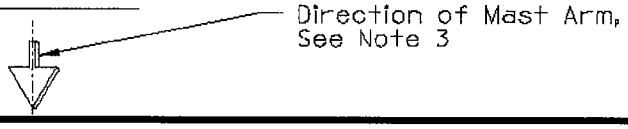
5. The exact configuration of the hand hole can vary as long as the function and basic size is the same or larger.



SECTION A-A



SECTION B-B



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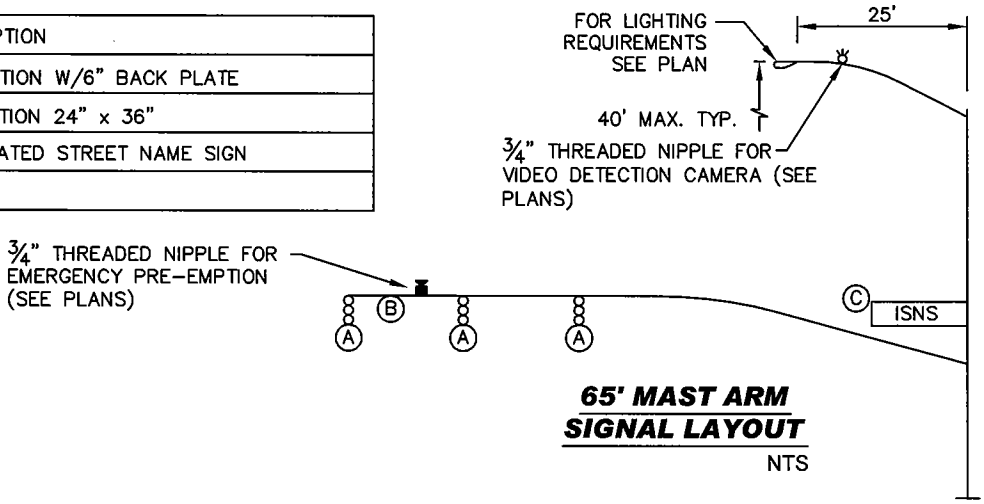
01/31/2012

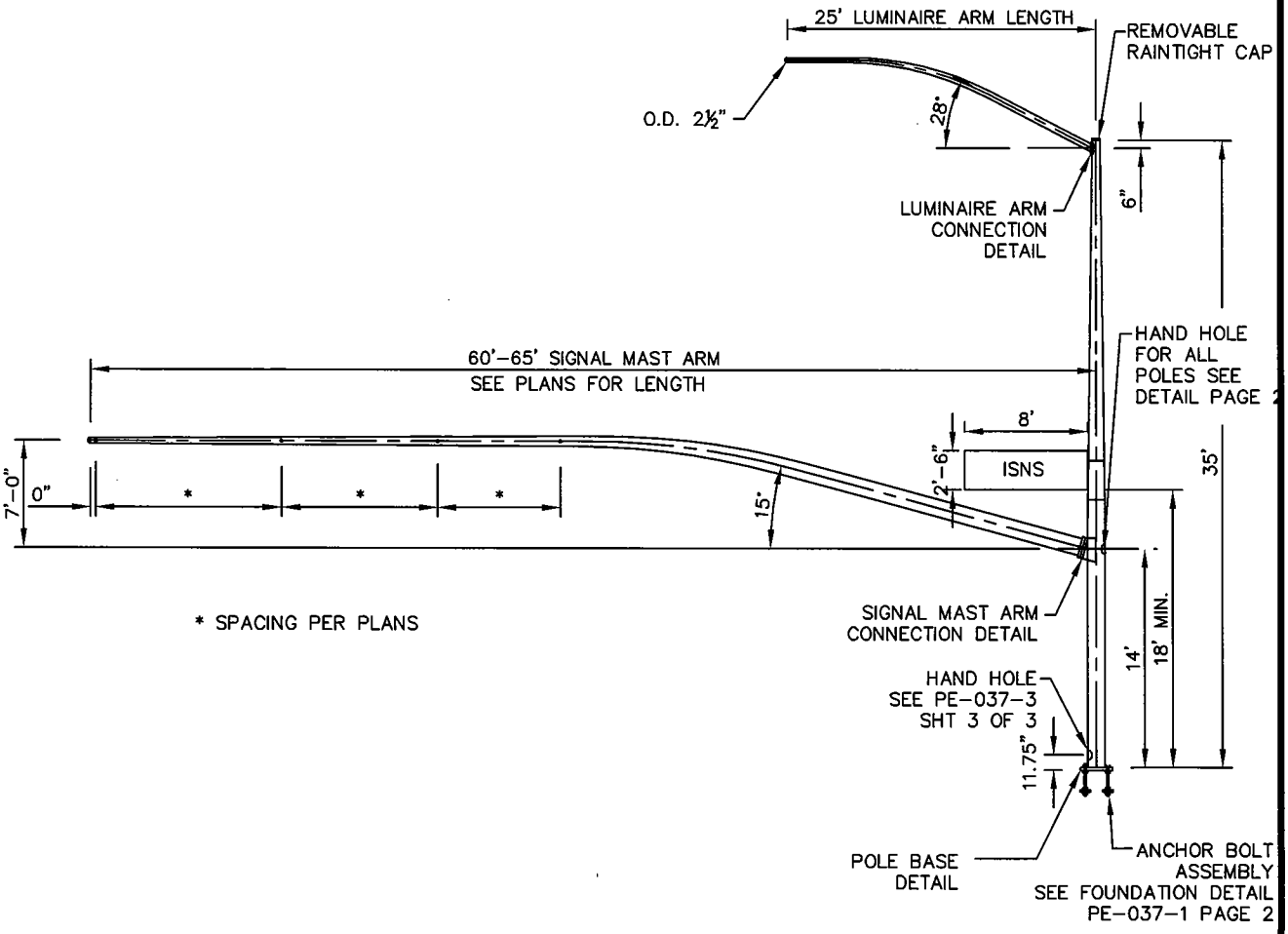
CITY OF PEORIA
STANDARD DETAIL PE-038-1
SIGNAL POLE, MODIFIED "R" POLE

APPROVALS: _____ 3/27/12
CITY ENGINEER DATE

DEVICE		DESCRIPTION
(A)	SIGNAL	12' SECTION W/6" BACK PLATE
(B)	SIGN	REGULATION 24" x 36"
(C)	SIGN	ILLUMINATED STREET NAME SIGN



65' MAST ARM SIGNAL LAYOUT
NTS



01/31/2012

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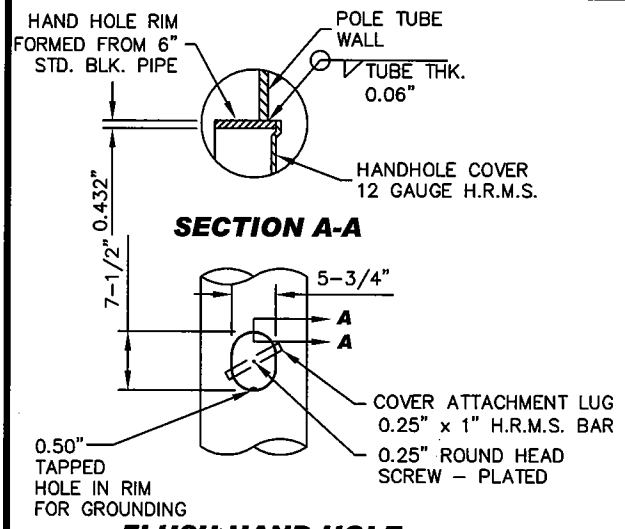
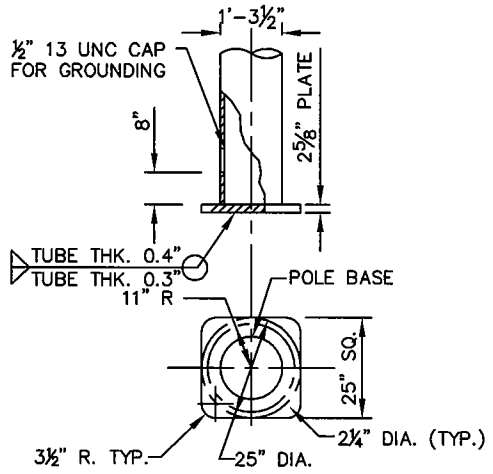
CITY OF PEORIA
STANDARD DETAIL PE-038-2
SIGNAL POLE, MODIFIED "R" POLE
PAGE 2 OF 2

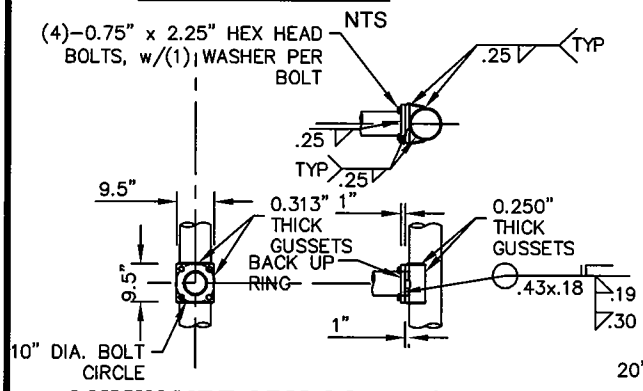
APPROVALS: _____ 3/27/12
CITY ENGINEER DATE



FLUSH HAND HOLE CASTING DETAIL

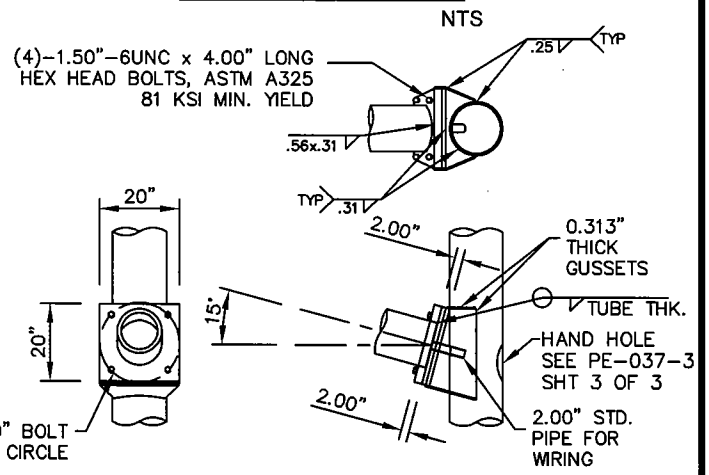


POLE BASE DETAIL



LUMINAIRE ARM CONNECTION

NTS



SIGNAL ARM CONNECTION

NTS

NOTES:

1. IT IS THE POLE MANUFACTURER'S RESPONSIBILITY TO ENSURE THAT THEIR EQUIPMENT IS DESIGNED TO ACCOMMODATE THE TOTAL LOAD OF ALL EQUIPMENT DEPICTED ON THE PLAN SET. IT IS ALSO THE RESPONSIBILITY OF THE POLE MANUFACTURER TO CONSTRUCT THE POLE BASE PLATE TO MATCH THE CONFIGURATION OF BOLTS AND FOUNDATION ON SHEET TS08 OF THIS PLAN SET.
2. POLES AND ARMS SHALL MEET THE DESIGN REQUIREMENTS OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS (CURRENT EDITION) FOR AN 80 MPH WIND WITH 100 MPH GUSTS.
3. STEEL POLE AND ARMS AND THE STRUCTURAL SECTION PROPERTIES SHALL BE DESIGNED USING A MAXIMUM ALLOWABLE STRENGTH OF 55 KSI. STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 48.3 KSI WITH NO CREDIT ALLOWANCE FOR COLD WORKING.
4. ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A 123.
5. TUBE DIAMETERS TOLERANCE OF ± 0.125'.
6. ALL GALVANIZED STEEL THREADS SHALL BE FREE FROM DEFECTS ALLOWING NUTS TO BE FREE RUNNING BY HAND FOR THE ENTIRE LENGTH OF THE THREADS.
7. WELDING DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH CURRENT AMERICAN WELDING SOCIETY (AWS) SPECIFICATION D1.1
   ALL WELDING, REGARDLESS OF WHERE IT IS DONE (SHOP OR FIELD) OR WHAT COMPONENTS ARE WELDED (REBAR, STEEL, OR OTHER METALS), MUST BE DONE BY AN AWS CERTIFIED WELDER. THIS INCLUDES TEMPORARY STEEL STRUCTURES SUCH AS FALSEWORK AND UNDERGROUND SHORING. CONTRACTORS MUST SUBMIT COPIES OF CURRENT AWS CERTIFICATION TO THE CITY ENGINEER BEFORE ANY FIELD WELDING BEGINS.
8. DUAL MAST ARM POLE ASSEMBLY, ARMS SHALL BE AT 90 DEGREES.
9. ALL INSULATORS SHALL BE BANDED.
10. POLES AND ARMS SHALL BE CIRCULAR CROSS SECTIONS.
11. SHOP DRAWINGS ARE REQUIRED TO BE SUBMITTED TO THE CITY OF PEORIA FOR REVIEW PRIOR TO THE ORDERING OF ANY EQUIPMENT.
12. ALL BUTT OR GROOVE WELDS SHALL BE GROUND FLUSH.
13. UNLOADED - NO DEAD OR LIVE LOAD.

01/31/2012

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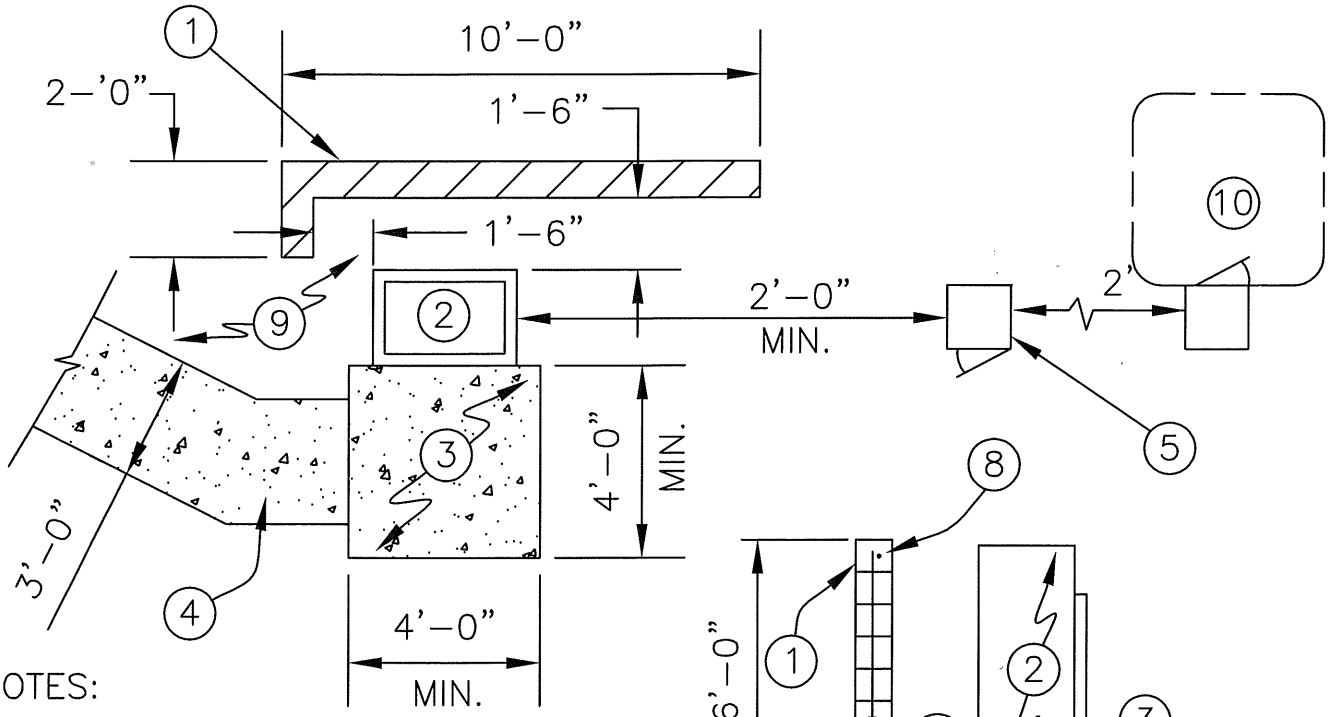
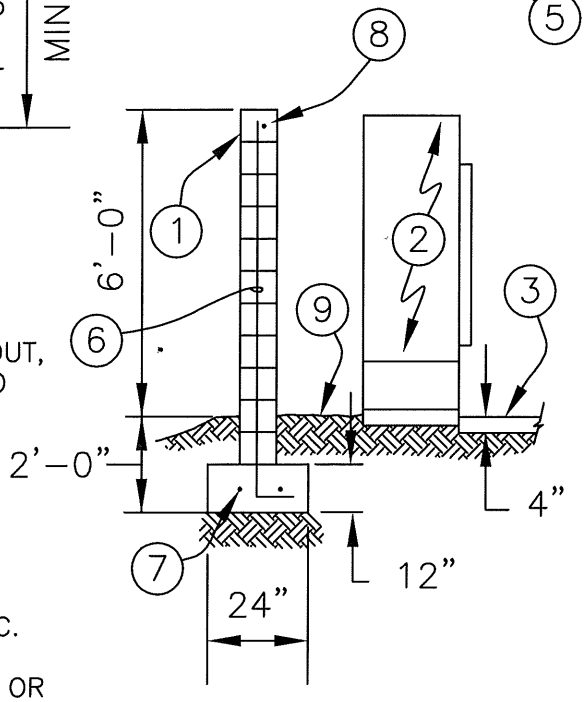
CITY OF PEORIA
STANDARD DETAIL PE-039
TRAFFIC CONTROL CABINET SCREEN WALL AND COURTESY PAD DETAIL

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

TRAFFIC ENGINEER — DATE 3/8/16





NOTES:

1. MASONRY SCREEN WALL-8X8X16 SPLIT FACE CMU, BROWN WITH MATCHING GROUT, STUCCO, SMOOTH, OR STONE VENIER TO MATCH ADJACENT EXISTING WALLS.
2. SIGNAL CABINET
3. COURTESY PAD – CLASS C CONC.
4. MAINTENANCE SIDEWALK – CONNECT TO PEDESTRIAN SIDEWALK – CLASS C CONC.
5. POWER PEDESTAL – BATTERY BACK UP OR PULL BOX.
6. #4 VERTS @24" O.C. IN GROUTED CELLS
7. 2 EA #4 HORZ. BARS IN MAG 2000 PSI CONC.
8. 1 EA #4 HORZ. BAR IN SOLID GROUTED CELL OR USE #9 DURAWIRE @ 16" O.C.
9. LANDSCAPE AREA OR EXTEND CONC. PAD
10. 4'X4' CLEAR ZONE SAFETY AREA IN FRONT OF EVERY DOOR OR PANEL OPENING.

I:\GUIDE\DETAILS\2016\PE-039

01/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-040-1
TRAFFIC SIGNAL ALLOWABLE MATERIALS LIST, PAGE 1

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16

Traffic Signal Pre-emption:
- a. GTT Model 721, Detector eye
- b. GTT Model 764, Phase Selector
- c. GTT Model 138 Cable

Video Detection:
- a. Aldis Gridsmart System w/cables

Traffic Signal Conductors:
- a. IMSA 19-1, 90°C HI Temp
- b. 16 AWG Stranded In 25,7,5,2 Conductors
- c. Power wire shall be #8 AWG, black XHHW wire
- d. Common wire shall be #8 AWG, White XHHW wire
- e. Ground wire shall be #8 AWG, Green XHHW wire

Traffic Signal Pull Boxes:
- a. Fiberlyte FL36TBOX
- b. Fiberlyte FL36D Lid
- c. Fiberlyte FL36 (*) Extensions
- d. Install 24" gauge galvanized mesh 1/4" squares

Illuminated Street Name Signs:
- a. Fluoresco EDGELIT LED sign or tube LED
- b. IMSA 4 Conductor 14AWG Solid, Purple Tape
- c. Use Black and White wire out of 4 conductor

Traffic Signal Street Lights:
- a. General Electric LED Evolve
- b. Roadway Medium Cobrahead
- c. ERS2-0-HX-BX-5-40-1-GRAY-S
- d. IMSA 4 Conductor 14AWG Solid, Orange Tape
- e. Use Black and Red wire out of 4 conductor

http://www.gtt.com
http://www.econolite.com/Products
http://www.aldiscorp.com/
Tappan/Falcon/Belden Wire Companies
www.oldcastleprecast.com
http://www.fluoresco.com
www.gelightingsolutions.com

Traffic Signal Poles & Mast Arms:
- a. Must be ADOT approved Standard Poles (Type A-16', Q, R etc.) See ADOT www.azdot.gov/highways/traffic/SLSds.asp
- b. or City of Peoria Modified "R" Pole See Details PE-037-1, PE-037-2, PE-038-1, PE-038-2 at link below: http://www.peoriaaz.gov/engineering/Docs/Development_Guide/Appendix-

Valmont, Ameron, Millerbernd, Cem-Tex in compliance with ADOT/COP Specs.

Traffic Signal Heads: Satin Black
- a. McCain ADOT Spec. Type V & VII Mounts (PED)
- b. McCain ADOT Spec. Type II, III, & XI 12" Arms Mounts (Signal Heads)

Traffic Signal Heads: Satin Black
- a. McCain 3,4,5, Sectioned heads / 12" indications & Aluminum Constructed Supplied with 12" X 12" visors & Louvered Backplate

Vehicle LED Indications:
- a. 12" Dialight 430 Series ITE COMPLAINT "XL" Series
  433-1210-003XL15 Red Tinted
  433-3230-901XL15 Yel Tinted
  433-2220-001XL15 Grn Tinted

Vehicle LED Arrow Indications:
- a. 12" Dialight 430 Series ITE COMPLAINT "XOD" Series
  432-1314-001XOD15 Red Tinted
  431-3334-901XOD15 Yel Tinted
  432-2324-001XOD15 Grn Tinted

Pedestrian Signal Heads: Satin Black
- a. McCain 16" Housing with Vantage Visor & Aluminum Constructed

Pedestrian LED Indications:
- a. Dialight 16" X 18" Hand/Man Countdown
  430-6479-001X

http://www.mccain-inc.com/
http://www.dialight.com/Product/Category/traffic

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CITY OF PEORIA
STANDARD DETAIL PE-040-2
TRAFFIC SIGNAL ALLOWABLE MATERIALS LIST, PAGE 2

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16

ADA Pedestiran Push Button:
a. 2" Polara (Bulldog) with directional arrow
b. McCain 9" x 12" Housing (Satin Black)

Pedestrian Push Button Sign:
a. MUTCD Approved R10-3e L/R

Service Cabinet:
a. Myers Pedestal Mount MEUG16A-M100

Battery Back-up:
a. Alpha
b. Cabinet 56 outdoor enclosure Guard SAP Card Battery Management
c. ALPHA FXM 1000
d. Cell 195GXL 12V 100Ah

www.polara.com/bulldog
www.myerspowerproducts.com
www.tescocontrols.com

Ethernet Network Switch:
a. RS 900G Network Switch
b. RSG 2100 Network Switch
c. RSG 2200 Network Switch

Ethernet Node Cabinet:
a. Safetran 343 Cabinet with 8" riser

Fiber Optic Distribution Panel:
a. AFL - Lightlink Poli-MOD
b. SC Connectors

CCTV Camera:
a. Axis P5635-E PTZ DomeNetwork Camera

Signal Cabinet & Controller
a. Econolite 77 Cabinet 16158 Rev. H
b. Econolite Cobalt

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CITY OF PEORIA
STANDARD DETAIL PE-041
HAWK WIRING DETAIL

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

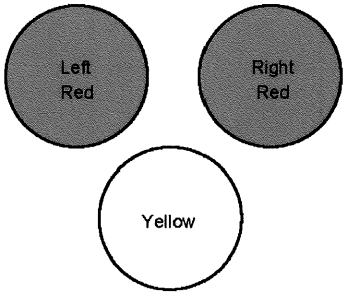
PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16

Z-HAWK WIRING DETAIL STANDARD

TYPE OF SIGNAL	CONDUCTOR	BASIC COLOR	SIGNAL INTERVAL	CONTROL CABINET Field Termination
Signal Heads Mast Arm Indications	5 Conductor #16 AWG	Red	Right Red	
		Green	N/A	
		Black	Left Red	
		Orange	Yellow	
		White	Vehicle Common	
Pedestrian Heads	5 Conductor #16 AWG	Red	Don't Walk	
		Black	Spare	
		Green	Walk	
		Orange	Spare	
		White	Ped Common	
Push Button	2 Conductor #16 AWG	Black	Normally Open	
		White	Button Common	
Northbound Cable 1 Vehicle Phases 3 & 4	25 Conductor #16 AWG	Black/Red	Left Red Indication	Phase 3 Vehicle Red
		Red/Black	Right Red Indication	Phase 4 Vehicle Red
		Orange/Black	Yellow Indication	Phase 4 Vehicle Yellow
Southbound Cable 2 Vehicle Phases 7 & 8	25 Conductor #16 AWG	Black/Red	Left Red Indication	Phase 7 Vehicle Red
		Red/Black	Right Red Indication	Phase 8 Vehicle Red
		Orange/Black	Yellow Indication	Phase 8 Vehicle Yellow
Northbound Cable 1 Pedestrian Phase 2	25 Conductor #16 AWG	Blue	Walk Indication	Phase 2 Ped Walk
		Black	Don't Walk Indication	Phase 2 Ped Don't Walk
		White/Black	Button Normally Open	Ped Call 2 (PC2)
		White	Button Common	AC Common Buss Bar
Southbound Cable 2 Pedestrian Phase 6	25 Conductor #16 AWG	Blue	Walk Indication	Phase 6 Ped Walk
		Black	Don't Walk Indication	Phase 6 Ped Don't Walk
		White/Black	Button Normally Open	Ped Call 6 (PC6)
		White	Button Common	AC Common Buss Bar

TYPE "T" HEAD EXAMPLE

NB PHASE 3 RED (3R)
SB PHASE 7 RED (7R)
LEFT INDICATION



NB PHASE 4 RED (4R)
SB PHASE 8 RED (8R)
RIGHT INDICATION

NB PHASE 4 YELLOW (4Y)
SB PHASE 8 YELLOW (8Y)

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CITY OF PEORIA
STANDARD DETAIL PE-042-1
TRAFFIC SIGNAL WIRING DETAIL

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16

IMSA 25 CONDUCTOR WIRING DETAIL 19-1-16 GAGE HIGH TEMP WIRE

	CONDUCTOR COLOR		
CABLE 1	SOLID COLOR	TRACER COLOR	SIGNAL INTERVAL
Phase 1	Red	White	Red Arrow
EBTL	Black	White	Yellow Arrow
Overlap A	Green	White	Green Arrow
FY Arrow	*Yellow*	*Red*	*FY Arrow*
Phase 2	Red		Red
WBT	Orange		Yellow
Overlap B	Green		Green
Phase 3	Black	Red	Red Arrow
SBLT	Orange	Red	Yellow Arrow
Overlap C	Blue	Red	Green Arrow
FY Arrow	*Yellow*	*Blue*	*FY Arrow*
Phase 4	Red	Black	Red
NBT	Orange	Black	Yellow
Overlap D	Green	Black	Green
Phase 2	Blue		Walk
WB	Black		Don't Walk
Pedestrian	White	Black	Push Button
Phase 4	Blue	White	Walk
NB	Red	Green	Don't Walk
Pedestrian	White	Red	Push Button
Common	White		PB Common
Spare	Blue	Black	Spare
Spare	Brown		Spare
Spare	Brown	White	Spare
Spare	Orange	Green	Spare

	CONDUCTOR COLOR		
CABLE 2	SOLID COLOR	TRACER COLOR	SIGNAL INTERVAL
Phase 5	Red	White	Red Arrow
WBLT	Black	White	Yellow Arrow
Overlap A	Green	White	Green Arrow
FY Arrow	*Yellow*	*Red*	*FY Arrow*
Phase 6	Red		Red
EBT	Orange		Yellow
Overlap B	Green		Green
Phase 7	Black	Red	Red Arrow
NBLT	Orange	Red	Yellow Arrow
Overlap C	Blue	Red	Green Arrow
FY Arrow	*Yellow*	*Blue*	*FY Arrow*
Phase 8	Red	Black	Red
SBT	Orange	Black	Yellow
Overlap D	Green	Black	Green
Phase 6	Blue		Walk
EB	Black		Don't Walk
Pedestrian	White	Black	Push Button
Phase 8	Blue	White	Walk
SB	Red	Green	Don't Walk
Pedestrian	White	Red	Push Button
Common	White		PB Common
Spare	Blue	Black	Spare
Spare	Brown		Spare
Spare	Brown	White	Spare
Spare	Orange	Green	Spare

IMSA 2,5,7 CONDUCTOR SIGNAL HEAD WIRING DETAIL

SIGNAL HEAD	CONDUCTOR CABLE	WIRE COLOR	SIGNAL COLOR
Type F	IMSA 5	Red	Red
		Black	Yellow
		Green	Green
		White	Neutral
		Orange	Spare
Type G	IMSA 7	Red	Red Arrow
		Black	Yellow Arrow
		Green	Green Arrow
		Blue	Spare
		Orange	Flashing Yellow Arrow
		White	Neutral
		White/Black	Spare
Type R	IMSA 7	Red	Red Arrow
		Black	Yellow Arrow
		Green	Green Arrow
		Blue	Spare
		Orange	Spare
		White	Neutral
		White/Black	Spare
Type Q	IMSA 7	Red	Red
		Black	Yellow
		Green	Green
		Blue	Green Arrow
		Orange	Yellow Arrow
		White	Neutral
		White/Black	Spare

STANDARDIZED PHASE TAPE REQUIREMENTS*

PHASE	ONE BAND 3 WRAPS EACH	TWO BANDS 3 WRAPS EACH	COLOR OF TAPE
1	X		Red
2	X		White
3	X		Blue
4	X		Green
5		X	Red
6		X	White
7		X	Blue
8		X	Green

PEDESTRIAN HEAD & BUTTON WIRE COLOR

PEDESTRIAN FEATURE	CONDUCTOR CABLE	WIRE COLOR	SIGNAL COLOR
Head	IMSA 5	Red	Don't Walk
Head	IMSA 5	Black	Spare
Head	IMSA 5	Green	Walk
Head	IMSA 5	White	Neutral
Head	IMSA 5	Orange	Spare
Button	IMSA 2	Black	Norm Open
Button	IMSA 2	White	Common

WIRE & TAPE COLOR REQUIREMENTS FOR METRO SIGNS AND STREET LIGHTS

FEATURE TYPE	CONDUCTOR CABLE	WIRE COLOR	COLOR OF TAPE
Street Lights	IMSA 4	Black/Red	Orange
Metro Signs	IMSA 4	Black/White	Purple

* **Standardized Phase Tape –** Standard Tape Colors for the IMSA cables shown in the table above shall be wrapped accordingly.

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01/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-042-2
TRAFFIC SIGNAL WIRING NOTES

APPROVALS:

CITY ENGINEER 2/6/14 DATE

PUBLIC WORKS-UTILITIES DIRECTOR 02-05-2014 DATE

NOTES:

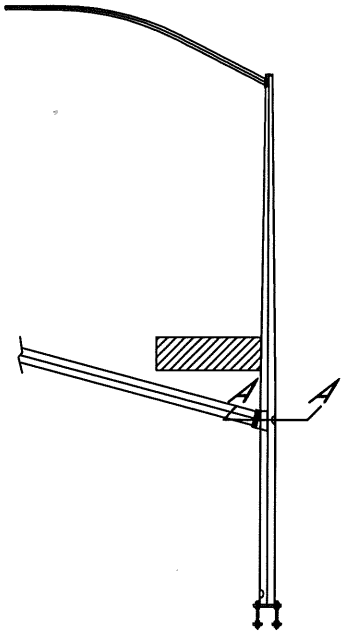
1. Cable #1 shall be marked with 1 tape band at each pull box location. All east/west runs shall be marked with white tape color. All north/south runs shall be marked with green tape color. Cabinet run shall be marked with yellow tape color. Individual conductors in the cable shall be marked with appropriate color to the assigned phase.
2. Cable #2 shall be marked with 2 tape bands at each pull box location with one-half inch (1/2") spacing between tape. All east/west runs shall be marked with white tape color. All north/south runs shall be marked with green tape color. Cabinet run shall be marked with yellow tape color. Individual conductors in the cable shall be marked with the appropriate color to the assigned phase.
3. Spare cable/wire shall be pulled into spare conduit run. Cable/wire shall be unspliced, phase taped appropriately, and layed neatly on bottom of pull box. Earth ground (Green #8) shall be spliced utilitzing appropriate compression crimp at all pull box locations to insure locating (bluestake) capabilities.

CITY OF PEORIA
STANDARD DETAIL PE-043
TRAFFIC SIGNAL POLE DRILLING

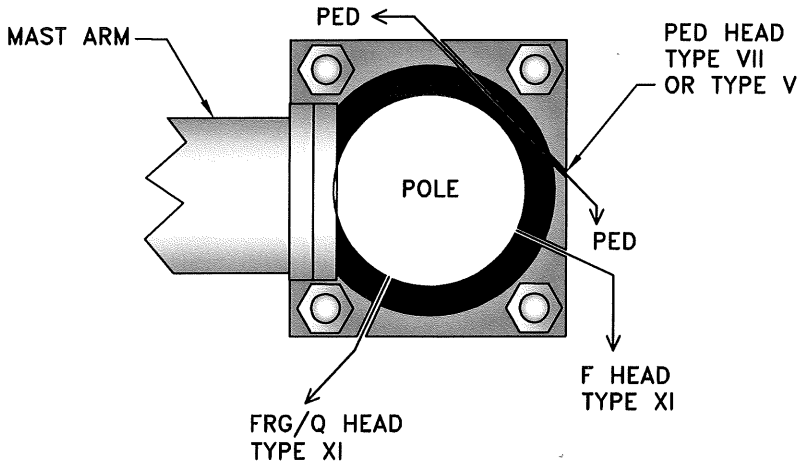
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

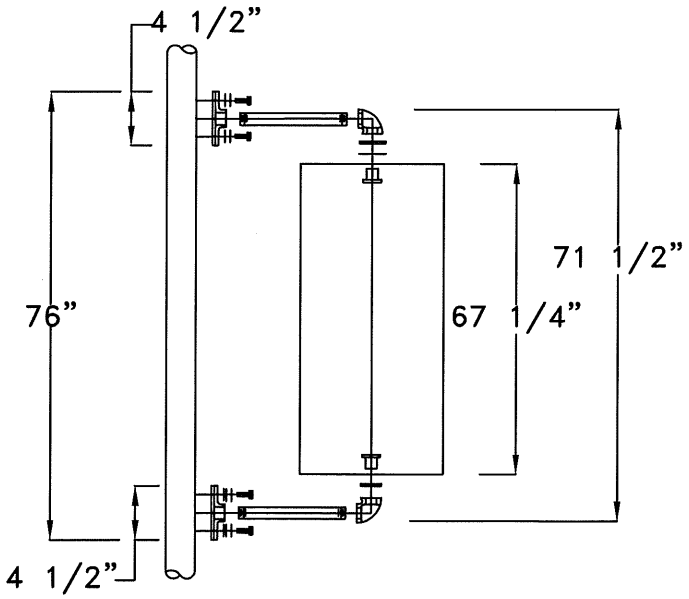
PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16



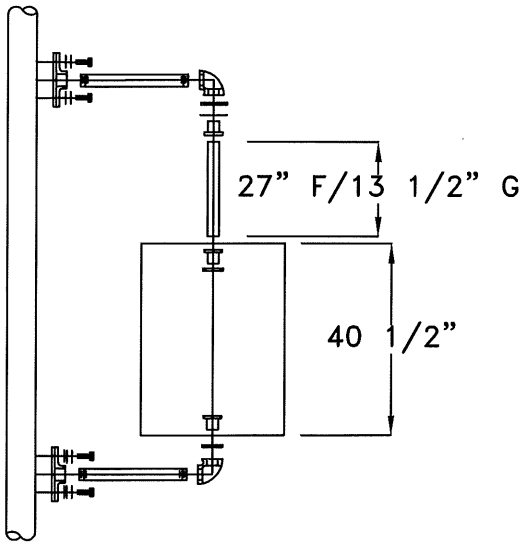
TRAFFIC SIGNAL
(NTS)



POLE DRILLING FOR ALL Q/R POLES W/PEDS
SECTION A-A
(NTS)



Q HEAD MOUNT
TYPE XI (NTS)



F/G/R HEAD MOUNT
TYPE XI (NTS)

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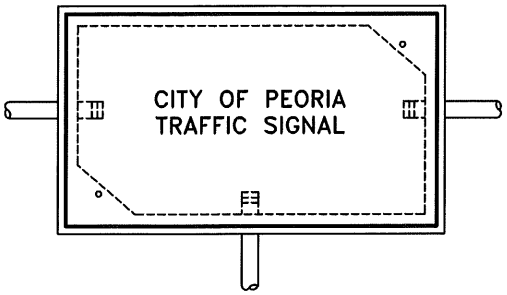
01/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-044-1
TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING

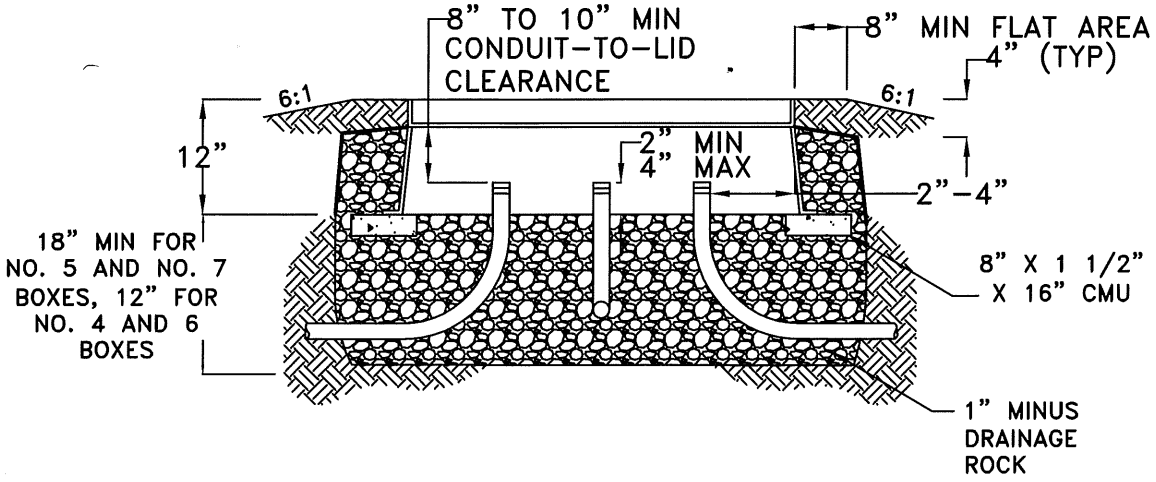
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16



PULL BOX TOP
(NTS)



PULL BOX
(NTS)

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01/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-044-2
TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 1

APPROVALS:

3/7/2016
ENGINEERING DIRECTOR DATE

3/7/16
PUBLIC WORKS-UTILITIES DIRECTOR DATE

NOTES:

1. Conduits to be 4" above bottom and from edge of pull box in the direction pipe enter pull box.
2. All street conduit crossings shall be 2/4" with signal wire in one and communication wire in the other.
3. All conduits shall have bell ends installed to top of all conduits before installation of any wire.
4. Install two 3" conduits to all pole foundations, except "A" pole foundations which will have one.
5. Pull box shall face center of intersection when set radius behind pole back of wheel chair ramps.
6. Pull box shall face parallel to street, sidewalk when not in radius.
7. IMSA 25 conductor to be 18" to 24" above the top of conduit.
8. All camera, preemption & communications cables looped through pull boxes shall have 3' neatly coiled in bottom of box. Wire shall be continuous with no splicing from device to cabinet.
9. Grounding wire shall be compression crimped with copper type "C" crimp. Correct type compression tool shall be used. Insulation shall be stripped back from all earth (green) #8 conductors to within 4" of top of conduit. All wires shall be twisted together prior to insertion into crimp connector.
10. Street light and metro sign wire to be wired next with fuses installed with proper direction to indicate load side points toward devise side.
11. Signal Neutrals shall be compression crimped with copper type "C" crimp. Correct type compression tool shall be used. All wires shall be twisted together prior to insertion into crimp connector. Upon completion of crimp connection, wire(s) shall be Skotch coated then taped.
12. PED push button commons (White Wire) to be spliced in each pull box utilizing one crimp connection.
13. Cable 1 and cable 2 (Active Phases) to be spliced separately. Wire shall be in a neat & organized manner upon completion. Cable outer jacketing shall be striped 4" above the conduit with all individual phases correctly phase taped (According to COP PE-042-1) approximately 12" below the splice point.
14. Active phases in the stranded 25 conductor shall be compression crimped with correct copper splice cap for gauge of wire used. Correct type compression tool shall be used per manufacturers specs. All wires shall be twisted together prior to insertion into crimp connector. All finished bare copper crimps shall be scotchkoted, dried then covered with correct rubber cap for splice used per the manufacturer's specs. Then a final scotchkoting shall be applied to rubber cap & dried. Due diligence shall be used when scotchkoting as to not have connections sticking to everything in the pull box.
15. All unused phases shall be phase taped, cut to an equal length, taped together and laid neatly to the bottom of the pull box.

CITY OF PEORIA
STANDARD DETAIL PE-044-3
TRAFFIC SIGNAL PULL BOX AND WIRE SPLICING NOTES, PAGE 2

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/7/16

16. For 2, 5, and 7 conductor cables, group together spares in an organized way, cut to equal lengths tape ends together and laid neatly on bottom of pull box.
17. Splice only active phases do not splice any wire that is not terminated to an active device.
18. Wire runs from devices to pull boxes will be continuous. No splices at TS blocks in any application.
19. Pull 12" of IMSA cable into the signal device and remove 6" of outer wire jacketing.
20. To terminate solid wire strip 3/4" of insulation and roll over into complete circle, so screw fits in center of circle. Screw touching only copper, no excess copper showing for solid wire.
21. For stranded wire use correct 16 gauge insulated stake on, and correct crimp tool is to be used.

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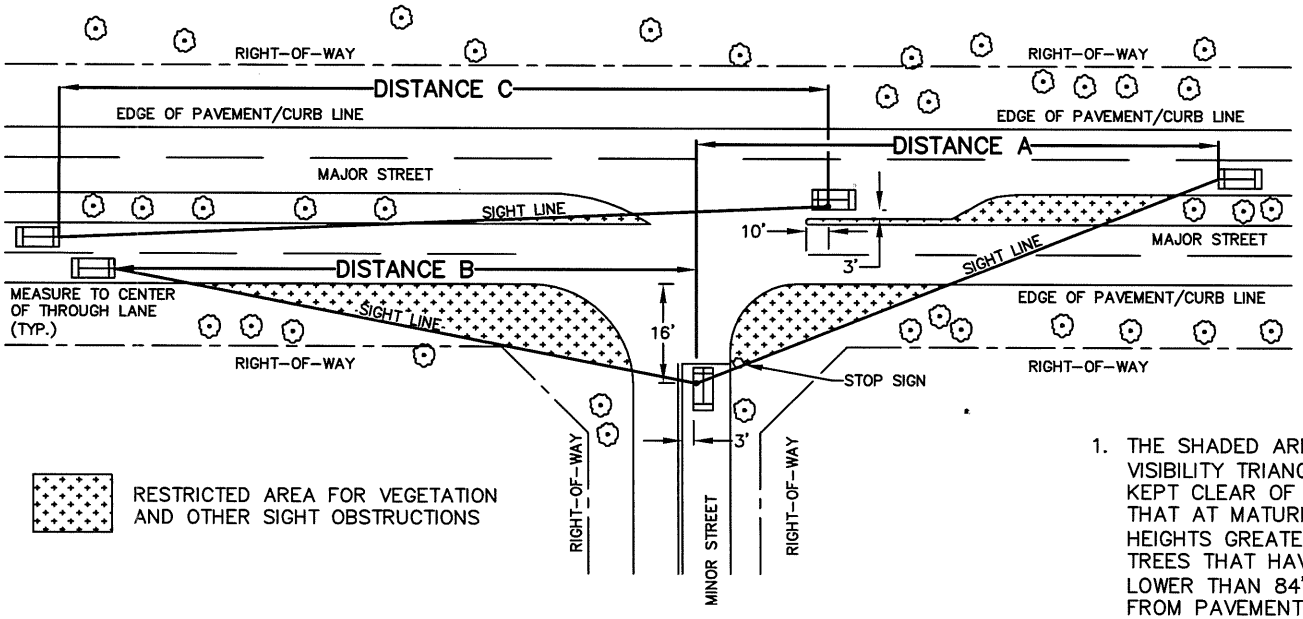


PASSENGER VEHICLE INTERSECTION SIGHT DISTANCE									
DESIGN SPEED (85th PERCENTILE) OF MAJOR STREET	DISTANCE A				DIST. B	DISTANCE C			
	NUMBER OF MAJOR STREET LANES TO CROSS FOR LEFT TURN FROM MINOR STREET (INCLUDING MEDIAN)				RIGHT TURN FROM MINOR STREET	NUMBER OF OPPOSING LANES TO CROSS FOR LEFT FROM MAJOR STREET			
	1	2	3	4		1	2	3	4
25 MPH	280'	300'	320'	340'	240'	210'	230'	240'	260'
30 MPH	340'	360'	380'	400'	290'	250'	270'	290'	310'
35 MPH	390'	420'	440'	470'	340'	290'	310'	340'	370'
40 MPH	450'	480'	500'	530'	390'	330'	360'	390'	420'
45 MPH	500'	530'	570'	600'	430'	370'	400'	430'	470'
50 MPH	560'	590'	630'	670'	480'	410'	450'	480'	520'
55 MPH	610'	650'	690'	730'	530'	450'	490'	530'	570'

1. THE SHADED AREAS (SIGHT VISIBILITY TRIANGLES) SHALL BE KEPT CLEAR OF VEGETATION THAT AT MATURITY WILL HAVE HEIGHTS GREATER THAN 30" AND TREES THAT HAVE BRANCHES LOWER THAN 84"; AS MEASURED FROM PAVEMENT SURFACE.
2. ABOVE GROUND UTILITY FACILITIES AND APPURTENANCES ABOVE 30" IN HEIGHT SHALL NOT BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.
3. SIGNAGE APPROVED BY THE CITY FOR USE IN THE ROW MAY BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.
4. THE DRAWING DEPICTS A TYPICAL PASSENGER VEHICLE WITH GRADES OF 3% OR LESS. ADJUSTMENTS FOR GRADES GREATER THAN 3% SHALL BE MADE PER AASHTO.
5. DESIGN VEHICLE SHALL BE DETERMINED BY THE CITY ENGINEER. REFER TO AASHTO FOR SIGHT DISTANCE REQUIREMENTS FOR A SINGLE UNIT TRUCK AND COMBINATION TRUCK.

PEORIA ARIZONA

Rev. January, 2016

CITY OF PEORIA - STANDARD DETAIL

Intersection Sight Visibility Triangle

TRAFFIC ENGINEER — DATE 3/8/16

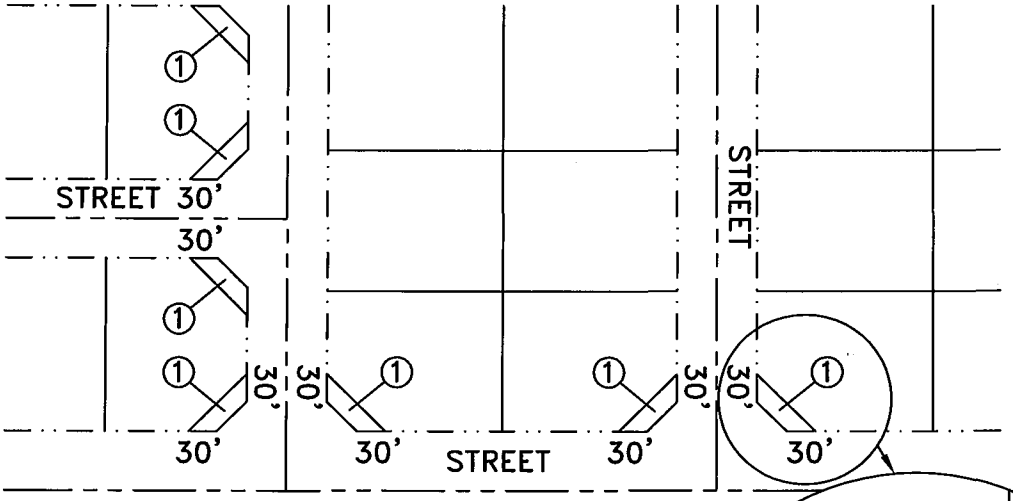
ENGINEERING DIRECTOR — DATE 3/7/2016

FIRE CHIEF — DATE N/A

DETAIL # PE-090

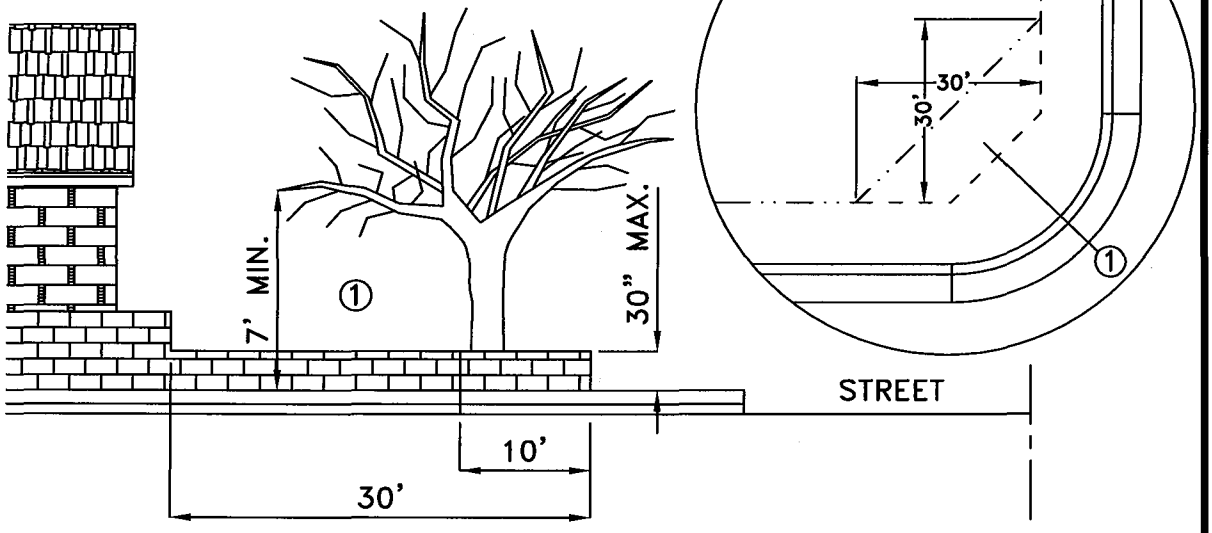
CITY OF PEORIA
STANDARD DETAIL PE-091
UNOBSTRUCTED VIEW EASEMENT REQUIREMENTS FOR STREETS

APPROVALS: David Mead 2/22/07
CITY ENGINEER DATE



① UNOBSTRUCTED VIEW EASEMENT AREA.

PLAN VIEW



1. SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANTS, BUT EXCLUDING TREES OVER 30 INCHES IN HEIGHT SHALL NOT BE PERMITTED WITHIN THE RESTRICTED AREAS EXCEPT AS APPROVED BY CITY TRAFFIC ENGINEER.

2. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES ARE PLANTED SO AS NOT TO OBSTRUCT MORE THAN 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.

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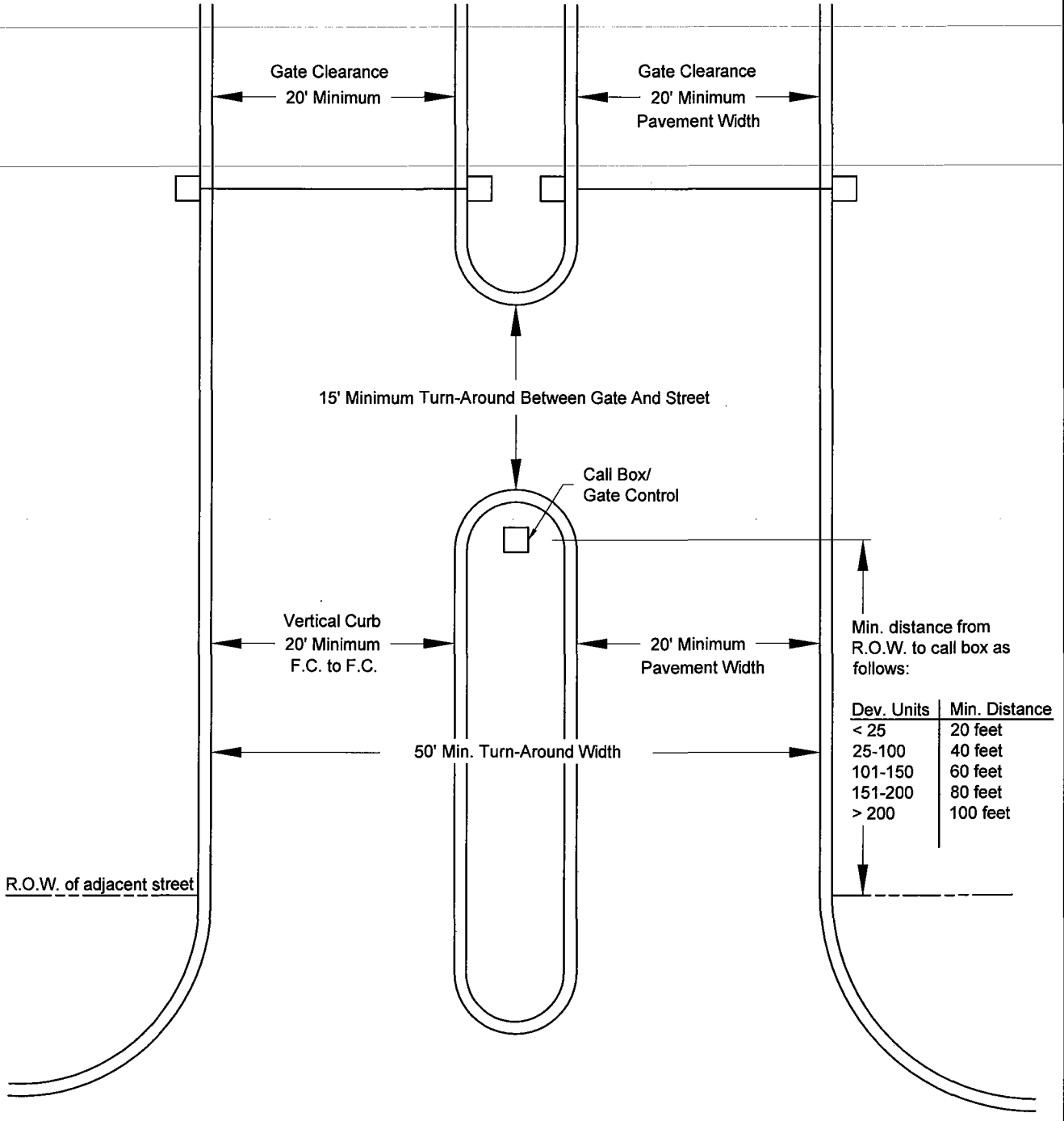
01/22/2007

CITY OF PEORIA
STANDARD DETAIL PE-100
MINIMUM REQUIREMENTS FOR GATED ENTRANCES TO RESIDENTIAL SUBDIVISIONS

APPROVALS:

CITY ENGINEER _____ DATE 2/14/08



Dev. Units	Min. Distance
< 25	20 feet
25-100	40 feet
101-150	60 feet
151-200	80 feet
> 200	100 feet

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01/24/2008

CITY OF PEORIA
STANDARD DETAIL PE-101-1
ALLOWABLE MATERIALS LIST, PAGE 1

APPROVALS: 5/26/16 ENGINEERING DIRECTOR DATE; 5/26/16 PW-UTILITIES DIRECTOR DATE

Materials allowed for construction in Peoria shall be per Maricopa Association of Governments, Uniform Specifications and Details for Public Works Construction except as provided below.

Water Line Materials:

a. Waterline and plumbing materials shall comply with NSF 61 latest edition and be lead free. No exceptions for non-potable systems.
b. Ductile Iron Pipe, pressure class 350, is acceptable for waterline sizes 8" and 12" in diameter.
c. Ductile Iron Pipe, pressure class 250 minimum, is acceptable for waterlines 16" in diameter and larger.
d. Polywrap for Ductile Iron Pipe shall be in conformance with Section 610.6 of the MAG Standard Specifications.

Fire Hydrants (Wet Barrel) as manufactured by:
AVK, Clow, Jones, and Mueller, break-off check valves shall be Clow Model LB400 or AVK Series 2488 Flowguard II.

Valves:
Shall be resilient seated, solid wedge gate valves meeting AWWA standards for potable water and shall open by turning counter clockwise.

Sewer Line Materials:

a. Vitrified Clay Pipe (VCP), which conforms with Section 743 of the MAG Standard Specifications is acceptable for sewer line sizes 8" and larger.
b. PVC SDR 35 Sewer Pipe, which conforms with Section 745 of the MAG Standard Specifications is acceptable for sewer line sizes 8" through 15" in diameter.
c. Sewer service piping shall be SCH-40 PVC.

Sewer Force Main Materials:

a. PVC AWWA C-900, DR14 or DR18 for 12" diameter and less.
b. Ductile Iron Pipe (with approved lining) for greater than 12" diameter or greater than 10' deep.

Reclaimed Waterline Materials:

a. Ductile Iron Pipe as specified for waterlines.
b. PVC AWWA C-900 DR14 or DR18 for 12" diameter and less.

Utility Markers:
Carsonite "Curve Flex" utility markers shall be used for all manholes and valves located outside of paved areas.

Manhole Coating:
Epoxy coated - manhole base and coating system with a minimum wet film thickness of 125 mils. The epoxy coating system shall be one of the following:

1. RLS Raven 405
2. Joseph Painting Sewer Shield 101
3. Neopoxy NPR-5300
4. Sauereisen Sewergard No. 210

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CITY OF PEORIA
STANDARD DETAIL PE-101-2
ALLOWABLE MATERIALS LIST, PAGE 2

APPROVALS:

CITY ENGINEER — DATE 5/21/13

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 05-20-2013

Storm Drain Pipe: Class IV or V Rubber Gasket Reinforced Concrete Pipe (RGRCP) Per MAG Standard Specification 735 and 765.

Tracer Wire: #6 Coated Copper Wire

Paint Colors:

a. Storm Drain Facilities:
   - Metal: 603 DEC 721 Slopes.
   - Concrete: TBD by Engineering Department City Engineer

b. Irrigation System Facilities
   - Potable: Evershield EVSH50-1 Blue
   - Non-Potable: Evershield TBD by Engineering Department City Engineer
   - Reclaimed: Pantone 512 or equal.

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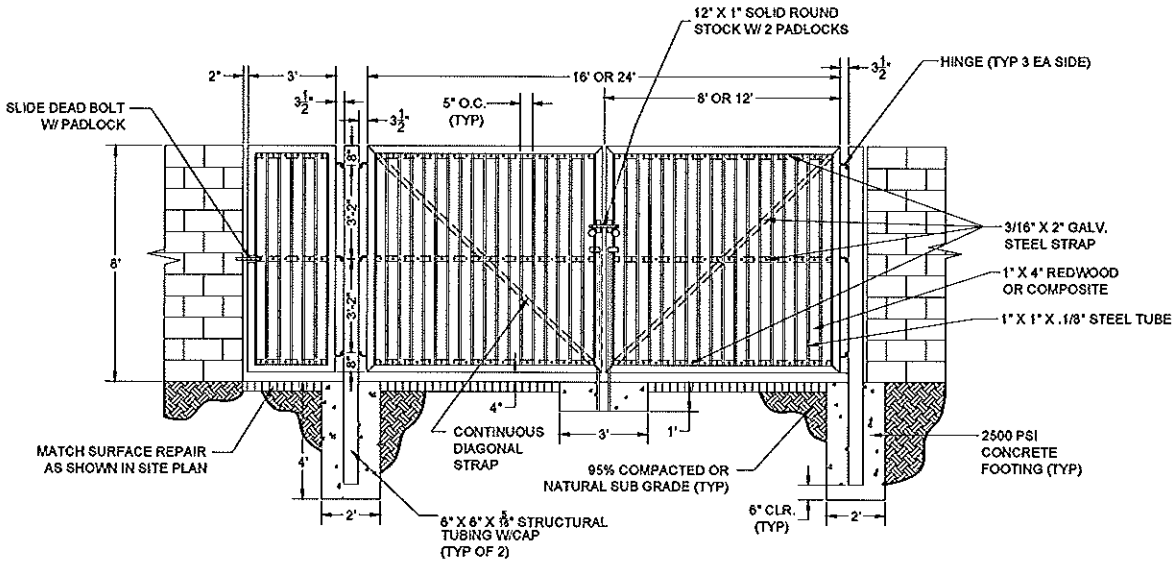
CITY OF PEORIA
STANDARD DETAIL PE-102
CITY FACILITY SERVICE/ACCESS GATE

APPROVALS:

CITY ENGINEER — DATE 2/6/14

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 02-05-2014



NOTES:

1. FRAME OF GATES AND DOOR TO BE CONSTRUCTED FROM 3" X 3" X ¼" STRUCTURAL TUBING WITH WELDED MITRE JOINTS (TOP, BOTTOM, AND SIDE JOINTS)
2. DIAGONAL STRAP TO BE WELDED ON BOTH SIDES OF EACH INTERSECTION WITH HORIZONTAL STRAPS.
3. BLOCK AT DOOR OPENING TO BE COVERED WITH ¼" GALV. FACE PLATE ATTACHED WITH ½" ANCHOR BOLT @ 12" O.C.
4. REDWOOD SLATS TO BE ATTACHED BY ⅜" X 2" CARRAGE BOLTS, NUT, AND WASHER. NUTS ON INSIDE OF ENCLOSURE. (TYP 3 EACH SLAT)
5. COMPOSITE MATERIAL OF ACCEPTABLE APPEARANCE AND STRUCTURAL INTEGRITY WILL BE ALLOWED IN PLACE OF THE REDWOOD SLATS.

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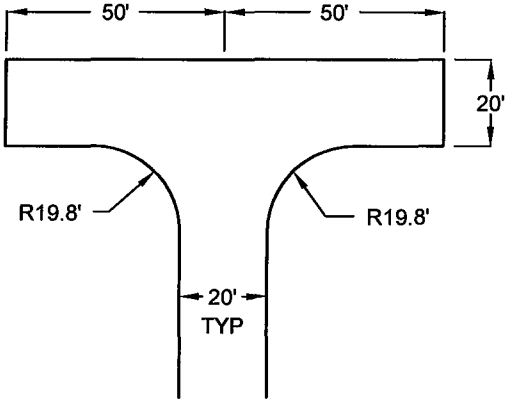
CITY OF PEORIA
STANDARD DETAIL PE-110
WB50 TURNAROUND

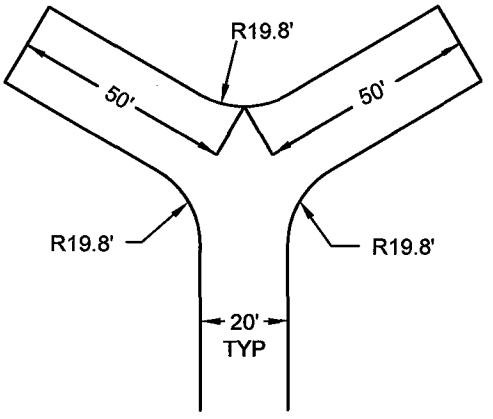
APPROVALS:

CITY ENGINEER — DATE 9/22/07

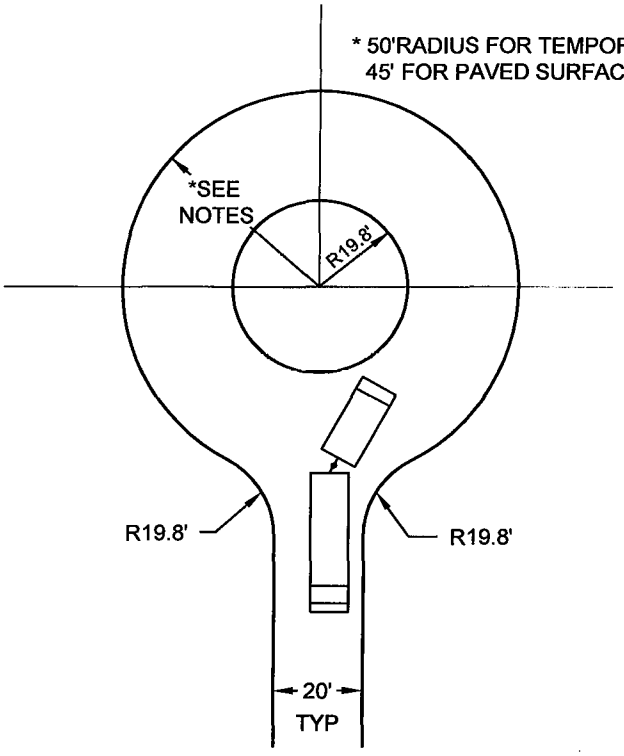
FIRE CHIEF — DATE 8-20-07



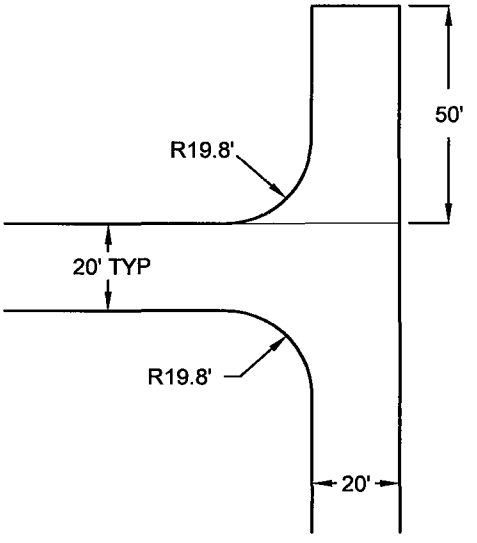
100'
HAMMERHEAD



ACCEPTABLE ALTERNATE
TO 100' HAMMERHEAD



90'
CUL-DE-SAC



ACCEPTABLE ALTERNATE
TO 100' HAMMERHEAD

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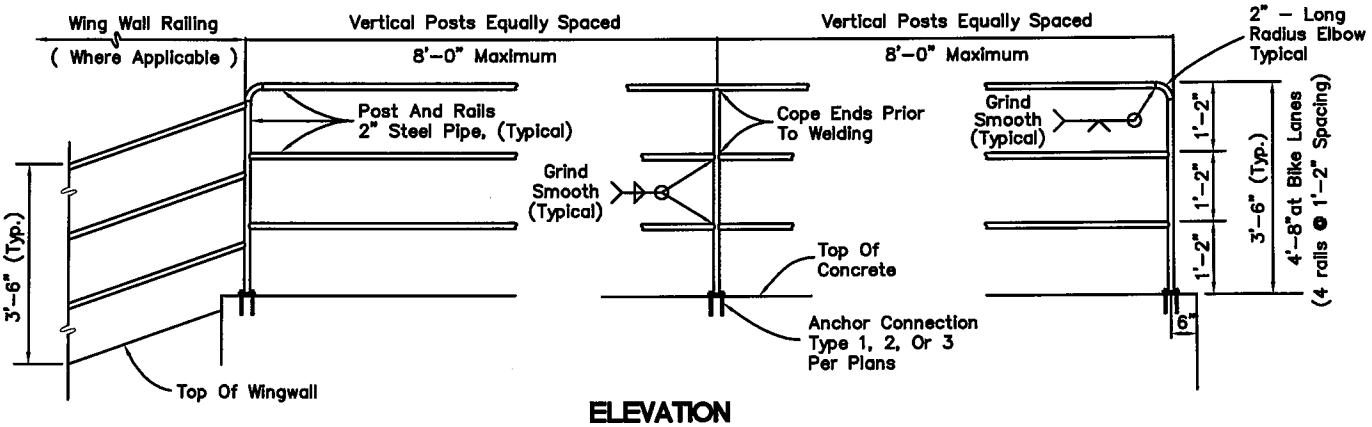
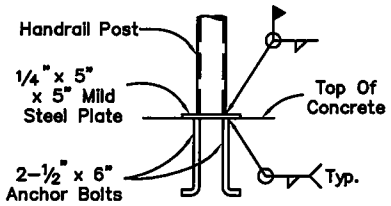
08/20/2007

CITY OF PEORIA
STANDARD DETAIL PE-119
HANDRAIL DETAIL

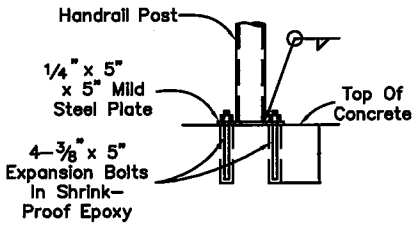
APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



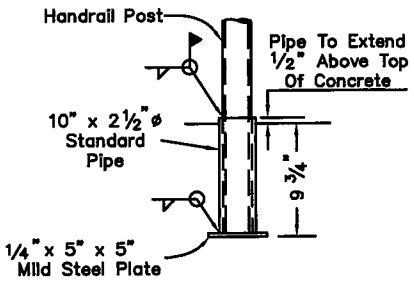
ELEVATION



TYPE 1
ANCHOR PLATE DETAIL



TYPE 2
EXPANSION BOLT DETAIL



TYPE 3
PIPE SLEEVE DETAIL

NOTES:

1. Paint handrail per MAG Specifications Section 530. Per City of Peoria Standard Detail PE-101-2.
2. Vertical posts to be evenly spaced.
3. To be installed as required by plans or specifications.

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02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-121-1
MASONRY RETAINING WALL

APPROVALS: _____ 2/6/14
CITY ENGINEER DATE

Design Assumptions:

1. Soil bearing value used in design is 1000 psf. Equivalent Fluid Pressure: 35 psf. If site conditions do not meet min criteria, Please contact City Engineering Department.
2. Bottom of footing 32" below natural grade.
3. Concrete to conform to MAG Class B, 2500 psi at 28 days.
4. All Concrete Blocks shall be Grade A, medium weight units conforming to ASTM C-90.
5. Reinforcing steel shall be ASTM A615, Grade 60.
6. Minimum Lap for all reinforcing shall be 30 bar diameters or 18", whichever is greater.
7. All Cells shall be filled solid with 2500psi grout. Use Type S 1800psi mortar.
8. All Horizontal bars shall be in channel or lintel blocks.
9. Compaction of Backfill shall not be less than 95% and shall conform to MAG standard 211.
10. Provide 2" diameter drains at 4' 0" with cont. gravel pockets.
11. Refer to City of Peoria STD. General Notes & Grading Drainage Notes.

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CITY OF PEORIA
STANDARD DETAIL PE-121-2
MASONRY RETAINING WALL

APPROVALS: _____ 2/22/07
CITY ENGINEER DATE

Backfill Slope	Retained Height H	Ftg. Width W	Wall Thickness T1	Wall Thickness T2	Reinforcing Bar					
					A Bar	B Bar	C Bar	D Bar	E Bar	F Bar
0:1	0' - 3' 0"	3' 0"	8	-	#5 @ 32"	-	3 - #4	2 - #4	-	-
	3' 1" - 4' 0"	3' 6"	8	-	#5 @ 32"	-	3 - #4	3 - #4	-	-
	4' 1" - 5' 0"	4' 0"	8	-	#7 @ 16"	-	4 - #4	3 - #4	-	-
	5' 1" - 6' 0"	5' 0"	12	8	#5 @ 24"	#5 @ 24"	4 - #4	4 - #4	-	-
	6' 1" - 7' 0"	6' 0"	12	8	#6 @ 16"	#5 @ 32"	5 - #4	4 - #4	#6 @ 16"	-
	7' 0" - 8' 0"	7' 0"	12	8	#9 @ 16"	#5 @ 32"	6 - #4	5 - #4	#5 @ 16"	#5 @ 16"
2:1	0' - 3' 0"	3' 0"	8	-	#5 @ 32"	-	3 - #4	2 - #4	-	-
	3' 1" - 4' 0"	4' 0"	8	-	#5 @ 32"	-	4 - #4	3 - #4	-	-
	4' 1" - 5' 0"	5' 0"	8	-	#7 @ 16"	-	4 - #4	4 - #4	-	-
	5' 1" - 6' 0"	5' 6"	12	8	#5 @ 24"	#5 @ 24"	4 - #4	4 - #4	#5 @ 12"	-
	6' 1" - 7' 0"	6' 6"	12	8	#6 @ 16"	#5 @ 32"	5 - #4	5 - #4	#5 @ 16"	#5 @ 16"
	7' 0" - 8' 0"	10' 6"	12	8	#9 @ 16"	#5 @ 32"	6 - #4	6 - #4	#6 @ 16"	#6 @ 16"

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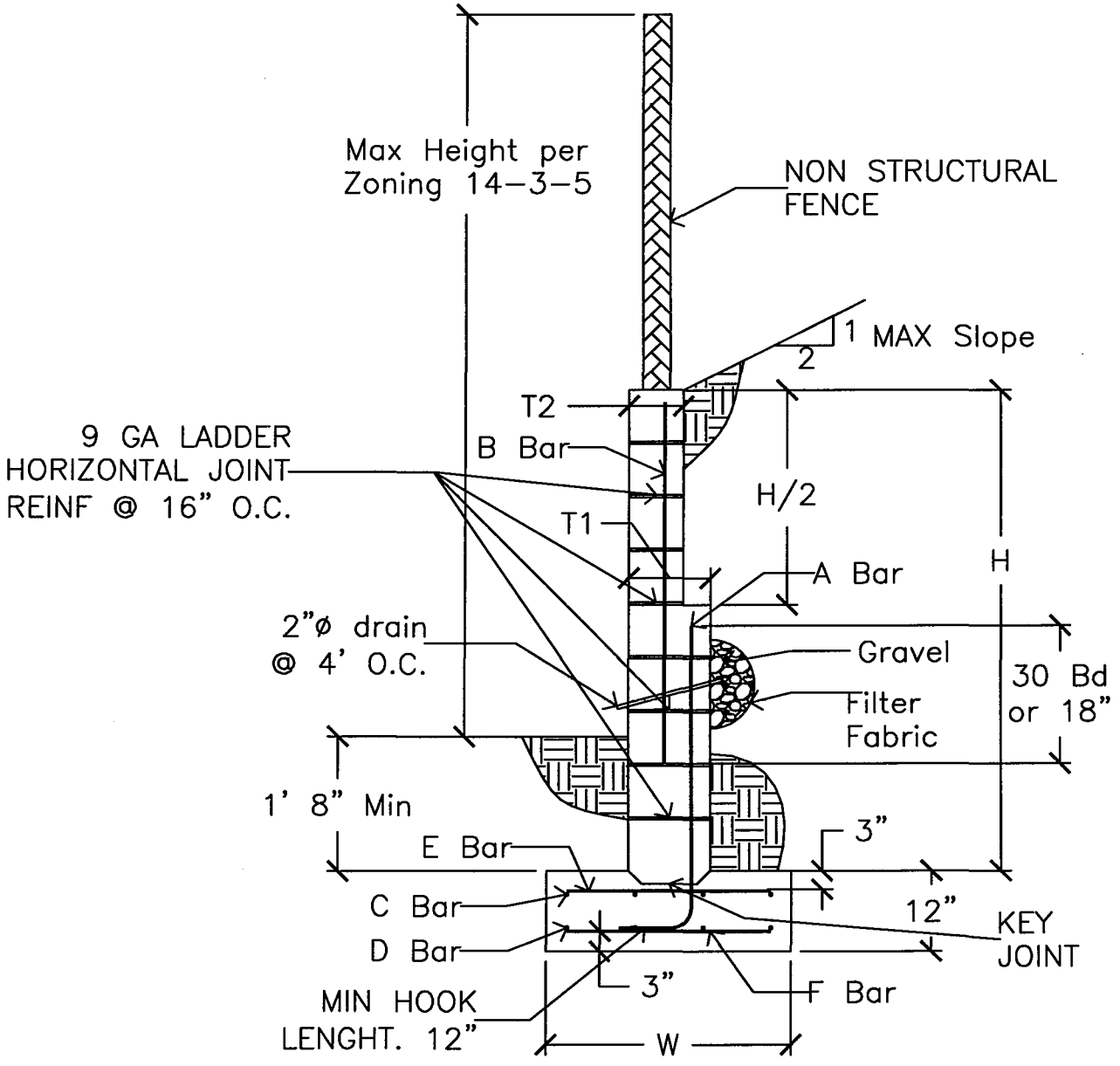
CITY OF PEORIA
STANDARD DETAIL PE-121-3
MASONRY RETAINING WALL

APPROVALS: David J Mucci 2/22/07
CITY ENGINEER DATE



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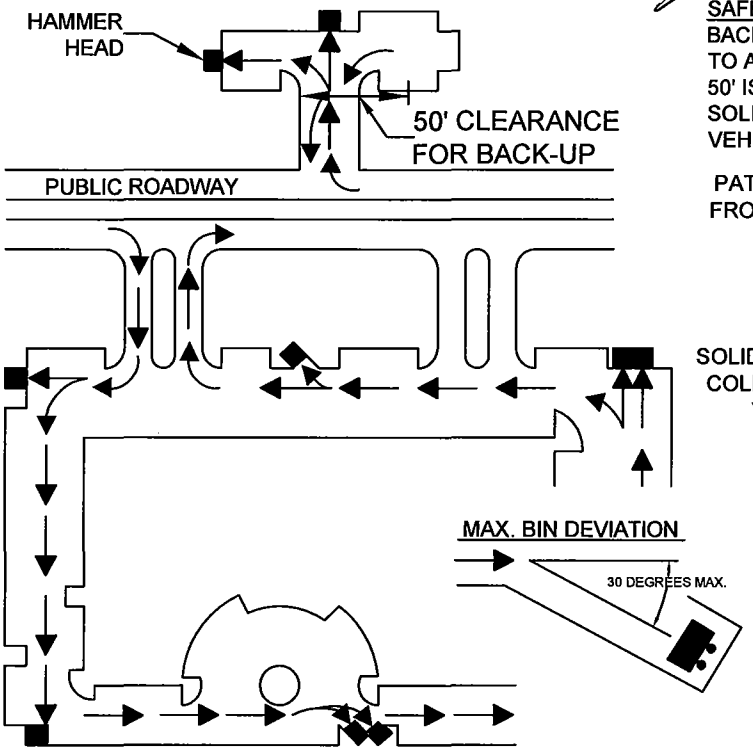
01/22/2007

CITY OF PEORIA
STANDARD DETAIL PE-146-1
SOLID WASTE VEHICLE ACCESS

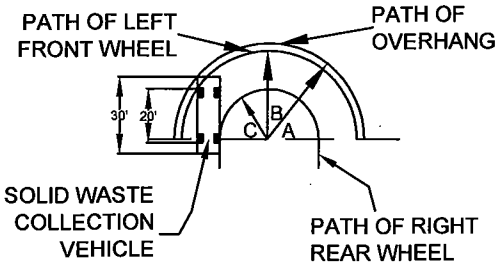
APPROVALS:

CITY ENGINEER — DATE 4/16/09

PUBLIC WORKS DIRECTOR — DATE 04-06-2009



SAFETY NOTE:
BACKING UP MORE THAN 50' AFTER SERVICE TO A SOLID WASTE BIN IS PROHIBITED. THE 50' IS MEASURED FROM THE BACK OF THE SOLID WASTE COLLECTION VEHICLE. THE VEHICLE IS APPROX. 30' LONG.



CLEARANCE REQUIREMENTS:
A- 43.9' MIN. TURNING RADIUS
B- 42' TURNING RADIUS
C- 28.4' TURNING RADIUS

PLEASE NOTE:
SOLID WASTE VEHICLES WEIGH APPROX. 20 TONS WHEN FULL. DRIVEWAYS MUST BE BUILT TO SUPPORT THIS WEIGHT WITHOUT DAMAGE TO DRIVE.

NOTES:

1. ALL CURBS ARE TO BE ALIGHNED ON THE OUTSIDE OF ENCLOSURE WALLS. THE CURBS SHALL NOT INTERFERE WITH THE ROUTE OF THE SOLID WASTE COLLECTION VEHICLE.

2. IN GENERAL TERMS, ALL SOLID WASTE COLLECTION ROUTES SHALL MEET ENGINEERING DESIGN CRITERIA (STREET WIDTHS, TURNING RADII) IN A MANNER THAT ALLOWS SOLID WASTE COLLECTION VEHICLES ACCESS TO BIN ENCLOSURES SITES SHALL BE DESIGNED SO COLLECTION VEHICLES CAN SAFELY ACCESS AND LIFT A BIN WITHOUT OBSTRUCTIONS (GROUND LEVEL AND AERIAL OBSTRUCTIONS).

3. FOR THE SAFETY OF OTHERS, SOLID WASTE COLLECTION VEHICLES WILL NOT BACK UP MORE THAN 50 FEET AFTER SERVICING A BIN.

4. NO AWNINGS OR BUILDING PROJECTIONS ALLOWED IN SOLID WASTE COLLECTION VEHICLE ROUTES. MIN. OVERHEAD CLEARANCE OF 14' IS REQUIRED IN DRIVE AND 25' OVER BIN ENCLOSURE AREA FROM STEEL SAFETY POSTS BACK 50'.

5. ROUTES SHALL BE CLEAR OF ALL OBSTRUCTIONS (CURBS, WALLS, OVERHEAD WIRES, AND AWNINGS) TO PREVENT DAMAGE FROM THE COLLECTION VEHICLE.

6. TAKE NOTE OF THE SOLID WASTE COLLECTION ROUTE. THE COLLECTION VEHICLE SHALL TRAVEL THROUGH A SITE ONCE WITHOUT BACKTRACKING.

7. BIN ENCLOSURES ARE TO BE ANGLED NO MORE THAN 30 DEGREES FROM THE CENTER LINE OF THE SOLID WASTE COLLECTION VEHICLE ROUTE.

8. BIN ENCLOSURES SHALL BE LOCATED AWAY FROM ENTRANCED AND EXITS SO SOLID WASTE COLLECTION VEHICLE DOES NOT CREATE A SAFETY HAZARD BY BLOCKING IN-COMING OR OUT-GOING TRAFFIC.

9. STANDARDS FOR SINGLE, DOUBLE, AND TRIPLE-WIDE BIN ENCLOSURES ARE ADDRESSED IN PE-146-2 AND PE-146-3.

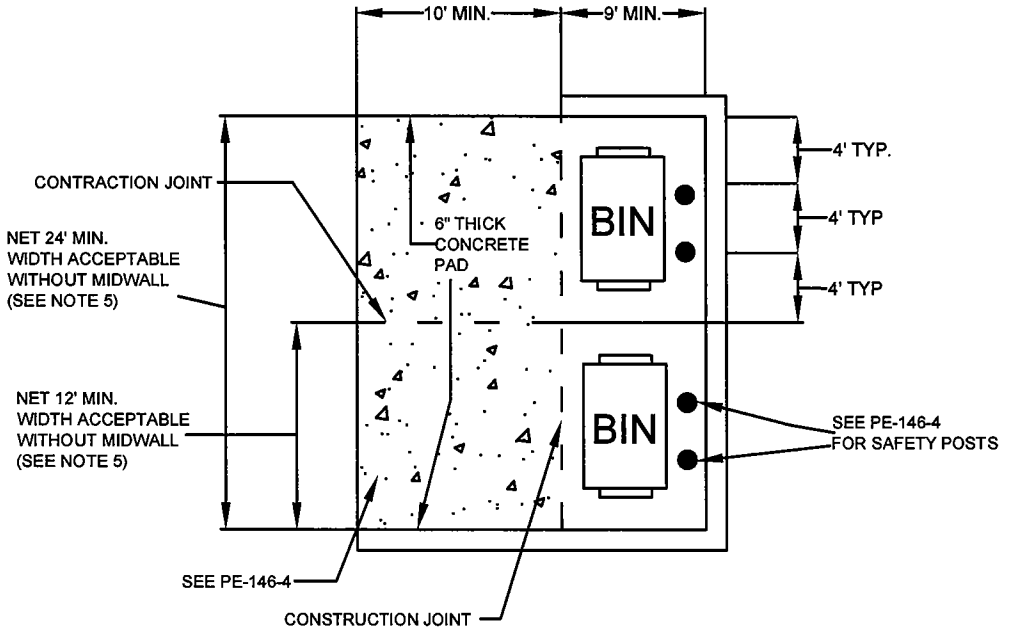
10. STANDARDS FOR BIN ENCLOSURE SCREEN WALLS, SAFETY POSTS, AND GATES ARE ADDRESSED IN PE-146-4.

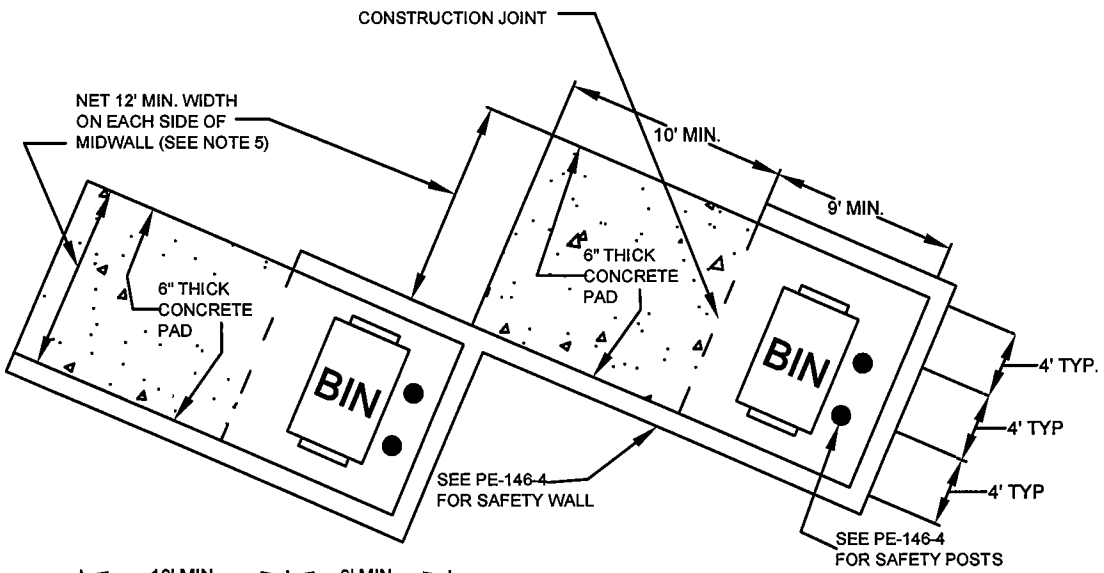
CITY OF PEORIA
STANDARD DETAIL PE-146-2A
SINGLE AND DOUBLE-WIDE BIN ENCLOSURES

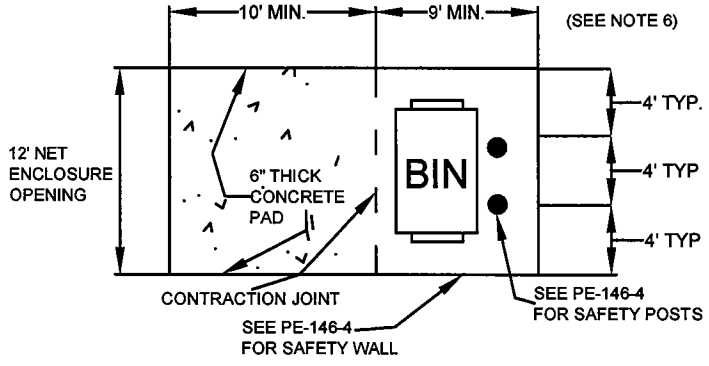
APPROVALS:

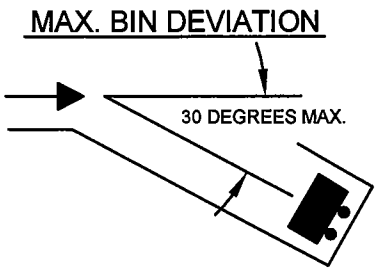
CITY ENGINEER — DATE 3/27/12

PUBLIC WORKS DIRECTOR — DATE 03-06-2012









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03/05/2012

CITY OF PEORIA
STANDARD DETAIL PE-146-2B
SINGLE AND DOUBLE-WIDE BIN ENCLOSURES NOTES

APPROVALS:

ENGINEERING DIRECTOR — DATE 6/24/15

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 6/24/15

NOTES

1. All non-residential properties shall be designed with bin enclosures to accommodate refuse/recycle bins, with 1 bin for every 20,000 square feet of building space. A minimum of 2 refuse/recycle bins shall be accommodated. The enclosures can be set up as doubles or singles to maximize the use of the property.

2. Multi-unit residential developments shall be designed with bin enclosures and accommodate a minimum of 2 refuse/recycle bins with either single or double-wide enclosures .

3. Compactors can be used in developments where the employees load and activate the compacting equipment. Developments that allow customers or residents access to the compacting equipment will not be approved. Maricopa County regulations require twice per week collection if food waste is placed into containers.

4. The number of refuse/recycle bins needed for multi-unit residential development depends on the size of the development. The minimum, total volume capacity is determined from the calculation of one-half cubic yard per living unit per week. For example, a development with 240 units x .5 yards = 120 yards per week or 10 trash bins (6 yard) serviced two times per week (10 x 6 x 2 = 120 yards).

5. Single-wide bin enclosures shall have a net enclosure opening of 12 feet.

6. Double-wide bin enclosures shall have a net enclosure opening of 24 feet without midwalls. Although not preferred, double wide bin enclosures can be designed with midwalls with a net enclosure opening of 12 feet on each side of midwall.

7. Gates, hinges & mounting hardware shall be installed so there is a minimum 9 foot depth created within each enclosure.

8. Gates, hinges & mounting hardware shall not intrude upon minimum net enclosure opening.

9. Bin enclosures are to be angled no more than 30 degrees from the center line of the solid waste collection vehicle route.

10. All enclosures shall have gates that screen the bins from public view.

11. Bin enclosures to be a minimum of 3 feet from any non-combustible planned or existing structure at its closest point; 5 feet from any combustible planned or existing structure at its closest point.

12. Standards for solid waste vehicle access are addressed in PE-146-1.

13. Standards for triple wide enclosures are addressed in PE-146-3.

14. Standards for bin enclosure screen walls, safety posts, and gates are addressed in PE-146-4.

15. Restaurants must provide a separate enclosed area to accommodate their grease trap. This designated area must not interfere with the refuse/recycling collection.

16. Additional items such as landscaping control boxes and lighting may be positioned on the outside of the enclosure walls.

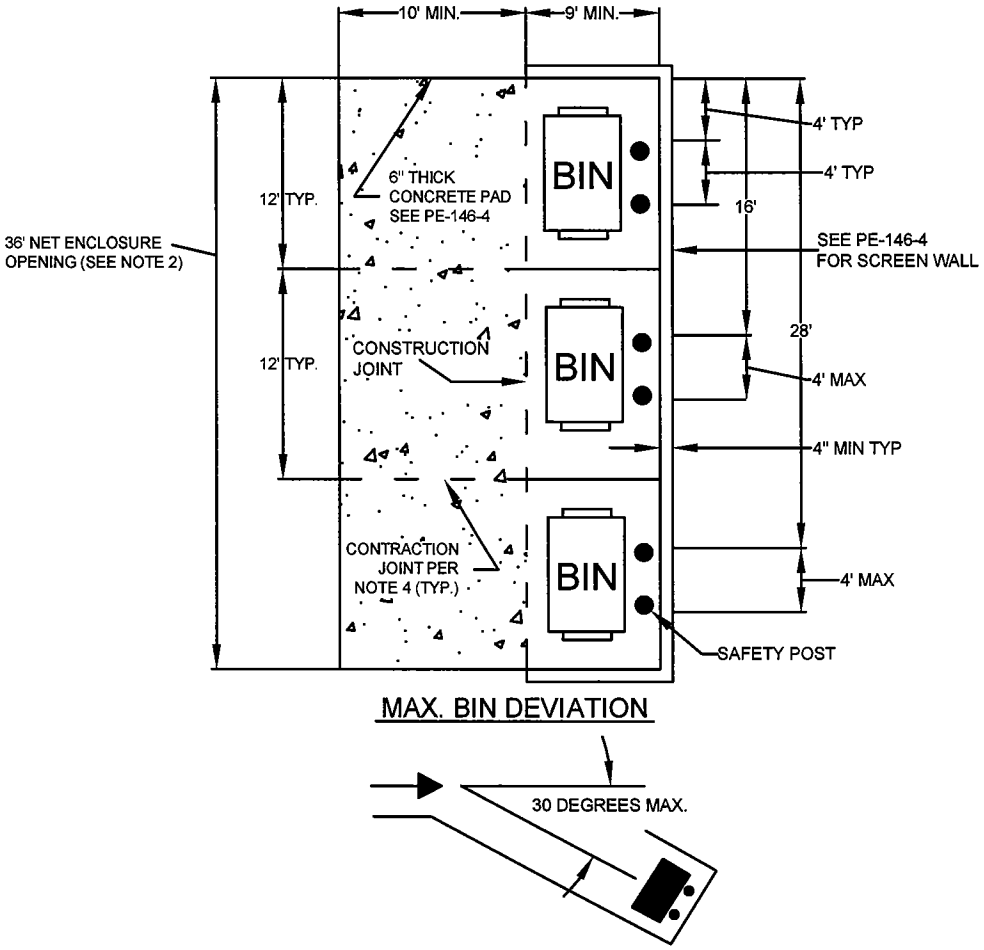
17. A connection to the water system (installation of hose bib) shall not be allowed to facilitate cleaning of the enclosure.

18. A connection to the sewer system (installation of grate/drain) shall not be allowed to facilitate the wash down and cleaning of the enclosure.

CITY OF PEORIA
STANDARD DETAIL PE-146-3
TRIPLE-WIDE BIN ENCLOSURES

APPROVALS:

CITY ENGINEER	DATE	PUBLIC WORKS DIRECTOR	DATE
	3/27/12		03-06-2012



Notes

1. Triple-wide enclosures shall have a net enclosure opening of 36 feet and shall be designed without midwalls, gates hinges, and mounting hardware shall not intrude upon minimum net enclosure opening.

2. Gates, hinges, and mounting hardware shall be installed so there is a minimum 9 foot depth created within each enclosure.

3. Bin enclosures are to be angled no more than 30 degrees from the center line of the solid waste collection vehicle route.

4. Contraction joints may be either scored or sawcut 1-inch deep.

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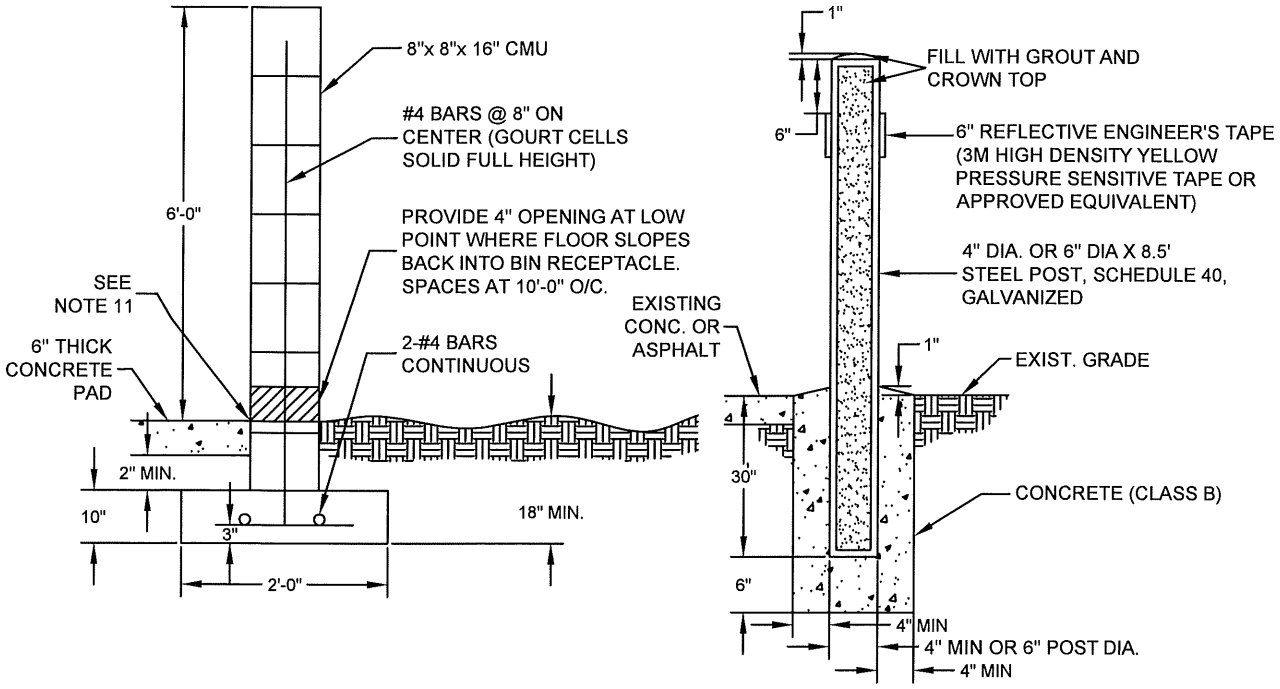
09/29/2011

CITY OF PEORIA
STANDARD DETAIL PE-146-4
BIN ENCLOSURE SCREEN WALL, SAFETY POST & GATE STANDARDS

APPROVALS: 6/24/15 6/29/15

ENGINEERING DIRECTOR DATE PUBLIC WORKS-UTILITIES DIRECTOR DATE



NOTES

1. REFUSE AND RECYCLING BIN AREA SHALL BE SCREENED WITH A SIX FOOT (6') MASONRY WALL PER DETAIL ON THIS SHEET.

2. BIN ENCLOSURE TO BE A MINIMUM OF 3 FEET FROM ANY PLANNED OR EXISTING STRUCTURE AT ITS CLOSEST POINT.

3. ALL ENCLOSURES SHALL HAVE GATES THAT SCREEN THE BINS FROM PUBLIC VIEW.

4. GATES SHALL BE INSTALLED SO THERE IS A NET BIN ENCLOSURE OPENING OF 12 FEET PER BIN. GATES, HINGES, AND MOUNTING HARDWARE SHALL NOT INTRUDE UPON MINIMUM NET ENCLOSURE OPENING.

5. GATES, HINGES, AND MOUNTING HARDWARE SHALL BE INSTALLED SO THERE IS A MINIMUM 9 FOOT DEPTH CREATED WITHIN EACH ENCLOSURE.

6. EACH ENCLOSURE GATE SHALL HAVE DROP PINS INSTALLED AND HOLES DRILLED IN THE CONCRETE AT BOTH THE OPEN AND CLOSED POSITIONS TO PREVENT GATES FROM CLOSING INTO THE COLLECTION VEHICLE.

7. BIN ENCLOSURE SHALL HAVE (2) 4" DIAMETER STEEL SAFETY POSTS INSTALLED IN THE BACK OF THE ENCLOSURE ONLY PER DETAIL ON THIS SHEET.

8. SAFETY POSTS SHALL HAVE A HEIGHT OF 6 FEET OR BE EQUAL TO THE HEIGHT OF THE BACK SCREEN WALL OF THE ENCLOSURE. SAFETY POSTS SHALL BE PLACED A MINIMUM OF 4" FROM THE WALL.

9. USE CLASS "A" CONCRETE EXCEPT AS NOTED IN SAFETY POST DETAIL ON THIS SHEET.

10. STEEL REINFORCEMENT SHALL BE GRADE 40.

11. EXPANSION JOINT FILLER SHALL BE ½" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER ASTM D-1751.

12. EXTERIOR FINISH OF 6 FOOT MASONRY SCREEN WALLS SHALL BE COORDINATED ARCHITECTURALLY WITH PRIMARY BUILDING FINISHES.

13. SOIL BELOW THE WALL FOOTER AND CONCRETE PAD SHALL BE COMPACTED TO A DEPTH OF 6 INCHES AND TO A MINIMUM DRY DENSITY OF 90% IN ACCORDANCE WITH ASTM D-2922 AND D-3017, AFTER ADJUSTMENT FOR ROCK CORRECTION.

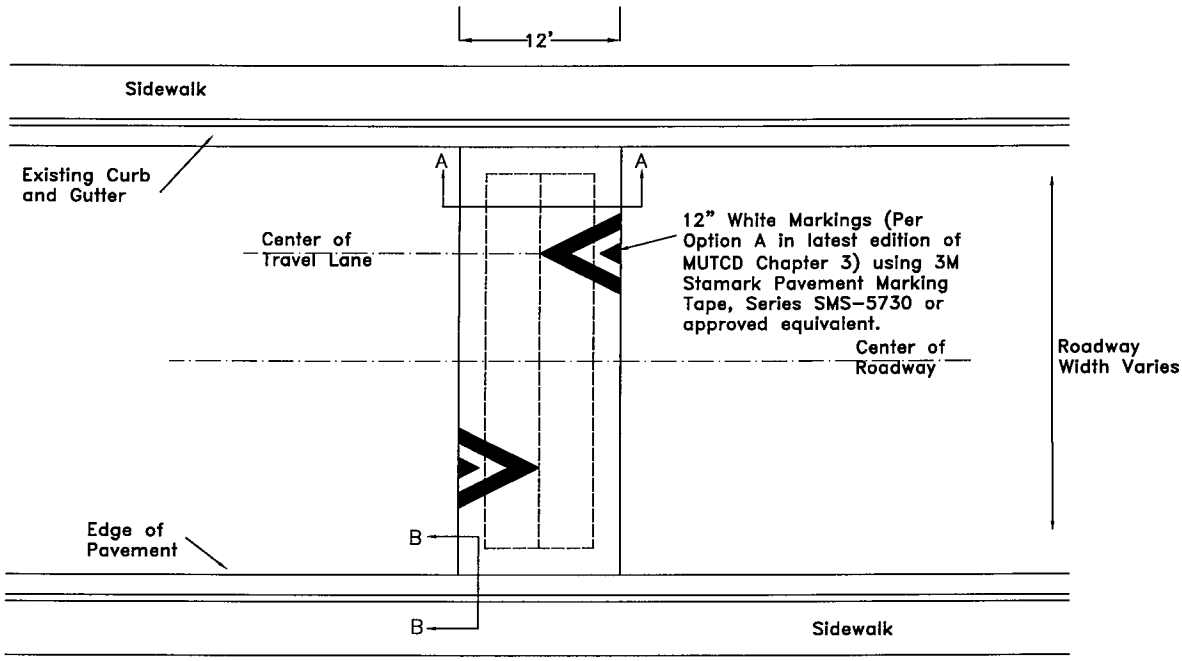
14. STANDARDS FOR SOLID WASTE VEHICLE ACCESS ARE ADDRESSED IN PE-146-1.

15. STANDARDS FOR SINGLE, DOUBLE, AND TRIPLE-WIDE BIN ENCLOSURES ARE ADDRESSED IN PE-146-2 AND PE-146-3.

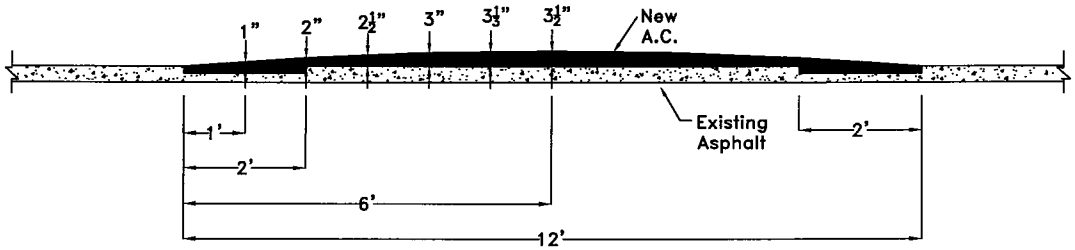
I:\Archive\Guide\Details\2015\MidYear2015DetailChanges\PE-146-4

CITY OF PEORIA
STANDARD DETAIL PE-210-1
SPEED HUMP

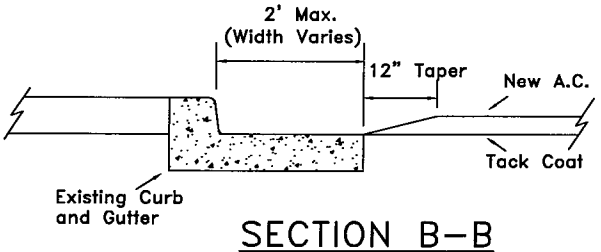
APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



PLAN VIEW



SECTION A-A



SECTION B-B

Important:
To gain maximum effect, speed humps must be the full 3.5". Speed humps shall be 3.5" high with an allowable maximum tolerance of ± 0.25". Contractors must not exceed this height based on consideration for emergency and fire department vehicles. Because of this concern, any speed humps constructed over 3.75" must be corrected at the contractors expense.

NOTES:
1. Cross section shows approximate elevations for 3.5" speed hump.
2. Speed humps shall not be placed over manholes, water valves, survey monuments, junction chambers, in conflict with driveways, or adjacent to fire hydrants.
3. Speed humps must be placed at locations approved and specified by the Public Works/Engineering Department.
4. Speed humps shall be constructed with an approved D1/2 Coarse hot mix, per City of Peoria standards. A tack coat shall be applied prior to application of pavement.
5. Contractor must provide verification of cross-section dimensions.
6. Contractor must properly compact humps to preclude excessive settlement.
7. The contractor shall provide a two year warranty on labor and material. Contractee should request contractor to warrant height to be at least 3.25" tall after 24 months.
8. Permanent striping shall be Thermoplastic Hot Tape or 3M Sta-Mark Series SMS-5730 or approved equivalent.

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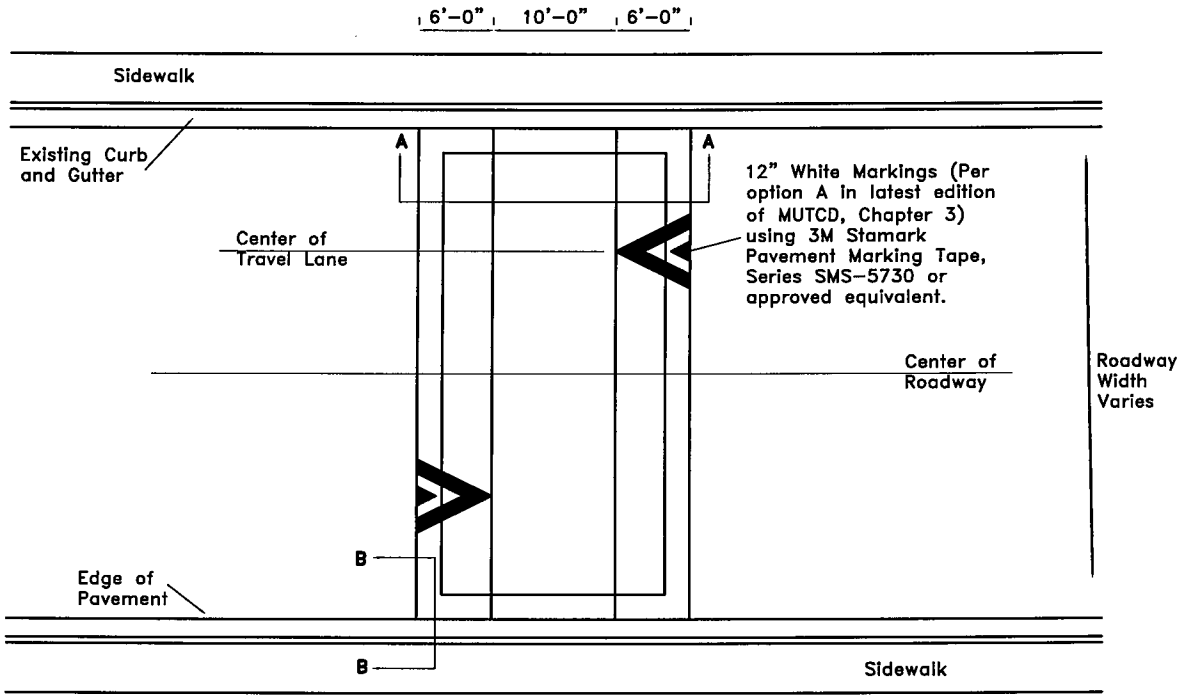
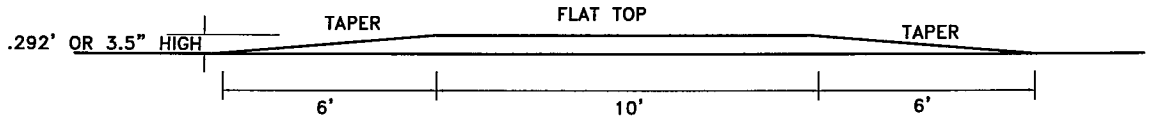
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-210-2
SPEED TABLE

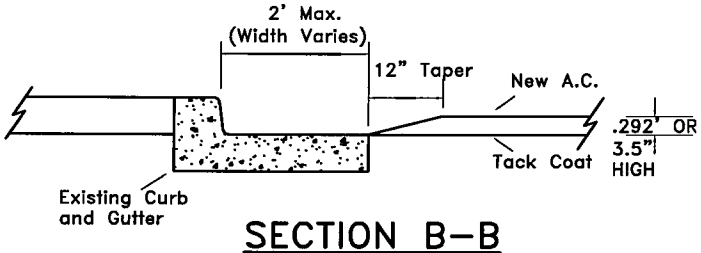
APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



PLAN VIEW



SECTION A-A



SECTION B-B

Important:
To gain maximum effect, speed tables must be the full 3.5". Speed tables shall be 3.5" high with an allowable maximum tolerance of ± 0.25". Contractors must not exceed this height based on consideration for emergency and fire department vehicles. Because of this concern, any speed tables constructed over 3.75" must be corrected at the contractors expense.

NOTES:
1. Cross section shows approximate elevations for 3.5" speed table.
2. Speed tables shall not be placed over manholes, water valves, survey monuments, junction chambers, in conflict with driveways, or adjacent to fire hydrants.
3. Speed tables must be placed at locations approved and specified by the Public Works/Engineering Department.
4. Speed tables shall be constructed with an approved D1/2 Coarse hot mix, per City of Peoria standards. A tack coat shall be applied prior to application of pavement.
5. Contractor must provide verification of cross-section dimensions.
6. Contractor must properly compact tables to preclude excessive settlement.
7. The contractor shall provide a two year warranty on labor and material. Contractee should request contractor to warrant height to be at least 3.25" tall after 24 months.
8. Permanent striping shall be Thermoplastic Hot Tape or 3M STA-Mark Series SMS-5730 or approved equivalent.

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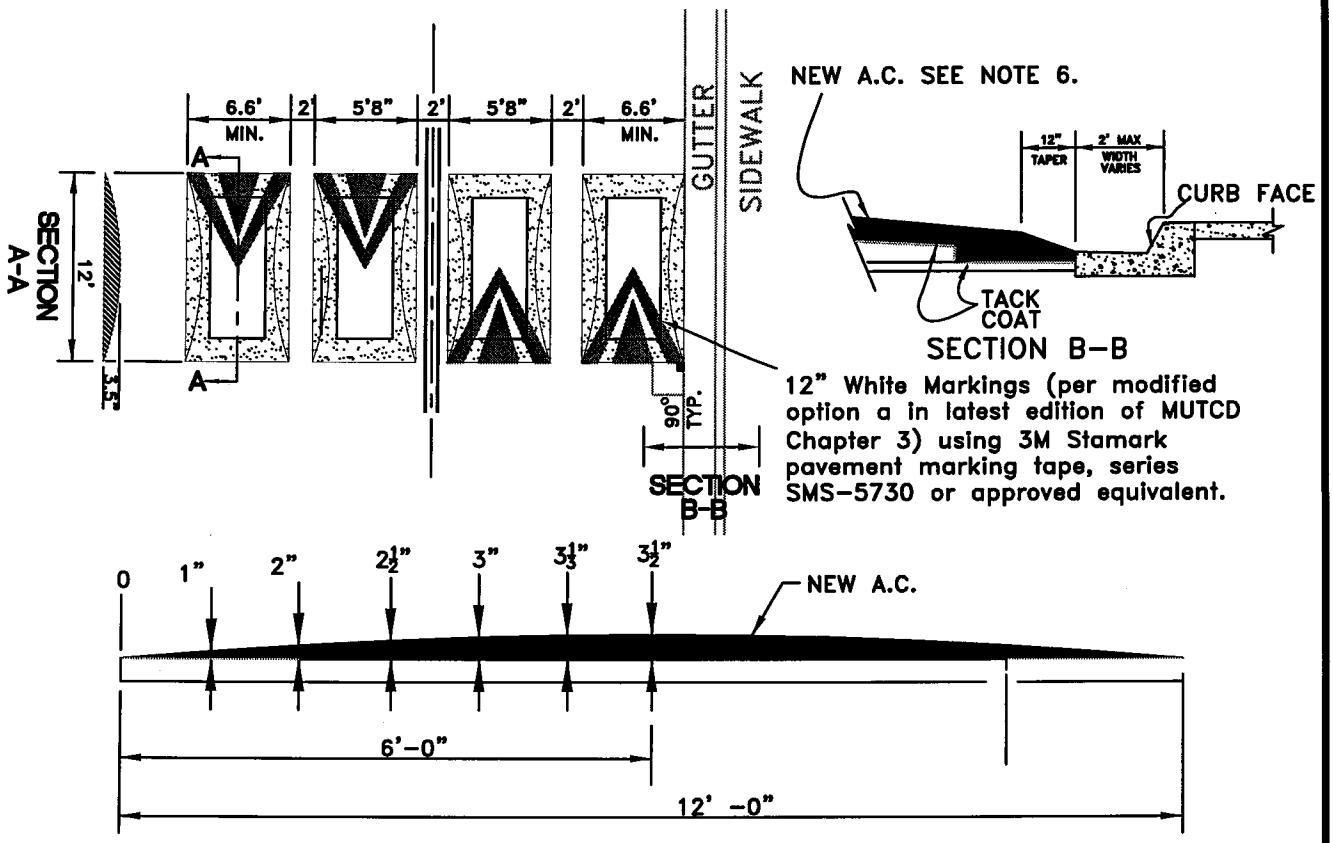
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-210-3A
12' SPEED CUSHION

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE



SECTION A-A

NOTES:

1. Details show approximate elevations for a speed cushion.
2. Speed cushions must be placed at locations approved and specified by the city of peoria engineering department.
3. Centerline stripe may not be in the center of the roadway, but if not striped, position cushions symetrical to center of roadway.
4. Position speed cushions on straight sections of roadway.
5. Speed cushions shall not be placed over manholes, water valves, junction chambers, survey monuments, adjacent to fire hydrants or in conflict with driveways.
6. Cushions to be constructed with an approved d½ coarse hot mix, per city of peoria standard or mag ⅜" mix.
7. A tack coat shall be applied prior to application of asphalt.
8. Contractor shall provide verification of dimensions.
9. Contractor shall stripe the cushions as per attached pavement marking detail.

IMPORTANT:

To gain maximum effect, Cushions must be constructed as per the shown details, with an allowable tolerance of + 0.25". Contractors must comply based on consideration for emergency and fire department vehicles. Because of this concern, any deviation from the shown dimensions must be corrected at the contractor's expense. The outer cushions must be extended to the edge of pavement with a minimum width being 6.6'.

02/11/2013

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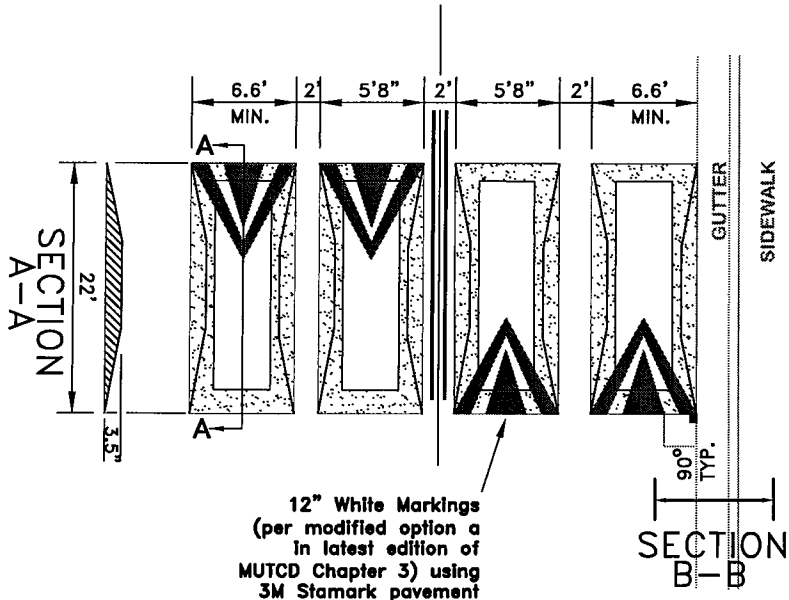
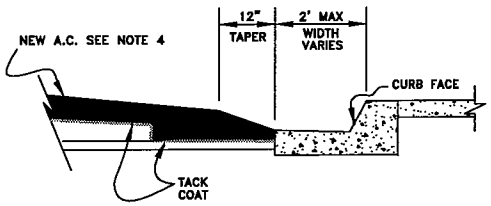
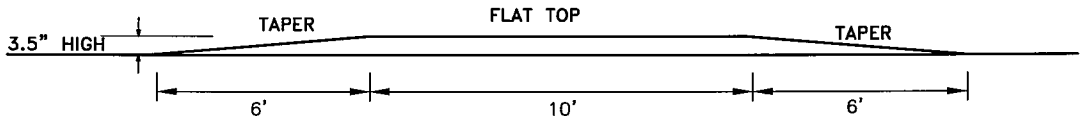
CITY OF PEORIA
STANDARD DETAIL PE-210-3B
22' SPEED CUSHION

APPROVALS: _____ 5/21/13
CITY ENGINEER DATE





SECTION B-B



SECTION A-A

NOTES:
1. Cross section shows approximate elevations for 3.5" modified speed table.
2. Modified speed tables shall not be placed over manholes, water valves, survey monuments, junction chambers, in conflict with driveways, or adjacent to fire hydrants.
3. Modified speed tables must be placed at locations approved and specified by the Public Works/Engineering Department.
4. Modified speed tables shall be constructed with an approved D½ Coarse hot mix, per City of Peoria standards OR MAG ⅜" mix. A tack coat shall be applied prior to application of pavement.
5. Contractor must provide verification of cross-section dimensions.
6. Contractor must properly compact tables to preclude excessive settlement.
7. The contractor shall provide a two year warranty on labor and material. Contractee should request contractor to warrant height to be at least 3.25" tall after 24 months.
8. Permanent striping shall be Thermoplastic Hot Tape or 3M STA-Mark Series SMS-5730 or approved equivalent.

Important:
To gain maximum effect, modified speed tables must be the full 3.5". Modified speed tables shall be 3.5" high with an allowable maximum tolerance of ± 0.25". Contractors must not exceed this height based on consideration for emergency and fire department vehicles. Because of this concern, any modified speed tables constructed over 3.75" must be corrected at the contractors expense.

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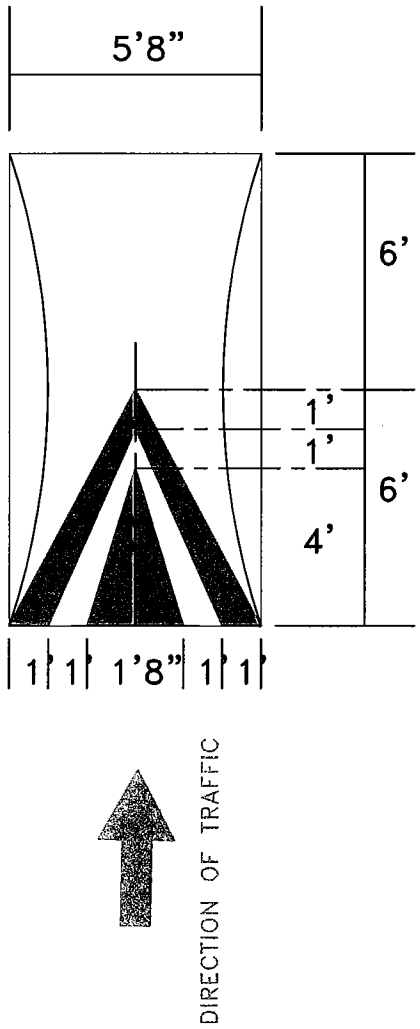
02/11/2013

CITY OF PEORIA
STANDARD DETAIL PE-210-3C
SPEED CUSHION PAVEMENT MARKINGS

APPROVALS: _____ 4/14/09
CITY ENGINEER DATE



NOTES

1. AFTER INSTALLATION, CONTRACTOR SHALL TEMPORARILY STRIPE THE CUSHIONS WITH WATER BASED PAINT PER ADOT 7.08 SPECS.
2. CONTRACTOR SHALL PERMANENTLY STRIPE THE SPEED CUSHIONS WITH 12" WHITE MARKINGS 30 DAYS AFTER INSTALLATION.
3. PERMANENT STRIPING SHALL BE THERMOPLASTIC HOT TAPE OR 3M STA-MARK SERIES SMS-5730 OR APPROVED EQUIVALENT.
4. APPLY 3M CONTACT CEMENT, E-44 OR APPROVED EQUIVALENT TO THE ROADWAY FOR STRIPING INSTALLATION.

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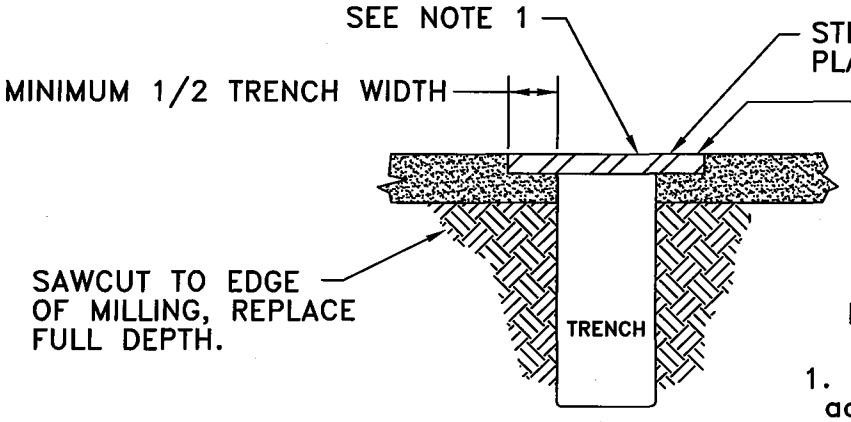
04/10/2009

CITY OF PEORIA
STANDARD DETAIL PE-211
TRENCH PLATING

APPROVALS: Daniel Mraz 1/22/07
CITY ENGINEER DATE

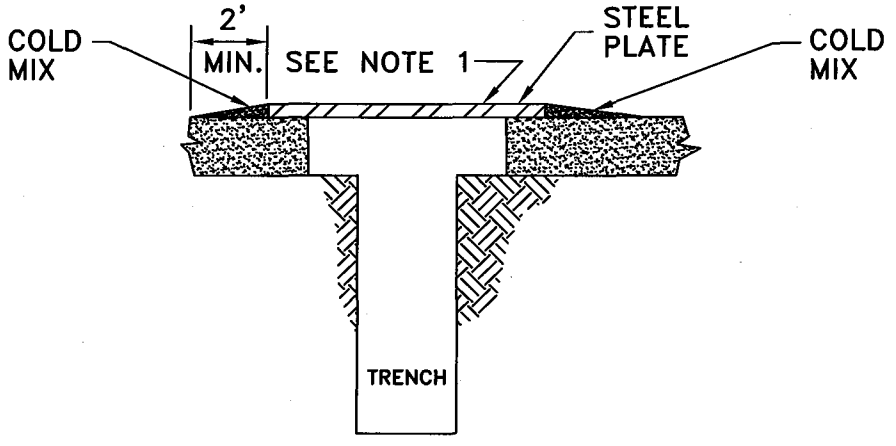


TYPE "A" PLATING

CITY POSTED SPEEDS OF GREATER THAN 25 MPH OR BUS & TRUCK ROUTE

NOTES

1. The contractor shall provide adequate overlap of plate on asphalt to assure no slippage of plate and no collapsing of trench.
2. "Posted Speed" does not include temporary construction signing.



TYPE "B" PLATING

CITY POSTED SPEEDS OF 25 MPH AND UNDER

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01/23/2007

CITY OF PEORIA
STANDARD DETAIL PE-241-1
SIDEWALK RAMP NOTES

APPROVALS:

ENGINEERING DIRECTOR — DATE 6/24/15

PW-UTILITIES DIRECTOR — DATE 6/29/15

NOTES:

1. CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION = 0". RAMP CURBS SHALL BE FLUSH WITH GUTTER PAN WHERE INDICATED AT 0" AS WELL.

2. CONCRETE CURB AND GUTTER AT CURB RETURNS WITH RAMPS SHALL BE M.A.G. CLASS A. CONCRETE SIDEWALK AND RAMPS AT CURB RETURNS SHALL BE M.A.G. CLASS A. SUBGRADE PREPARATION SHALL BE PER MAG SPECIFICATIONS.

3. RAMP CURBS MAY BE POURED MONOLITHIC WITH A CONSTRUCTION JOINT.

4. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751, INSTALLED AS SHOWN ON MAG DETAIL 230.

5. RAMP LANDINGS SHALL BE 8'-10' FOR MULTI-USE PATH CROSSINGS.

6. CONCRETE SHALL BE 9" THICK FOR ALL RAMPS ON ONE OR MORE ARTERIAL OR COLLECTOR STREETS (OR AT OTHER LOCATIONS WHERE INDUSTRIAL/TRUCK TRAFFIC IS ANTICIPATED) AS INDICATED ON EACH RAMP DETAIL. FOR RAMPS ON LOCAL STREETS, CONCRETE SHALL BE 5" THICK.

7. DIRECTIONAL RAMPS SHALL BE INSTALLED FOR EACH MARKED OR UNMARKED CROSSWALK AT ALL INTERSECTIONS, UNLESS OTHERWISE APPROVED BY THE CITY TRAFFIC ENGINEER.

8. TRUNCATED DOMES SHOULD ALIGN ON BOTH SIDES OF THE CROSSING AND RAMPS MAY BE ROTATED TO ALIGN PROPERLY IF NECESSARY.

9. SOME MODIFICATION OF THE RAMP DETAILS WILL BE NECESSARY TO ACCOMMODATE CITY OF PEORIA SIDEWALK WIDTH REQUIREMENTS OR TO ALIGN RAMPS AND TRUNCATED DOMES.

10. TRUNCATED DOMES ARE TO BE StrongGo OR PREVIOUSLY APPROVED EQUAL AND TERRA COTTA IN COLOR.

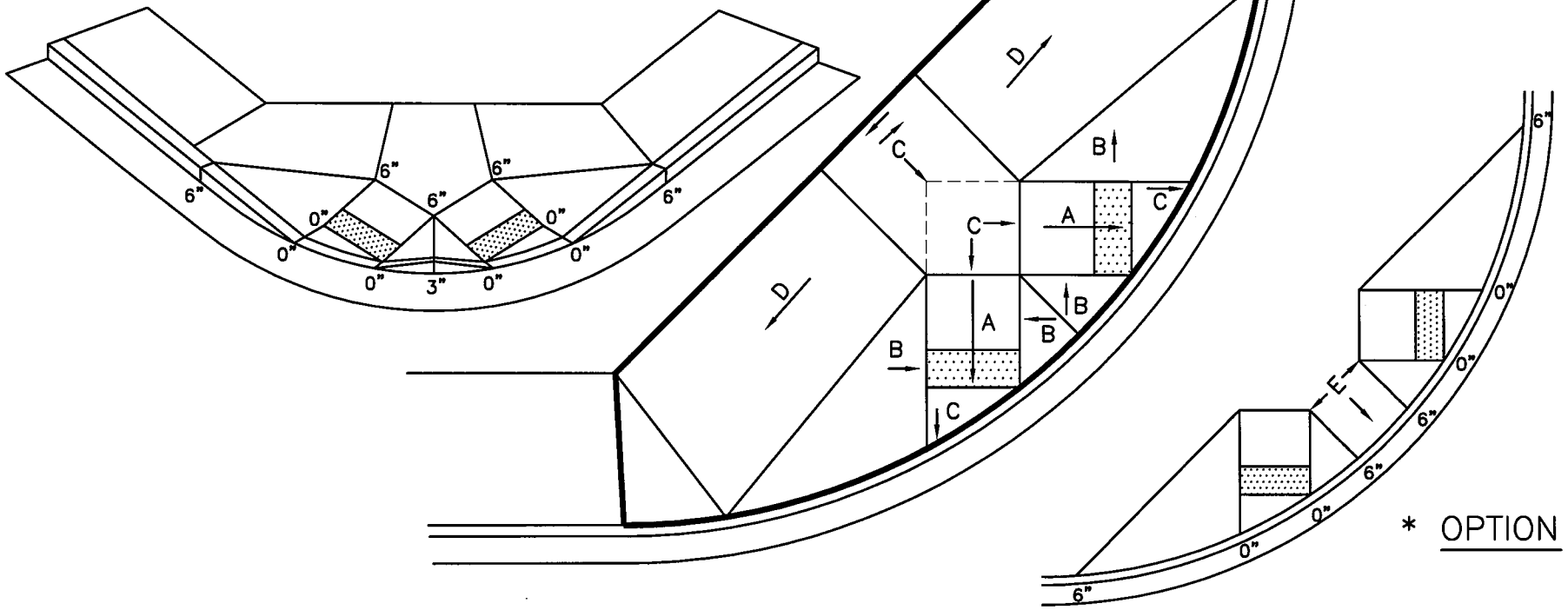
11. TRAFFIC SIGNAL POLE FOUNDATIONS SHOULD BE FLUSH WITH SIDEWALK/RAMP LANDINGS WHEN POSSIBLE.

CITY OF PEORIA
STANDARD DETAIL PE-241-2
STANDARD CURB RAMP (SLOPES)

APPROVALS:

CITY ENGINEER — DATE 5/24/13

ELEMENT	RUNNING SLOPE		CROSS SLOPE	
	PREF	MAX	PREF	MAX
A	–	8.33%	1.5%	2%
B	–	8.33%	8.33%	10%
C	1.5%	2%	1.5%	2%
D	1.5%	5%	1.5%	2%



* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE

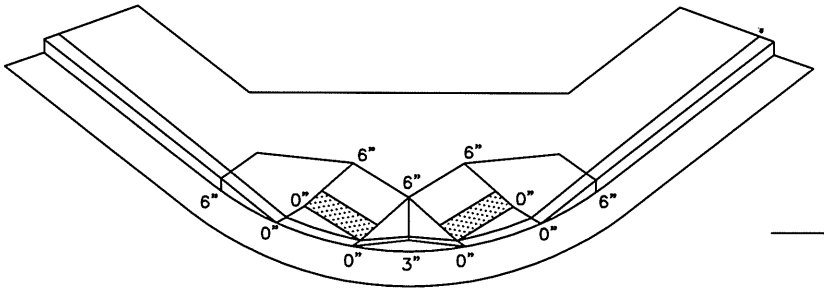
CITY OF PEORIA
STANDARD DETAIL PE–241–3
STANDARD DUAL CURB RAMP (DIMENSIONS)

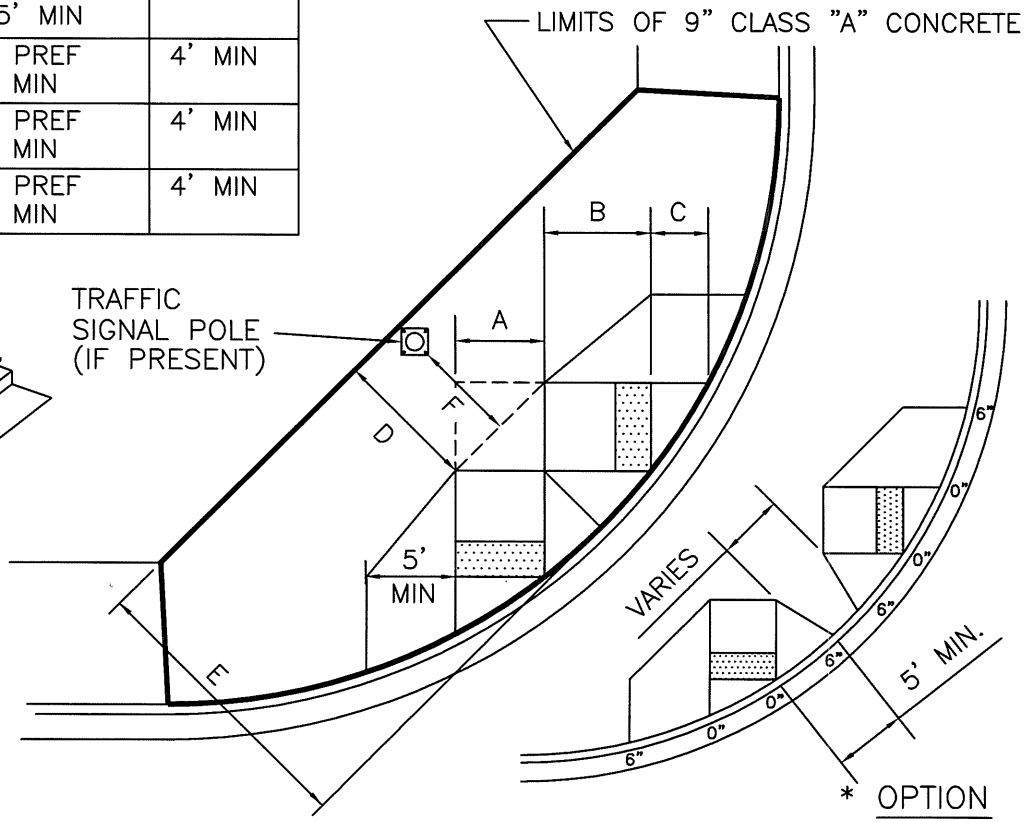
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PW–UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE						
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)	E (ft) BC–BW (APPROX)	F (ft)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 4' MIN	13.5' PREF 11.5' MIN	4' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN	14' PREF 12' MIN	4' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN	4' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN	4' MIN





NOTES:
1. Refer to PE–241–1 for Construction Notes.
2. Refer to PE–241–2 for slope requirements.

* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE

3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-241-4
STANDARD DUAL CURB RAMP (DIMENSIONS)

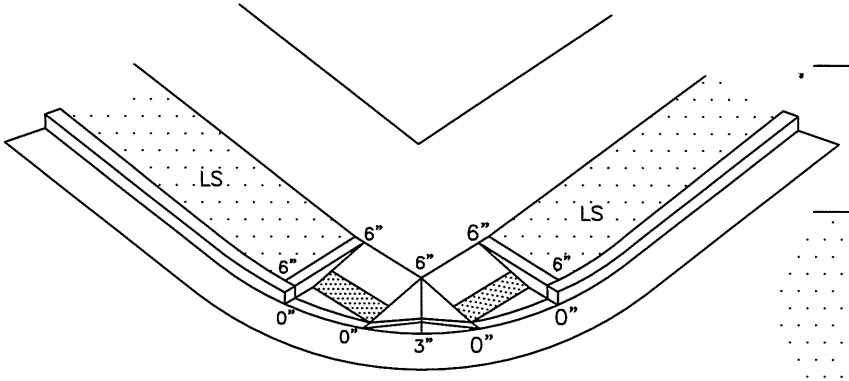
APPROVALS:

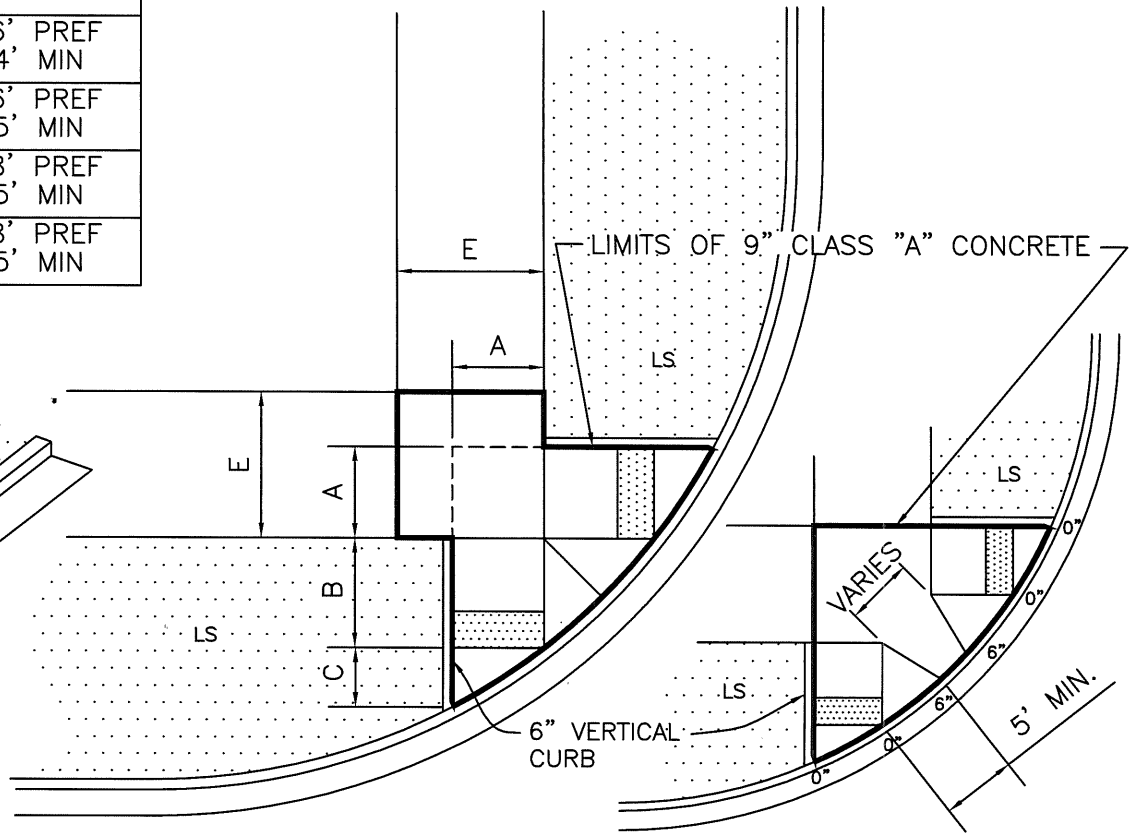
ENGINEERING DIRECTOR — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE				
Radius(FC)	A(ft)	B(ft)	C(ft)	E(ft)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 4' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN

LS = LANDSCAPING





NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.

* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE.

* OPTION

3/1/2016

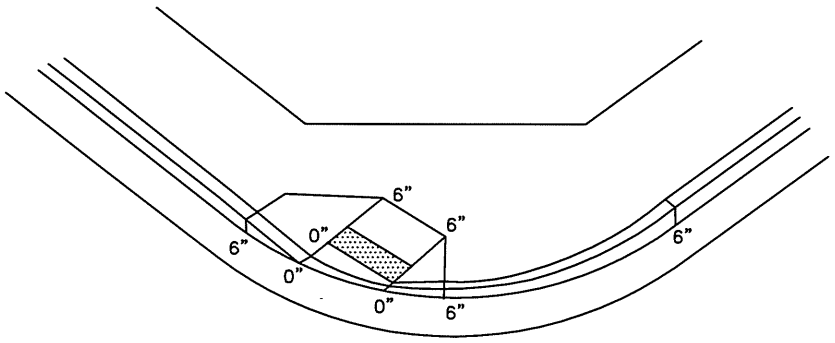
CITY OF PEORIA
STANDARD DETAIL PE-241-5A
STANDARD SINGLE CURB RAMP (DIMENSIONS)

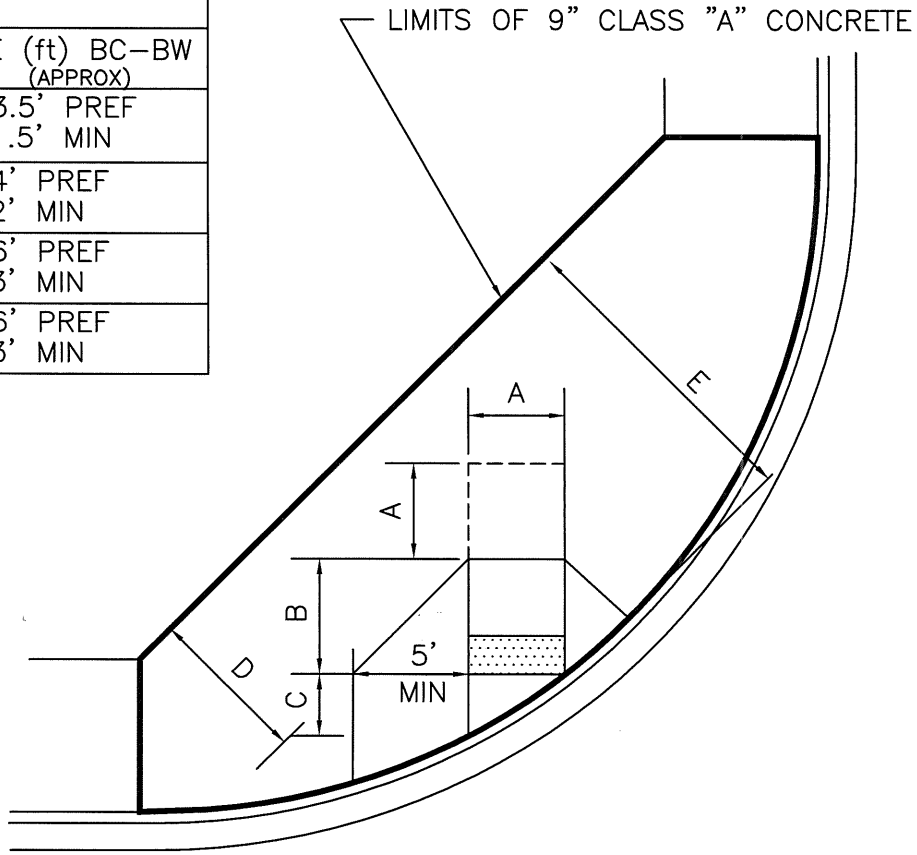
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE					
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)	E (ft) BC-BW (APPROX)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 4' MIN	13.5' PREF 11.5' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN	14' PREF 12' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN





NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.

3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-241-5B
STANDARD SINGLE CURB RAMP (DIMENSIONS)

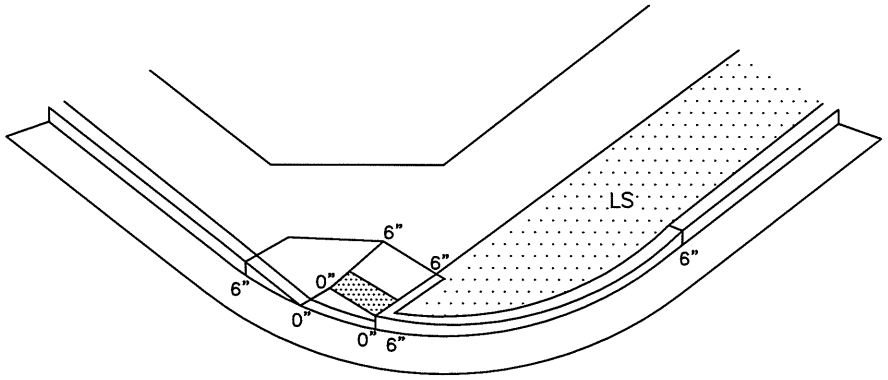
APPROVALS:

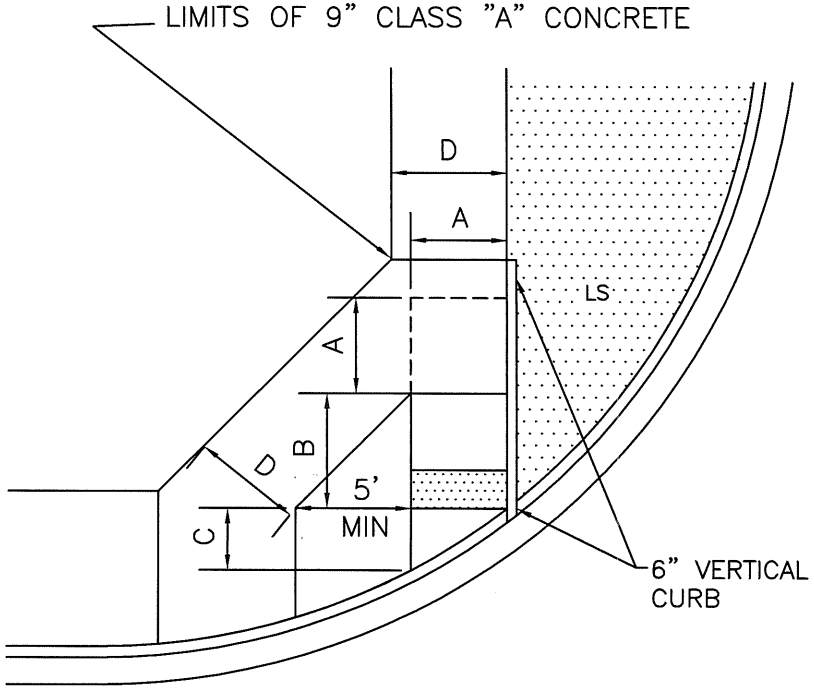
ENGINEERING DIRECTOR — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE				
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 4' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN

NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.





3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-241-5C
STANDARD SINGLE CURB RAMP (DIMENSIONS)

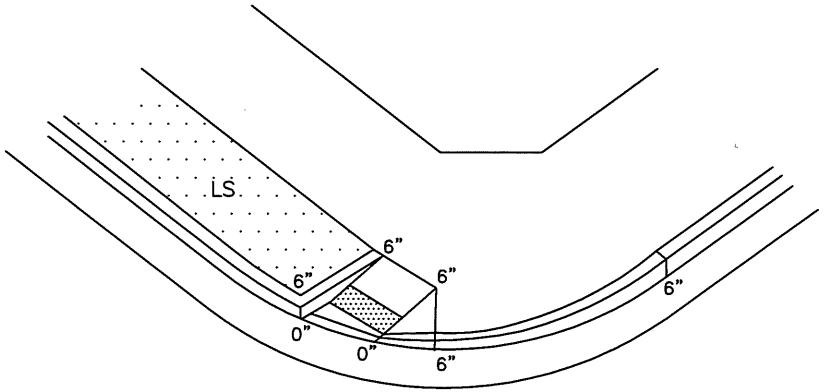
APPROVALS:

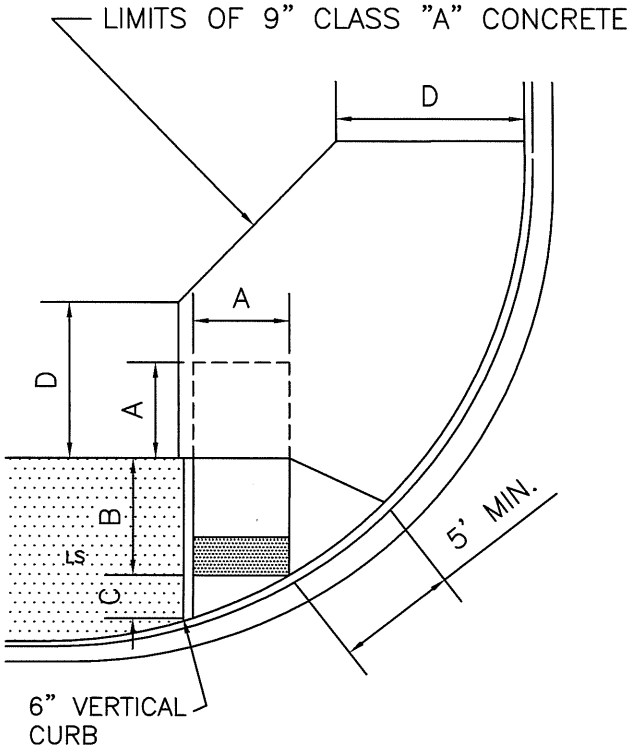
ENGINEERING DIRECTOR — DATE: 3/7/2016

PW-UTILITIES DIRECTOR — DATE: 3/7/16

DIMENSION TABLE				
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN

NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.





3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-241-6
STANDARD SINGLE CURB RAMP (DIMENSIONS)

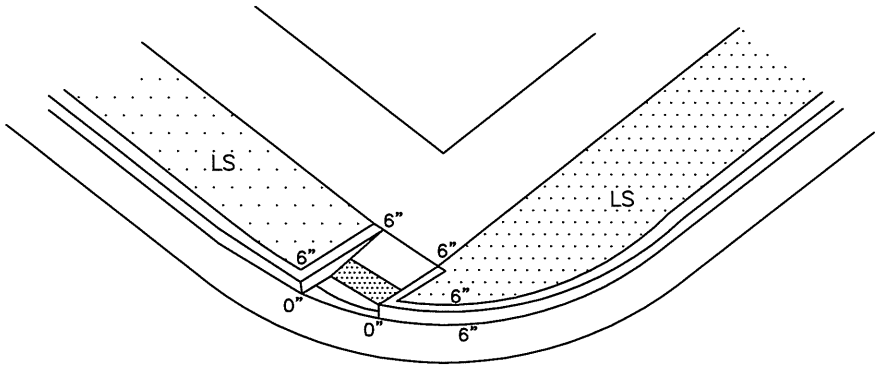
APPROVALS:

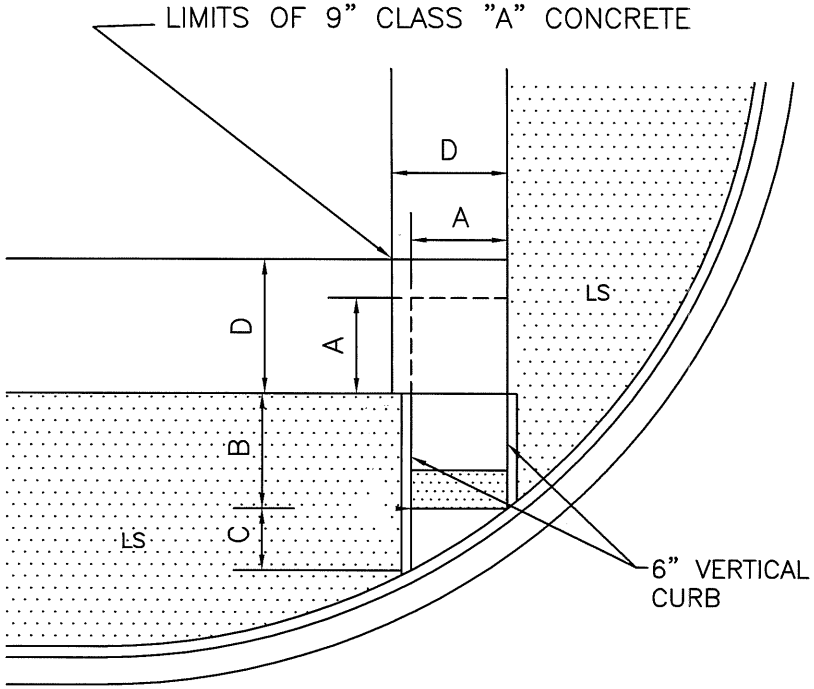
ENGINEERING DIRECTOR — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE				
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN

NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.





3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-241-7
STANDARD SINGLE CURB RAMP (DIMENSIONS)

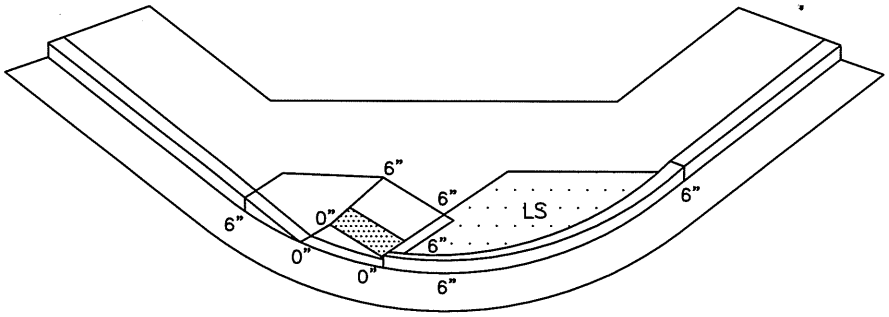
APPROVALS:

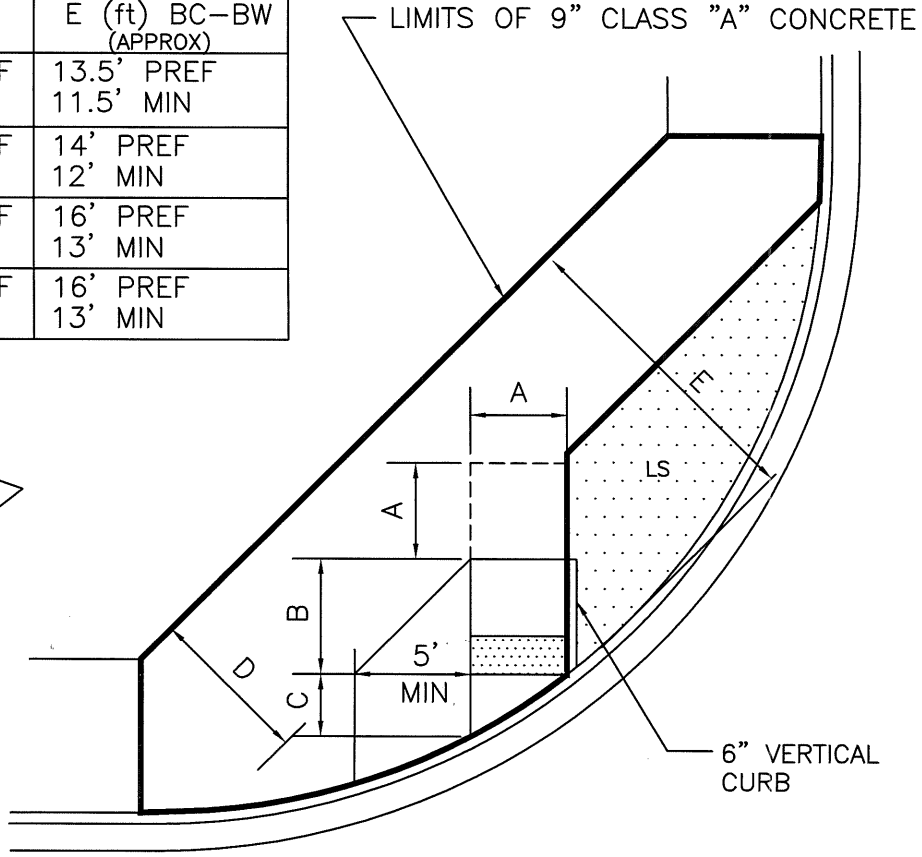
ENGINEERING DIRECTOR — DATE 3/1/2016

PW-UTILITIES DIRECTOR — DATE 3/1/16

DIMENSION TABLE					
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)	E (ft) BC-BW (APPROX)
20	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 4' MIN	13.5' PREF 11.5' MIN
25	5' PREF 4' MIN	6' MIN	5' MAX	6' PREF 5' MIN	14' PREF 12' MIN
30	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN
35	5' PREF 4' MIN	6' MIN	5' MAX	8' PREF 5' MIN	16' PREF 13' MIN

LS = LANDSCAPING





NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-2 for slope requirements.

3/1/2016

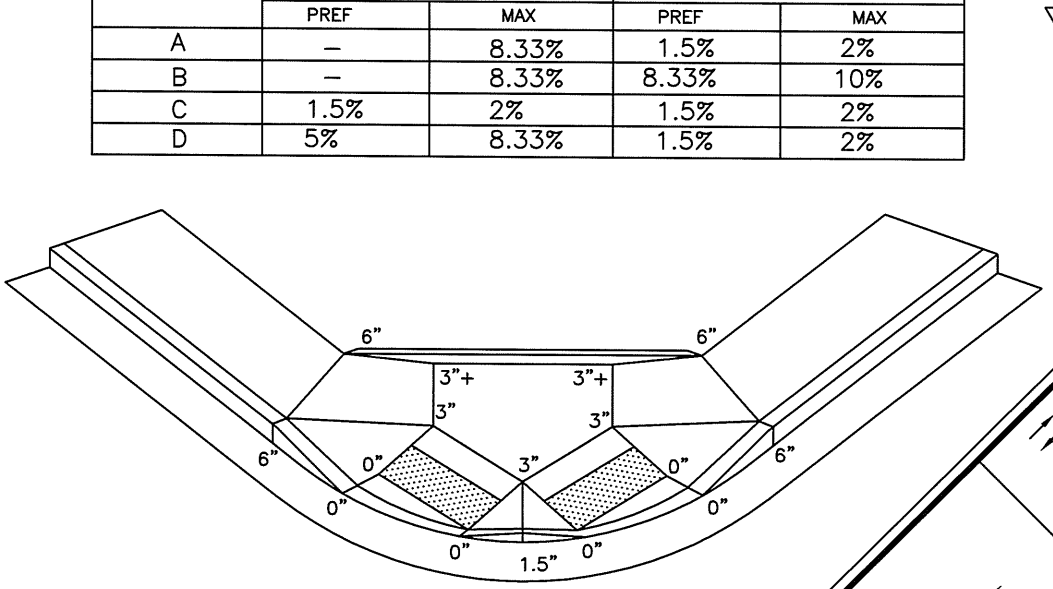
CITY OF PEORIA
STANDARD DETAIL PE-241-8
COMPACT RAMP (SLOPES)

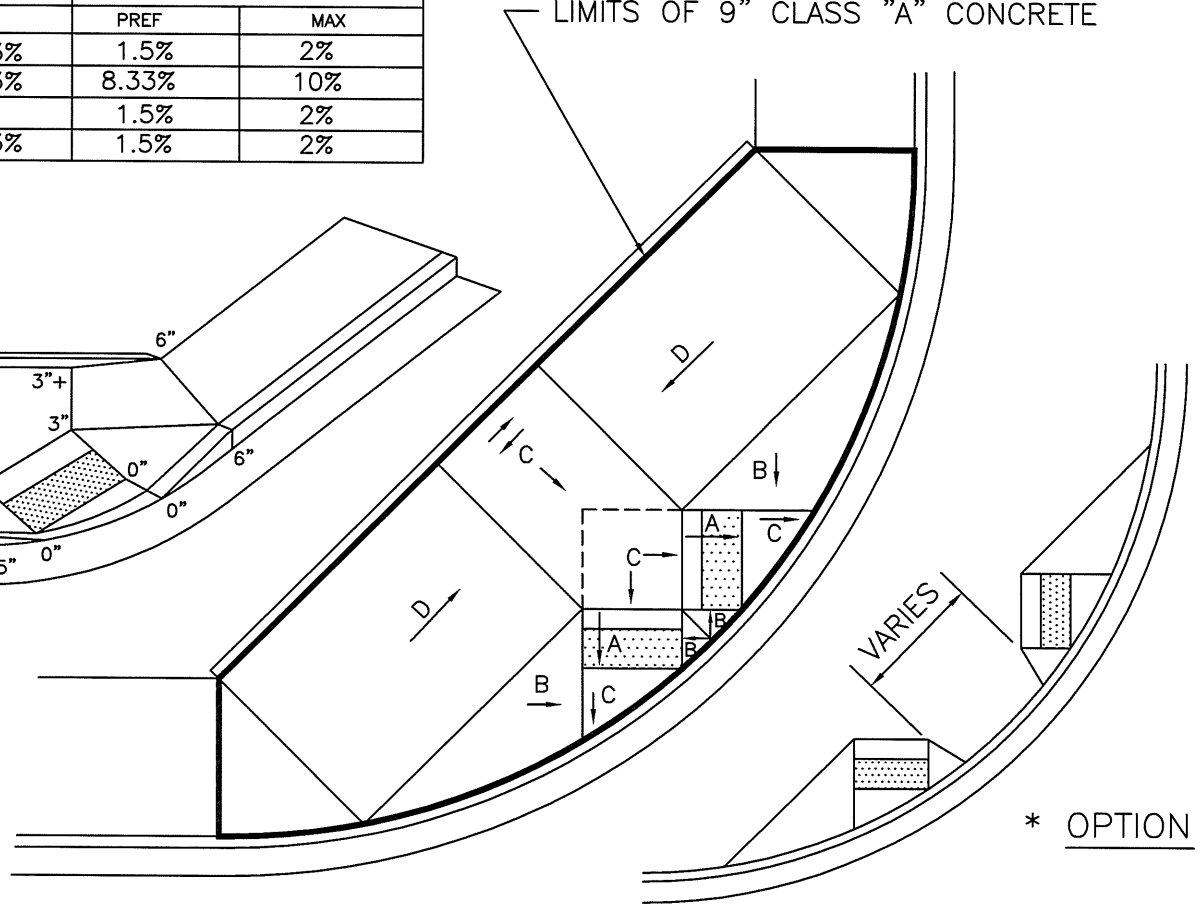
APPROVALS:

ENGINEERING DIRECTOR — 1/14/15 DATE

PW-UTILITIES DIRECTOR — 01-15-2015 DATE

ELEMENT	RUNNING SLOPE		CROSS SLOPE	
	PREF	MAX	PREF	MAX
A	–	8.33%	1.5%	2%
B	–	8.33%	8.33%	10%
C	1.5%	2%	1.5%	2%
D	5%	8.33%	1.5%	2%





* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE

1/8/2015

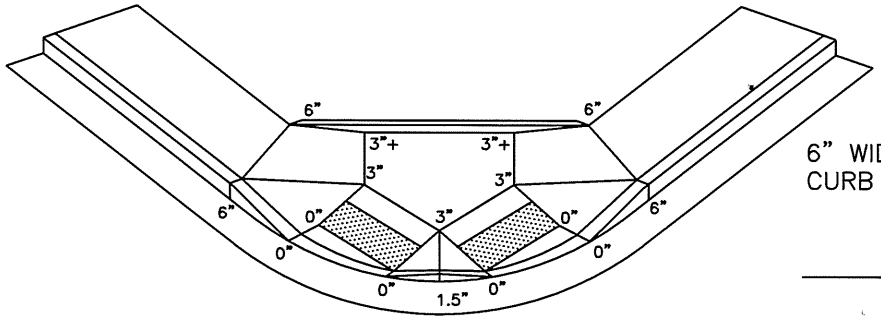
CITY OF PEORIA
STANDARD DETAIL PE–241–9
COMPACT DUAL CURB RAMP (DIMENSIONS)

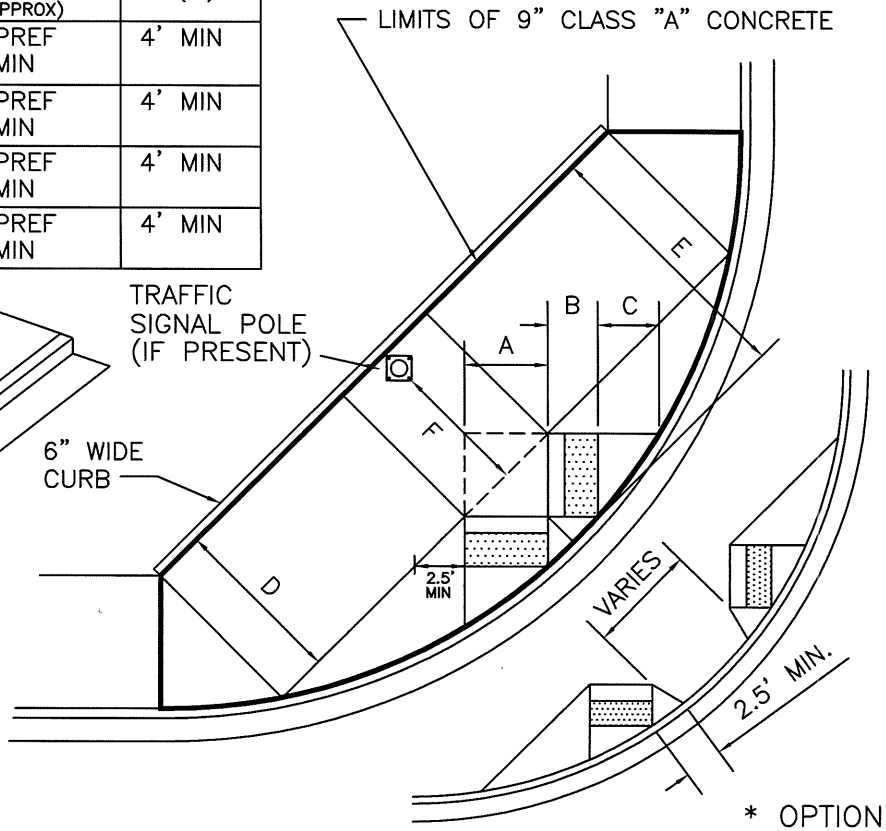
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PW–UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE						
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)	E (ft) BC–BW (APPROX)	F (ft)
20	5' PREF 4' MIN	3' MIN	5' MAX	6' PREF 4' MIN	12' PREF 10' MIN	4' MIN
25	5' PREF 4' MIN	3' MIN	5' MAX	6' PREF 5' MIN	12' PREF 11' MIN	4' MIN
30	5' PREF 4' MIN	3' MIN	5' MAX	8' PREF 5' MIN	14' PREF 11' MIN	4' MIN
35	5' PREF 4' MIN	3' MIN	5' MAX	8' PREF 5' MIN	14' PREF 11' MIN	4' MIN





NOTES:
1. Refer to PE–241–1 for Construction Notes.
2. Refer to PE–241–8 for slope requirements.

* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE

3/1/2016

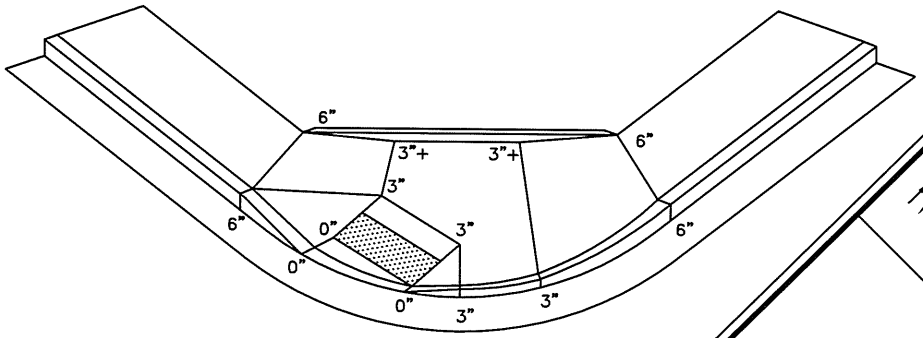
CITY OF PEORIA
STANDARD DETAIL PE-241-10
COMPACT SINGLE CURB RAMP (SLOPES)

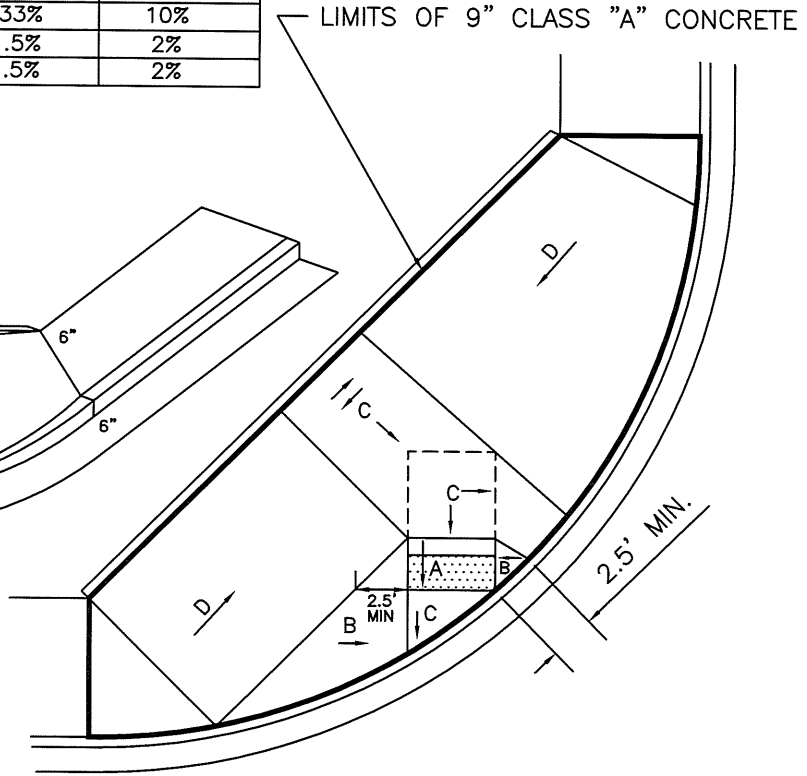
APPROVALS:

7/14/15
ENGINEERING DIRECTOR DATE

01-15-2015
PW-UTILITIES DIRECTOR DATE

ELEMENT	RUNNING SLOPE		CROSS SLOPE	
	PREF	MAX	PREF	MAX
A	–	8.33%	1.5%	2%
B	–	8.33%	8.33%	10%
C	1.5%	2%	1.5%	2%
D	5%	8.33%	1.5%	2%





1/8/2015

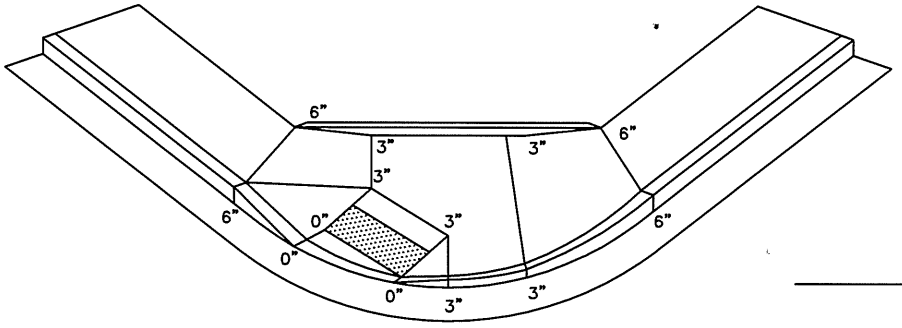
CITY OF PEORIA
STANDARD DETAIL PE-241-11
COMPACT SINGLE CURB RAMP (DIMENSIONS)

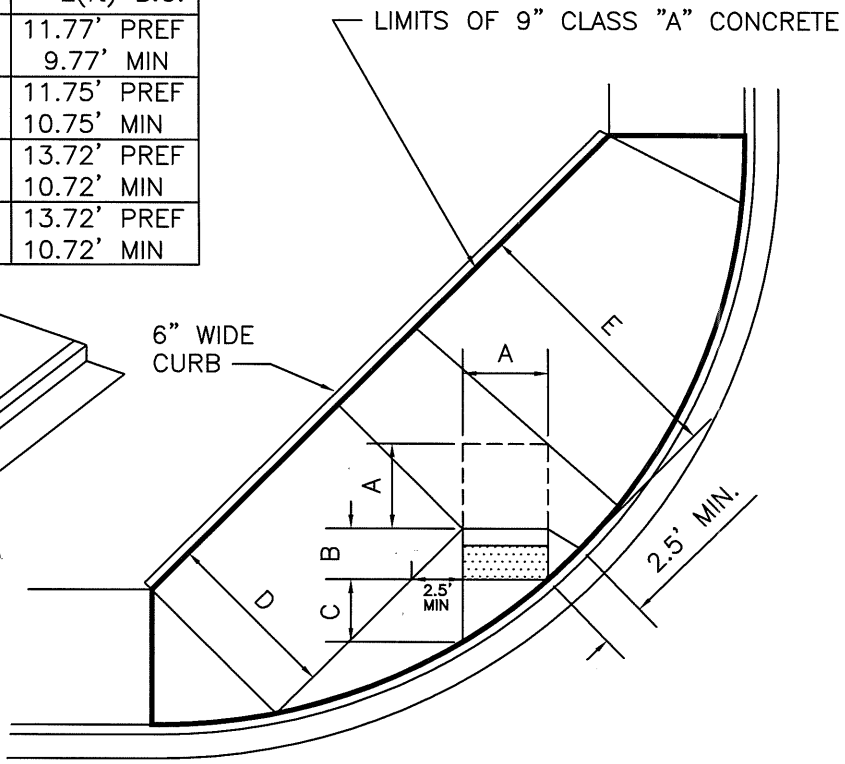
APPROVALS:

3/7/2016
ENGINEERING DIRECTOR DATE

3/7/16
PW-UTILITIES DIRECTOR DATE

DIMENSION TABLE					
Radius(FC)	A(ft)	B(ft)	C(ft)	D(ft)	E(ft) B.C.
20	4'	3' MIN	0' MIN 5' MAX	6' PREF 4' MIN	11.77' PREF 9.77' MIN
25	5'	3' MIN	0' MIN 5' MAX	6' PREF 5' MIN	11.75' PREF 10.75' MIN
30	5'	3' MIN	0' MIN 5' MAX	8' PREF 5' MIN	13.72' PREF 10.72' MIN
35	5'	3' MIN	0' MIN 5' MAX	8' PREF 5' MIN	13.72' PREF 10.72' MIN





NOTES:
1. Refer to PE-241-1 for Construction Notes.
2. Refer to PE-241-10 for slope requirements.

3/1/2016

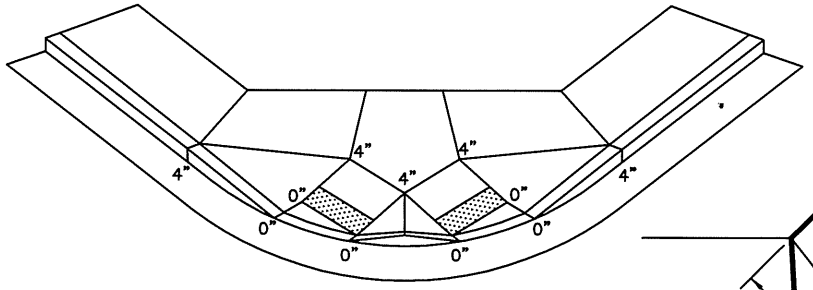
CITY OF PEORIA
STANDARD DETAIL PE–241–12
COMPACT DUAL CURB RAMP (DIMENSIONS)
FOR STREETS WITH 4" CURB

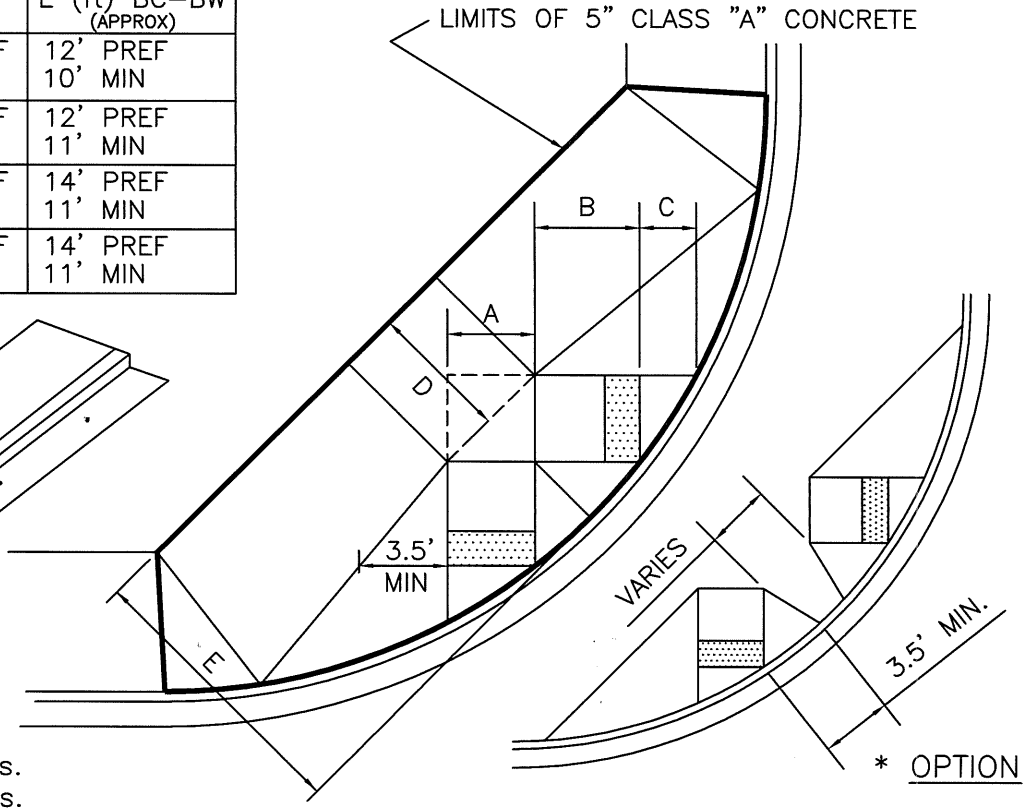
APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PW–UTILITIES DIRECTOR — DATE 3/7/16

DIMENSION TABLE					
Radius (FC)	A (ft)	B (ft)	C (ft)	D (ft)	E (ft) BC–BW (APPROX)
20	5' PREF 4' MIN	4' MIN	5' MAX	6' PREF 4' MIN	12' PREF 10' MIN
25	5' PREF 4' MIN	4' MIN	5' MAX	6' PREF 5' MIN	12' PREF 11' MIN
30	5' PREF 4' MIN	4' MIN	5' MAX	8' PREF 5' MIN	14' PREF 11' MIN
35	5' PREF 4' MIN	4' MIN	5' MAX	8' PREF 5' MIN	14' PREF 11' MIN





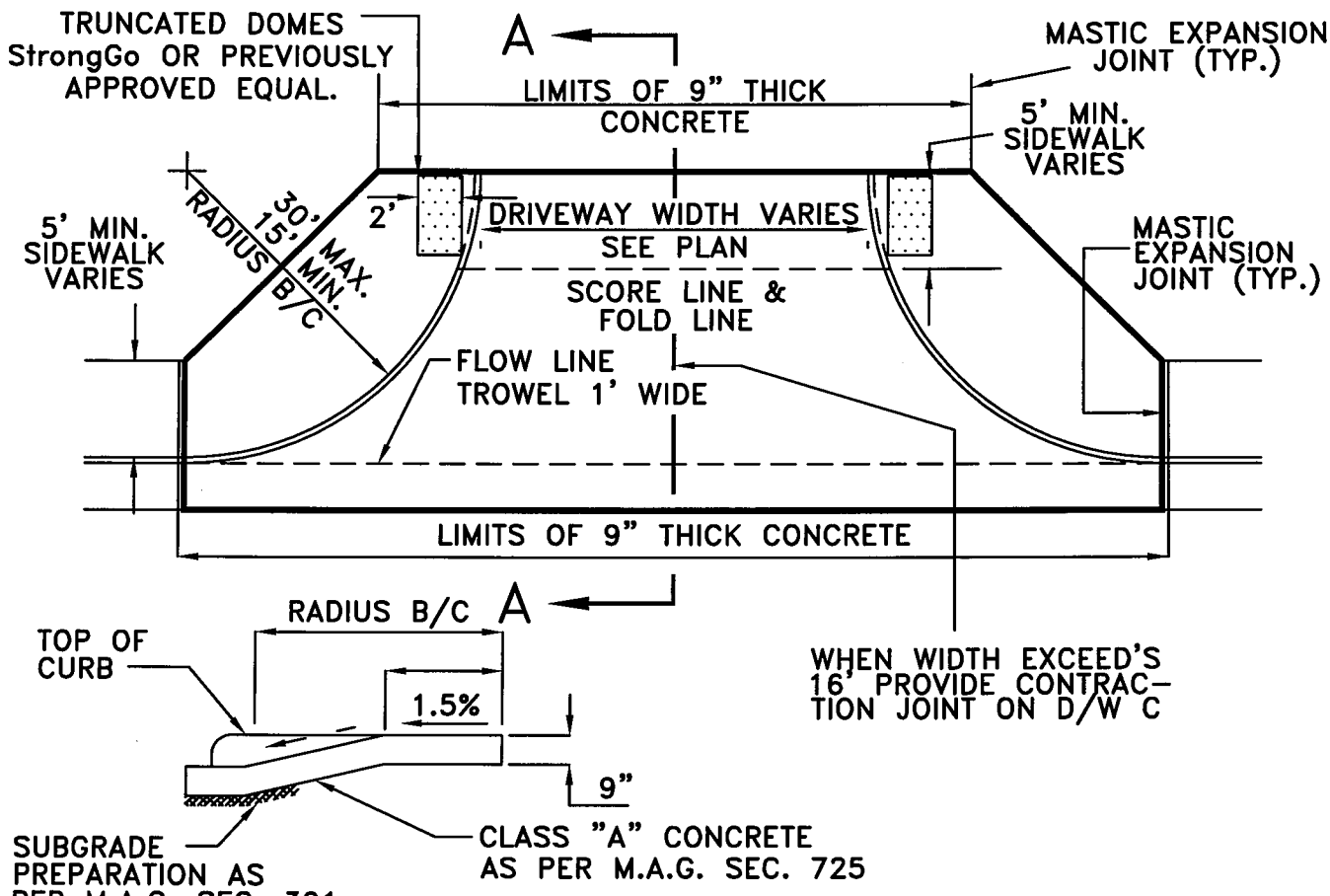
NOTES:
1. Refer to PE–241–1 for Construction Notes.
2. Refer to PE–241–2 for slope requirements.

* POSITION OF EACH RAMP MAY SHIFT TO ALIGN WITH RAMP ON OPPOSITE SIDE

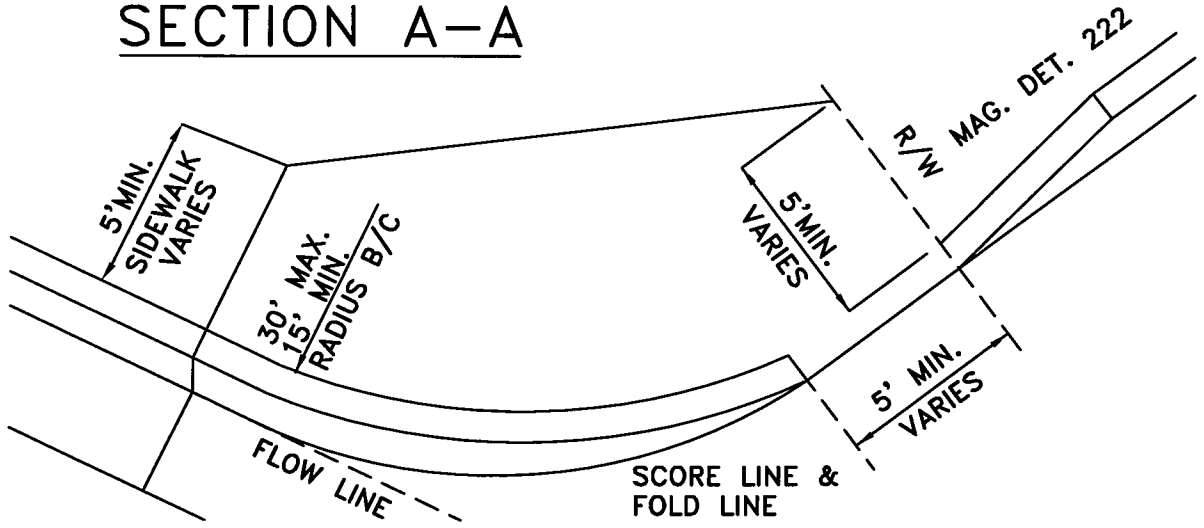
3/1/2016

CITY OF PEORIA
STANDARD DETAIL PE-251-1
RETURN TYPE DRIVEWAYS WITH ATTACHED SIDEWALK

APPROVALS: 5/21/13
CITY ENGINEER DATE



SECTION A-A



NOTES:
EXPANSION JOINT FILLER SHALL BE 1/2 INCH BITUMINUS TYPE PRE-FORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751
TRUNCATED DOMES MAY BE DELETED FOR LOW VOLUME, RESIDENTIAL, OR OTHER DRIVEWAY LOCATIONS, SUBJECT TO APPROVAL BY CITY TRAFFIC ENGINEER

02/11/2013

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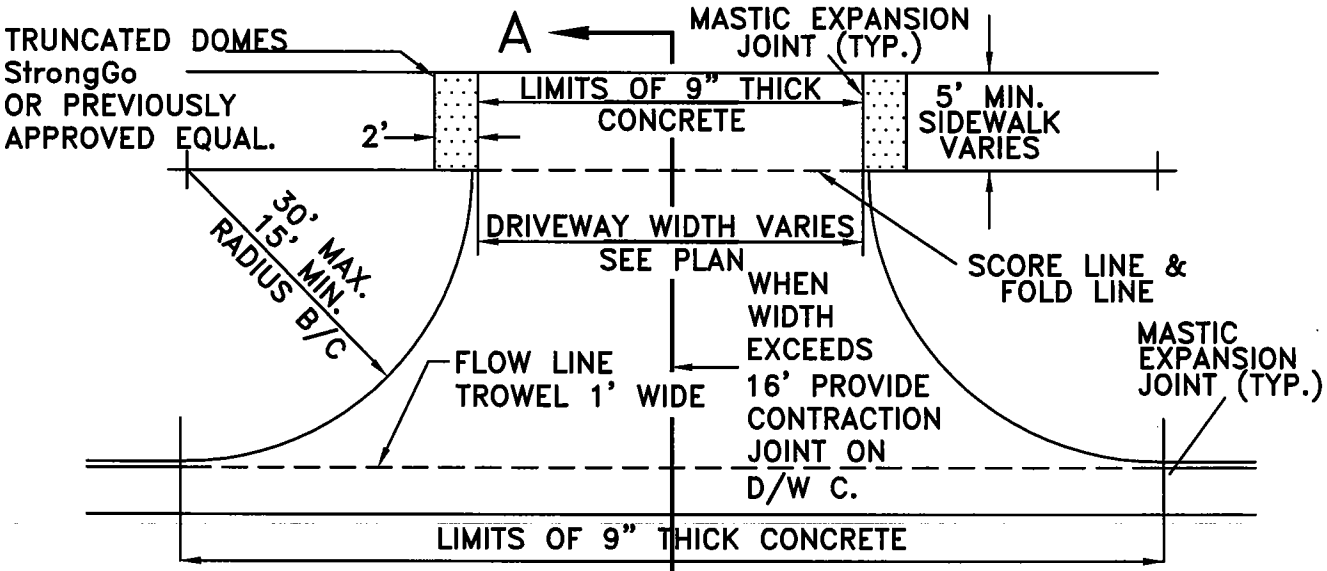
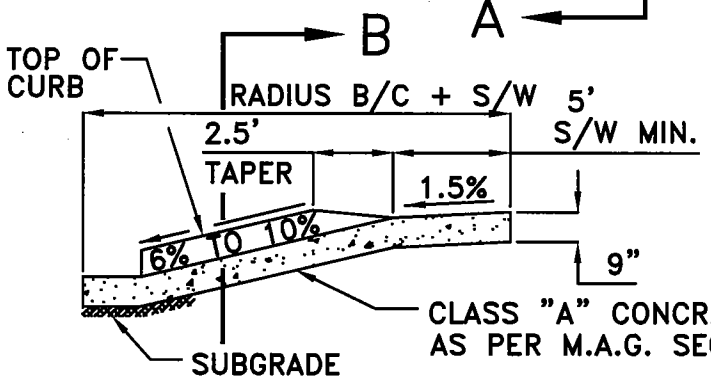
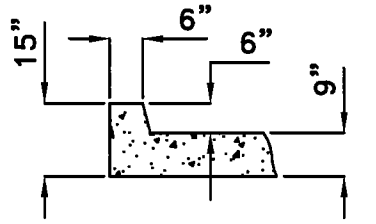
CITY OF PEORIA
STANDARD DETAIL PE-251-2
RETURN TYPE DRIVEWAYS WITH DETACHED SIDEWALK

APPROVALS: _____ 3/27/12
CITY ENGINEER DATE

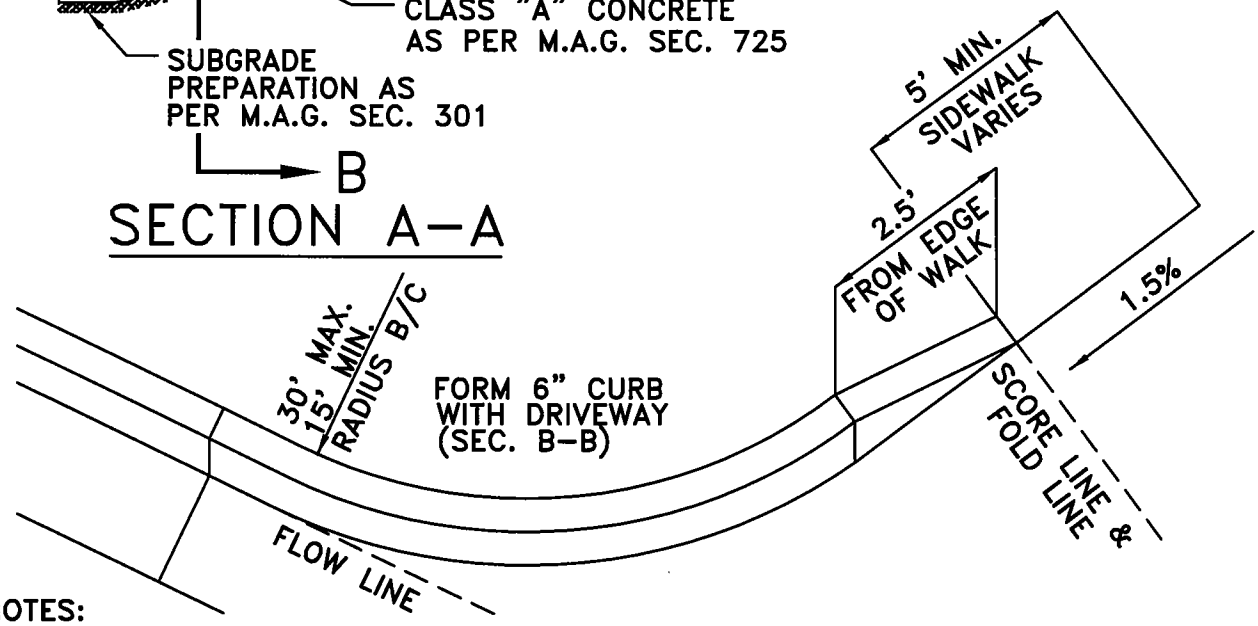




SECTION A-A



SECTION B-B



NOTES:
EXPANSION JOINT FILLER SHALL BE 1/2 INCH BITUMINUS TYPE PRE-FORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751
TRUNCATED DOMES MAY BE DELETED FOR LOW VOLUME, RESIDENTIAL, OR OTHER DRIVEWAY LOCATIONS, SUBJECT TO APPROVAL BY CITY TRAFFIC ENGINEER

02/23/2012

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CITY OF PEORIA
STANDARD DETAIL PE-251-3
DRIVEWAY CRITERIA

APPROVALS: _____ 5-21-12
CITY ENGINEER DATE

	RESIDENTIAL		COMMERCIAL INDUSTRIAL	
	SINGLE FAMILY	MULTI-FAMILY	SINGLE BUSINESS	MULTI-BUSINESS
STD. CONSTRUCTION DETAIL	CITY OF PHOENIX *P1255-1	PE-251-1 OR PE-251-2	PE-251-1 OR PE-251-2	PE-251-1 OR PE-251-2
STANDARD WIDTH (TWO WAY)	16'	24'	30'	30'
MIN. WIDTH (TWO WAY)	16'	24'	24'	24'
MAX. WIDTH (TWO WAY)	24'	40' (2)	30'	40' (2)
MIN. SPACE BETWEEN DRIVES (INSIDE EDGE TO INSIDE EDGE)	10'	(4)	(4)	(4)
MIN. DIST. FROM INTERSECTION (NEAREST P.C. TO INSIDE EDGE)	25'	(5)	(5)	(5)
MAX. NO. OF DRIVES	1	2 PER FIRST 19 UNITS 3 PER 1200' FRONTAGE 4 PER 2600' FRONTAGE	2 PER STREET	1 PER 225' FRONTAGE 2 PER 800' FRONTAGE 3 PER 1200' FRONTAGE 4 PER 2600' FRONTAGE

* = MODIFIED P1255-1 WITH 4' WIDE ADA PEDESTRIAN PASS

NOTES:

1. DETAIL PE-251-1 OR PE-251-2 MAY BE USED ON ARTERIAL STREETS.
2. (a) HIGH VOLUME DRIVEWAY WITH TWO OUTBOUND APPROACH LANES.
   (b) REQUIRES DECELERATION LANE UNLESS OTHERWISE APPROVED BY TRAFFIC ENGINEER.
   (c) BE INCREASED TO 46' WITH ADDITION OF RAISED MEDIAN.
3. ALL DRIVEWAY WINGS OR P.C.'S WILL BEGIN NO CLOSER THAN 5' FROM ANY PROPERTY LINE.
4. SEE TABLE 1 OF THE ACCESS MANAGEMENT GUIDELINES.
5. SEE TABLE 2 OF THE ACCESS MANAGEMENT GUIDELINES.

I:\GUIDE\DETAILS\CAD\PE-251-3

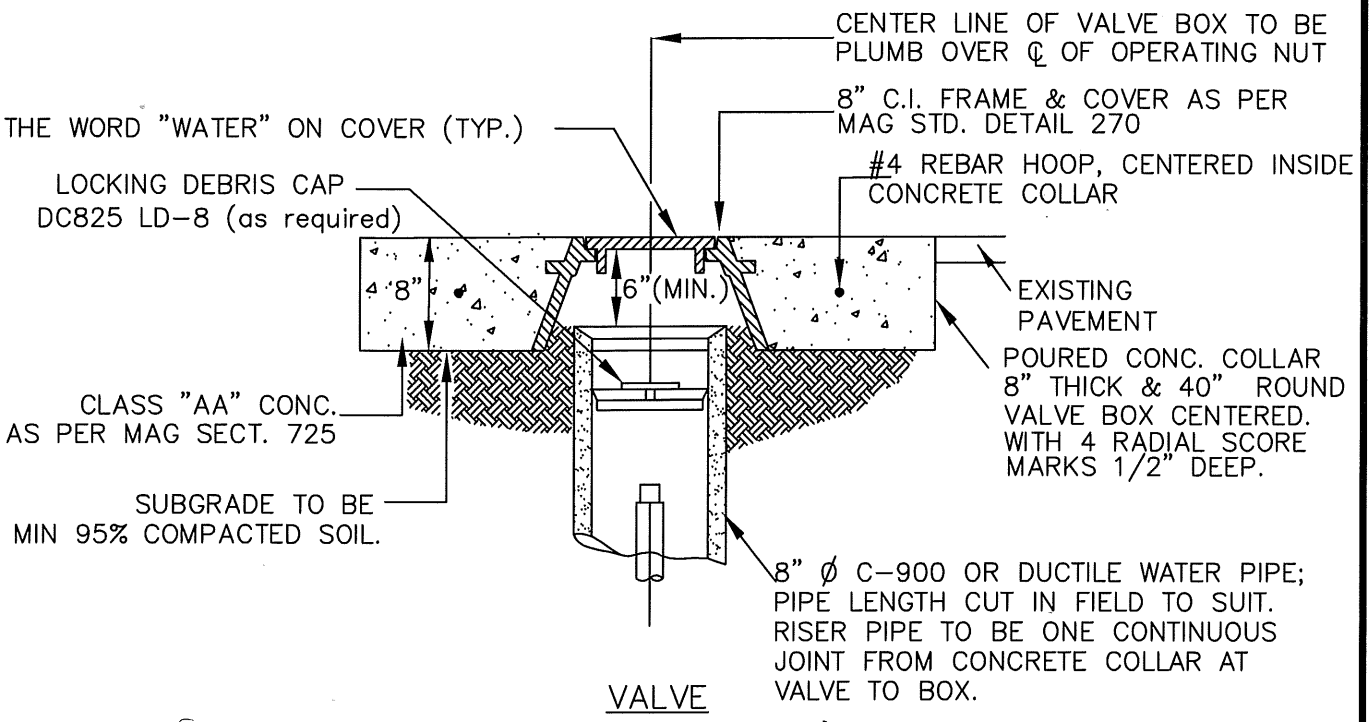
MAY 2012

CITY OF PEORIA
STANDARD DETAIL PE-270
WATER VALVE FRAME AND COVER

APPROVALS:

CITY ENGINEER — DATE 3/22/16

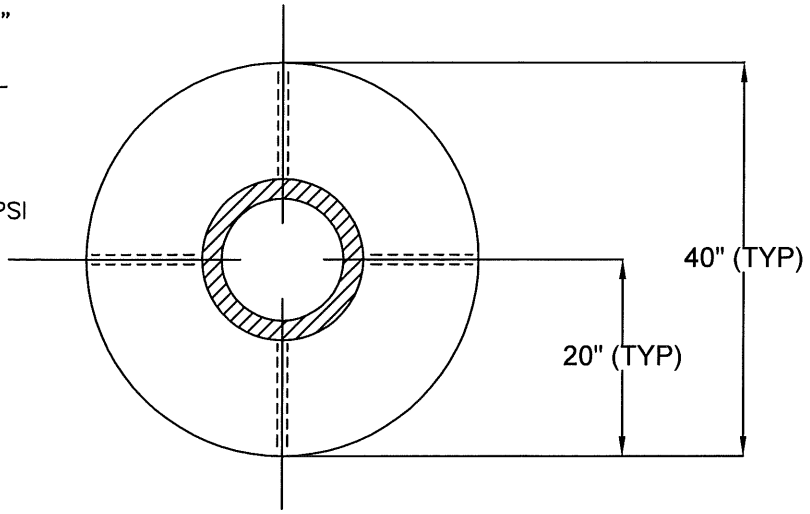
PUBLIC WORKS-UTILITIES DIRECTOR — DATE 3/22/16



VALVE

NOT TO SCALE

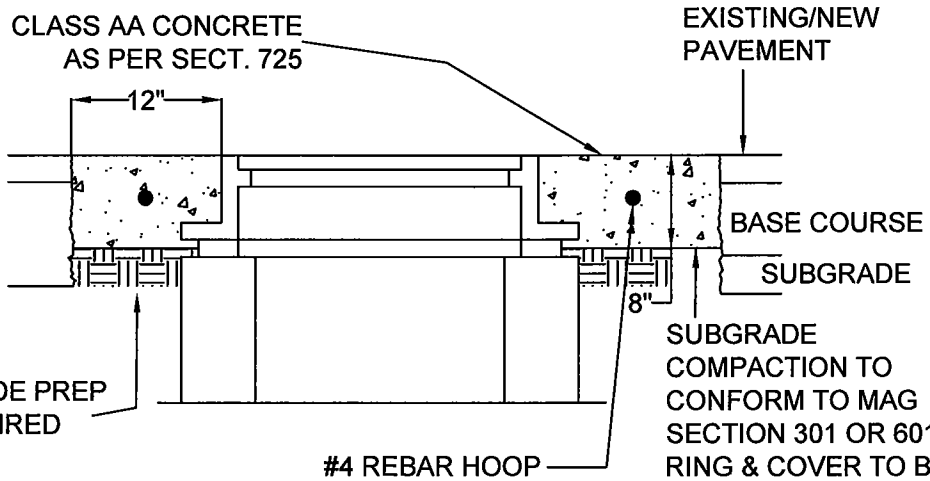
1) IN PAVED MAJOR ARTERIAL STREETS, CONCRETE COLLARS SHALL BE SCORED RADIALLY AT QUARTER-CIRCLE POINTS AND SCORES SHALL BE ¼" WIDE BY ½" DEEP. CONCRETE SURFACE SHALL BE ROUGH BROOM FINISHED. NO TRAFFIC SHALL BE ALLOWED ON COLLARS UNTIL CONCRETE REACHES MINIMUM 2500 PSI ON ALL STREETS.



TOP VIEW

CITY OF PEORIA
STANDARD DETAIL PE-271
SEWER MANHOLE ADJUSTMENTS

APPROVALS: _____ 4/14/09
CITY ENGINEER DATE

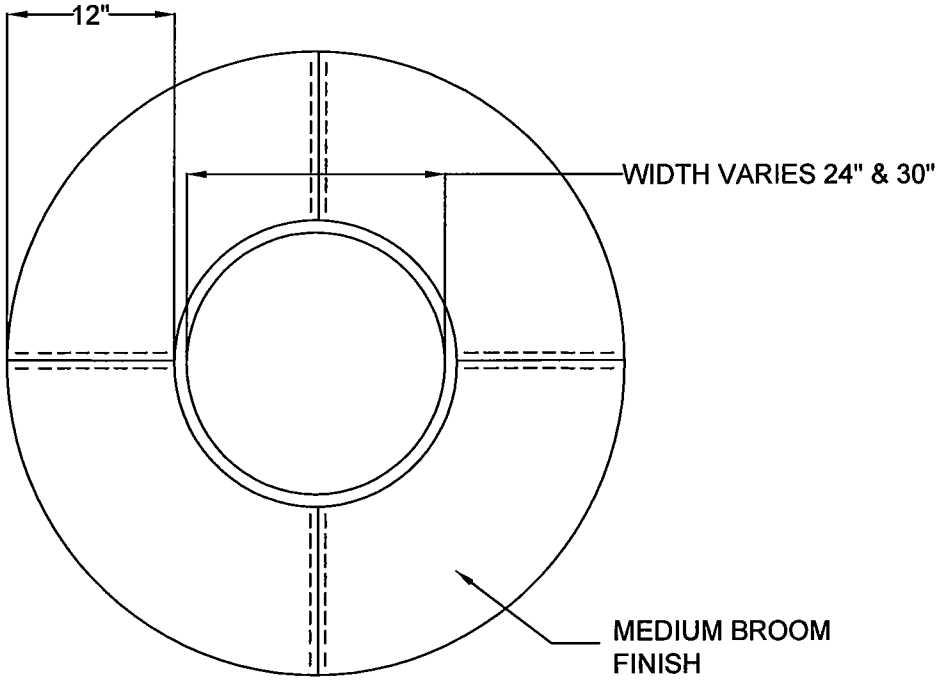


MANHOLE

1) IN PAVED MAJOR ARTERIAL STREETS, CONCRETE COLLARS SHALL BE SCORED RADIALLY AT QUARTER-CIRCLE POINTS AND SCORES SHALL BE ¼" WIDE BY ½" DEEP. CONCRETE SURFACE SHALL BE ROUGH BROOM FINISHED. NO TRAFFIC SHALL BE ALLOWED ON COLLARS UNTIL CONCRETE REACHES MINIMUM 2500 PSI ON ALL STREETS.

2) LETTERS ON COVER TO BE AS FOLLOWS: "SEWER", "WATER", OR "SURVEY" AS DIRECTED. TOTAL WIDTH OF WORD "SEWER" OR "WATER" 3-3/4". TOTAL WIDTH OF WORD "SURVEY" 4-1/2". LETTER SIZE ⅝" X ¾", RAISED 1/16" ABOVE LEVEL OF COVER. TYPE OF LETTERS TO BE SUBMITTED FOR APPROVAL. CASTING TO CONFORM TO SECT. 787.

3) COMPACTION TO CONFORM TO SECT. 301 OR 601.



TOP VIEW

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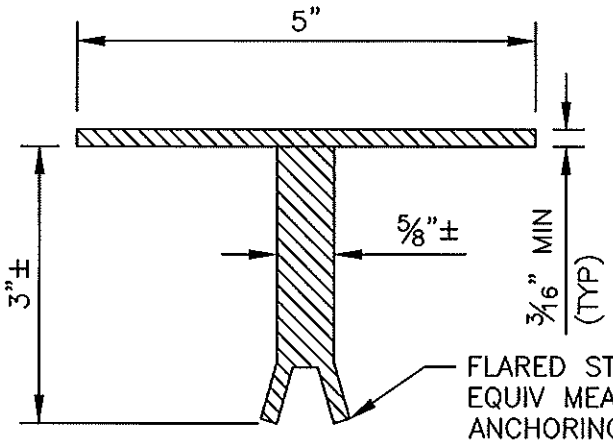
03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-280-1
BRIDGE AND CULVERT STRUCTURE IDENTIFICATION MARKERS

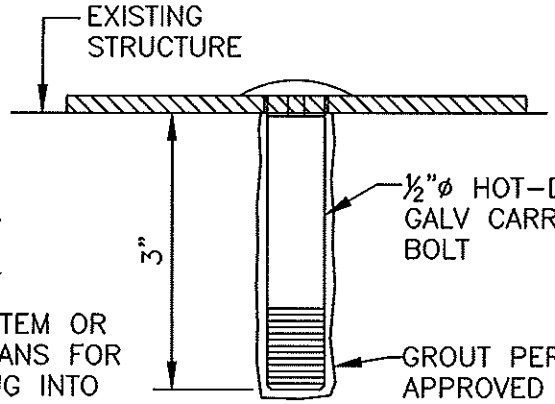
APPROVALS: _____ 2/6/14
CITY ENGINEER DATE



TYPE "A"

NEW CONSTRUCTION

ANCHOR STEM IN TO WET CONCRETE. STEMS SHALL BE INSULATED FROM AND 1" CLEAR OF REINFORCING STEEL.

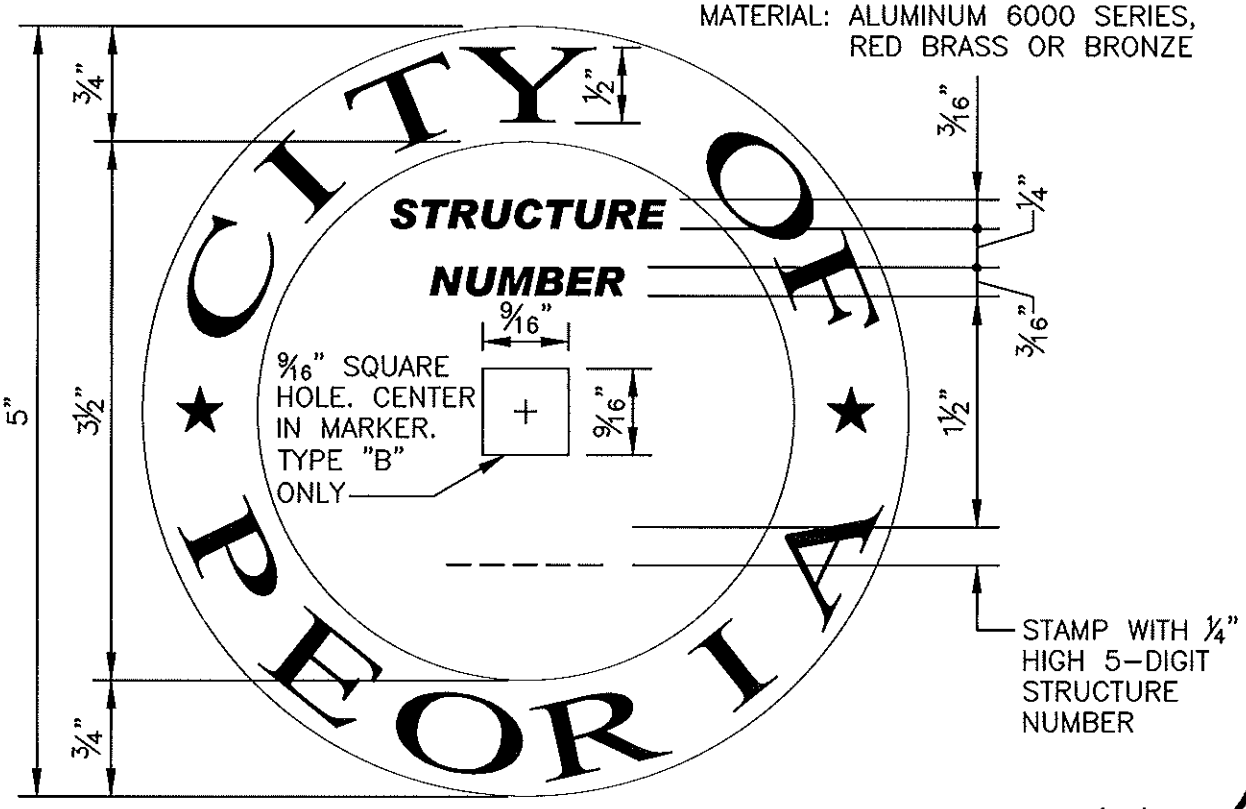


TYPE "B"

EXISTING STRUCTURES

SECURE MARKER WITH EPOXY GROUTED CARRIAGE BOLT (ROUND HEAD W/ SQ NECK)

MATERIAL: ALUMINUM 6000 SERIES, RED BRASS OR BRONZE



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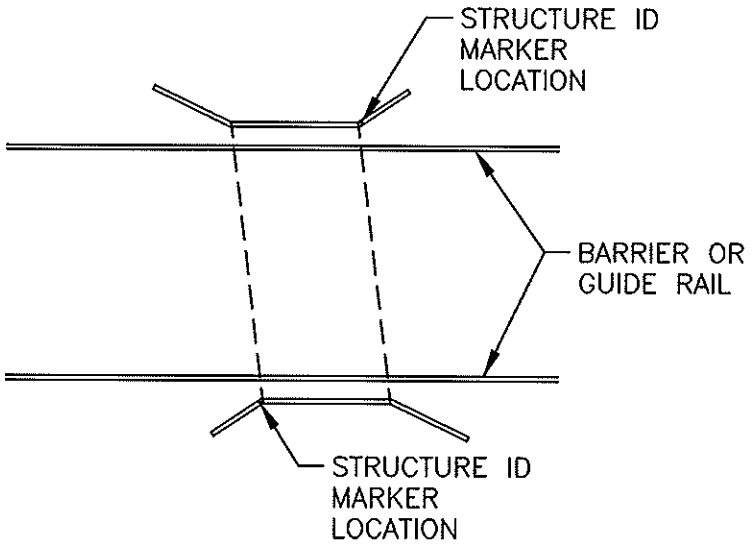
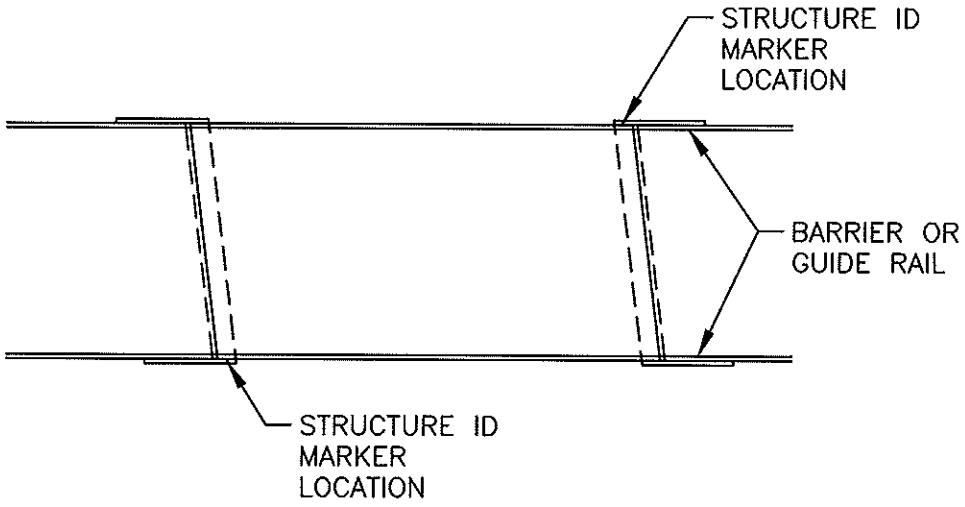
11/06/2013

CITY OF PEORIA
STANDARD DETAIL PE-280-2
BRIDGE AND CULVERT
STRUCTURE IDENTIFICATION MARKERS

APPROVALS: _____ 2/6/14
CITY ENGINEER DATE





LOCATE STRUCTURE ID MARKER ON THE TOP OF THE FIRST WINGWALL, RIGHT SIDE OF THE BRIDGE APPROACH LOOKING TOWARDS THE BRIDGE.

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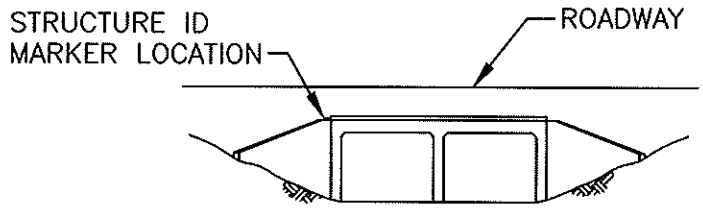
11/06/2013

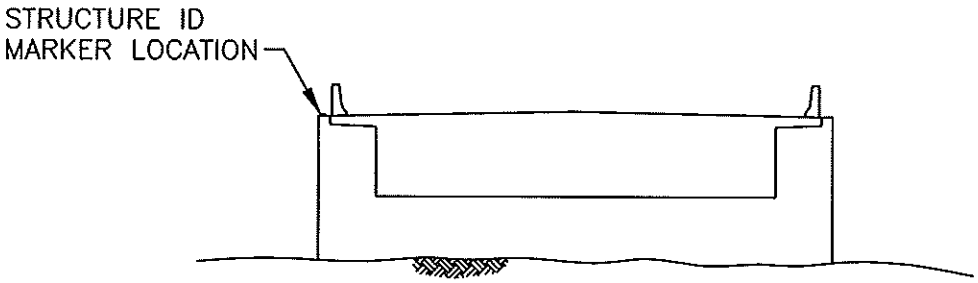
CITY OF PEORIA
STANDARD DETAIL PE-280-3
BRIDGE AND CULVERT
STRUCTURE IDENTIFICATION MARKERS

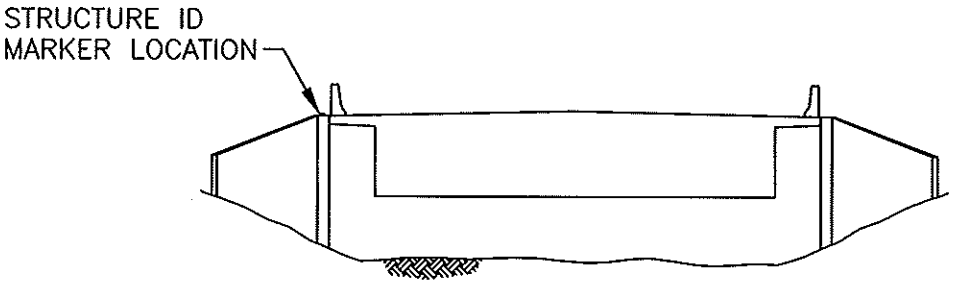
APPROVALS:

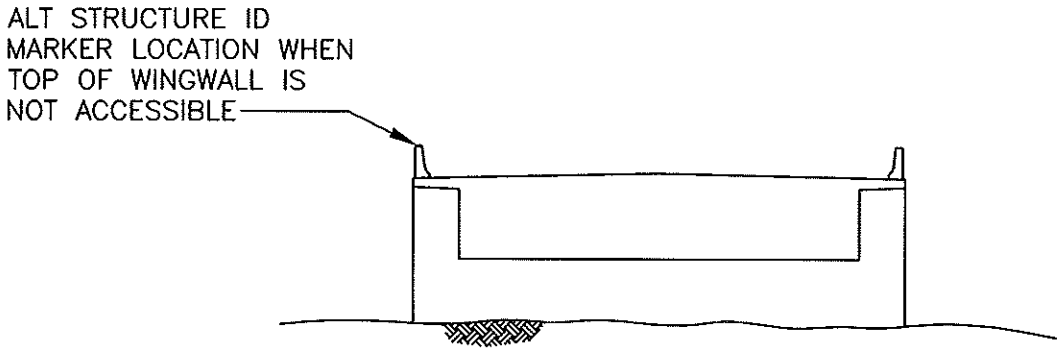
CITY ENGINEER — DATE 2/6/14



LOCATE STRUCTURE ID MARKER ON TOP OF WINGWALL,
LEFT SIDE OF CULVERT, FACING CULVERT OPENING







LOCATE STRUCTURE ID MARKER ON TOP OF WINGWALL,
LEFT SIDE OF ABUTMENT, FACING ABUTMENT

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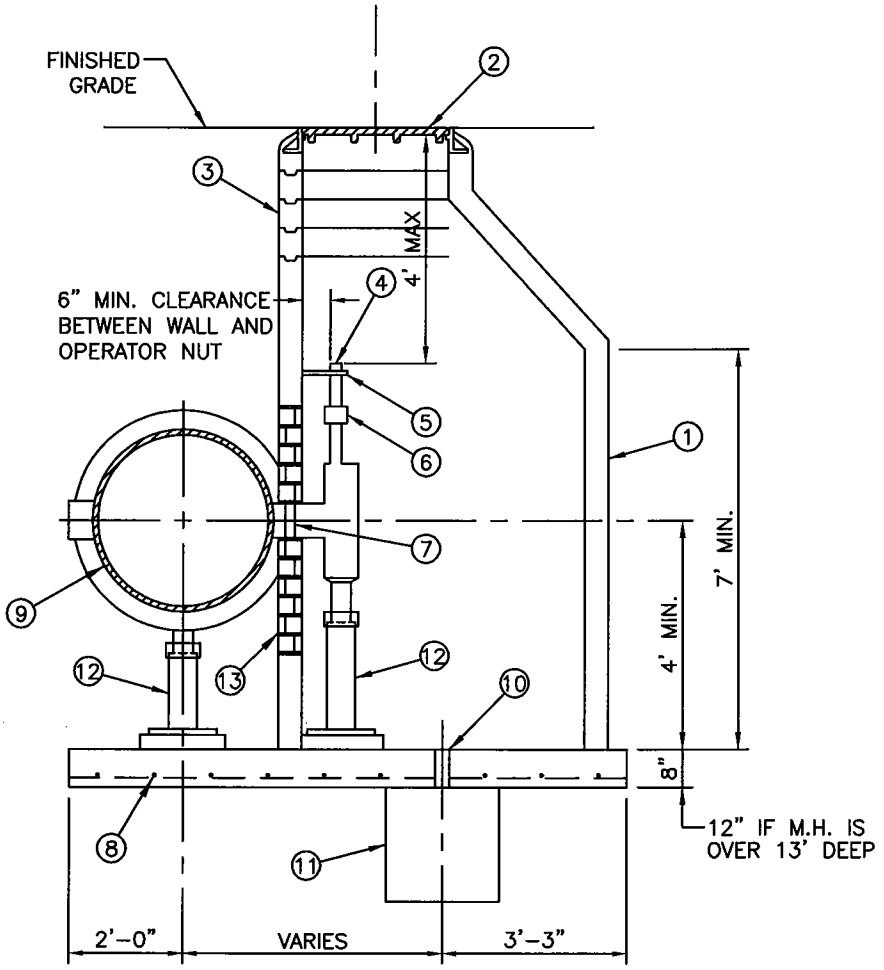
11/06/2013

CITY OF PEORIA
STANDARD DETAIL PE-346
BUTTERFLY VALVE OPERATOR MANHOLE

APPROVALS:

CITY ENGINEER — DATE 3/10/08

UTILITIES DIRECTOR — DATE 2/12/08



NOTES:

1. 60" I.D. MANHOLE SHAFT PER MAG STD. DET. 420, TYPE "A" TOP
2. 30" MANHOLE FRAME & COVER PER MAG STD. DET. 424
3. GROUTED ADJUSTING RINGS
4. OPERATOR NUT
5. WALL BRACKET
6. PACKING GLAND
7. 6" EXTENSION
8. #4 REBAR 12" ON CENTER EACH WAY 2" CLEAR TYPICAL FOR PRE-CAST BASE
9. BUTTERFLY VALVE
10. 3" DIAMETER DRAIN PVC SLEEVE REQUIRES GRATE.
11. 8 CU. FT. GRAVEL SUMP - 1" MINUS WASHED ROCK.
12. ADJUSTABLE PIPE SADDLE SUPPORT
13. RECTANGULAR CUT-OUT IN MANHOLE SHAFT, FILL SPACE BETWEEN SHAFT AND PIPE WITH 1" SHEET FOAM, BRICK AND MORTAR
14. DETAIL TO BE USED ON 24" OR ABOVE WATER LINES.

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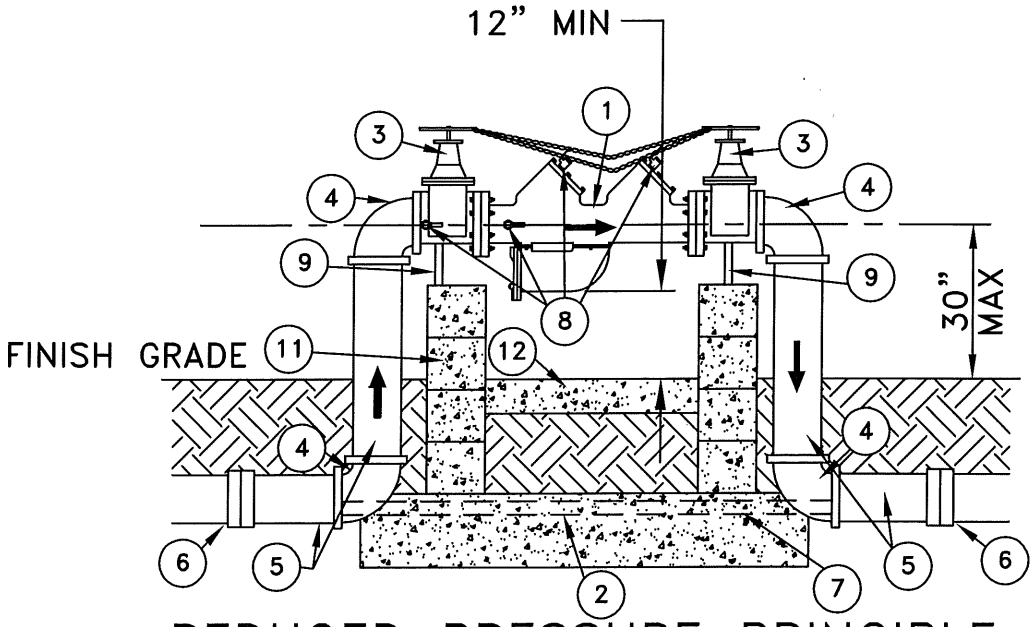
01/31/2008

CITY OF PEORIA
STANDARD DETAIL PE-351-1
CROSS CONNECTION CONTROL 3 - INCHES & LARGER REDUCED PRESSURE BACKFLOW PREVENTER

APPROVALS:

CITY ENGINEER — DATE 5/26/16

PW-UTILITIES DIRECTOR — DATE 5/26/16



REDUCED PRESSURE PRINCIPLE

LIST OF MATERIALS:

1. APPROVED BACKFLOW ASSEMBLY SHALL BE LEAD FREE, NO EXCEPTIONS FOR NON-POTABLE SYSTEMS.
2. COAT WITH COAL TAR EPOXY OR UTILIZE MANUFACTURER'S EPOXY COVERED SETTER.
3. RESILIANT SEATED GATE VALVE. (NON FIRE LINE) NON RISING STEM
4. 90° ELBOW (FLANGED D.I.P. 3-INCHES THRU 10-INCHES).
5. PIPE SPOOL (FLANGED D.I.P. 3-INCHES THRU 10-INCHES).
6. MECHANICAL JOINT
7. 3" X 3" X 1/4" STEEL ANGLE BOLT TO FLANGE AT EACH END OR UTILIZE MANUFACTURER'S SETTER (SUCH AS WILKINS, FEBCO, OR EQUIVALENT).
8. TEST COCK (4 REQUIRED).
9. ADJUSTABLE PIPE SUPPORT .
10. 8" X 8" X 16" CONCRETE BLOCK FILLED WITH MORTAR.
11. CONCRETE PAD FROM SUPPORT TO SUPPORT (4-INCHES DEEP X 12-INCHES WIDE).
12. CONSTRUCT 6" THICK CONCRETE BASE.

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05/31/2016

CITY OF PEORIA
STANDARD DETAIL PE-351-2
CROSS CONNECTION CONTROL 3 - INCHES & LARGER REDUCED PRESSURE BACKFLOW PREVENTER

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/8/09

NOTES:

A. CONTACT CITY OF PEORIA ENVIRONMENTAL/INDUSTRIAL USERS DIVISION FOR LIST OF APPROVED ASSEMBLIES.

B. THE FOUR TEST COCKS SHALL BE FITTED WITH BRASS PLUGS OR TEST COCK ADAPTERS AND CAPS. TEST COCKS SHALL BE USED FOR TESTING ONLY.

C. INSTALLATION SHALL BE PROTECTED BY SAFETY POSTS (BOLLARDS) IF NEAR TRAFFIC AREAS PER M.A.G. STANDARD DETAIL 140.

D. FINISHED MATERIAL UNDER BACKFLOW ASSEMBLY SHALL BE ADEQUATE TO PREVENT SUBSIDENCE OF ASSEMBLY.

E. ASSEMBLY SHALL BE PAINTED TAN OR COLOR TO MATCH BACKGROUND. DO NOT PAINT THE NAME PLATE OR ANY BRASS PARTS OF THE ASSEMBLY.

F. INSPECTIONS REQUIRED FOR: PIERS, THRSUTBLOCKS, ANGLE STEEL AND/OR SETTER ASSEMBLY. (BY CITY OF PEORIA CROSS CONNECTION STAFF)

G. BOTTOM OF LOWEST POINT ON ASSEMBLY TO BE 12-INCHES MIN. AND 30-INCHES MAX. TO ASSEMBLY CENTERLINE ABOVE CONCRETE PAD.

H. MINIMUM CLEARANCE FROM FRONT OF TEST COCKS TO NEAREST PERMANENT SURFACE SHALL BE 12-INCHES.

I. ASSEMBLY MUST BE INSPECTED BY CITY OF PEORIA BUILDING SAFETY DIVISION AND TESTED BY A CITY OF PEORIA RECOGNIZED TESTER.

J. PLUMBING PERMIT REQUIRED FOR INSTALLATION.

K. THRUST BLOCK PER MAG STANDARD DETAIL 380 IF SETTER IS NOT USED.

L. ALL BACKFLOW PREVENTION DEVICES ARE CONSIDERED PRIVATE AND NOT MAINTAINED BY THE CITY.

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03/30/2009

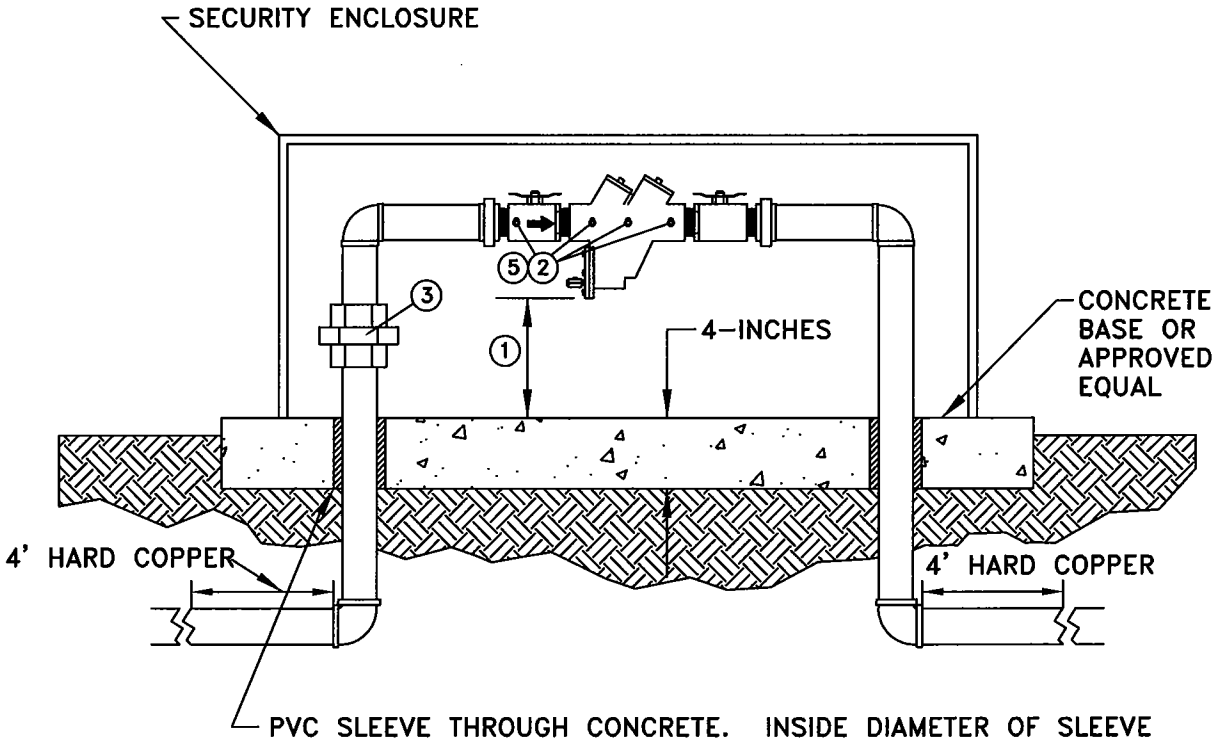
CITY OF PEORIA
STANDARD DETAIL PE-352-1
CROSS CONNECTION CONTROL 2 1/2 - INCHES & SMALLER REDUCED PRESSURE BACKFLOW PREVENTER

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/9/09

OUTSIDE INSTALLATION



NOTES:

1. BOTTOM OF ASSEMBLY MUST BE AT LEAST 12 - INCHES ABOVE THE SURFACE IMMEDIATELY BELOW THE RELIEF VALVE OPENING BUT NO MORE THAN 30 - INCHES ABOVE CONCRETE PAD.
2. MINIMUM CLEARANCE IN FRONT OF TEST COCKS TO NEAREST PERMANENT SURFACE SHALL BE 12 - INCHES.
3. MINIMUM OF ONE UNION REQUIRED, TYPE "L" HARD COPPER REQUIRED.
4. ASSEMBLIES MUST BE INSPECTED BY THE CITY OF PEORIA BUILDING SAFETY DIVISION AND TESTED BY A CITY RECOGNIZED TESTER.
5. ALL TEST COCKS SHALL HAVE BRASS PLUGS OR TEST COCK ADAPTERS AND CAPS IN PLACE. TEST COCKS SHALL BE USED FOR TESTING ONLY.
6. A PLUMBING PERMIT IS REQUIRED FOR INSTALLATION.
7. ASSEMBLIES MUST BE INSTALLED TO MANUFACTURERS SPECIFICATIONS.
8. SECURITY ENCLOSURE SHALL BE GUARDSHACK ENCLOSURES - HINGED P.C. MODEL GS PAINTED TAN OR APPROVED EQUAL.

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03/30/2009

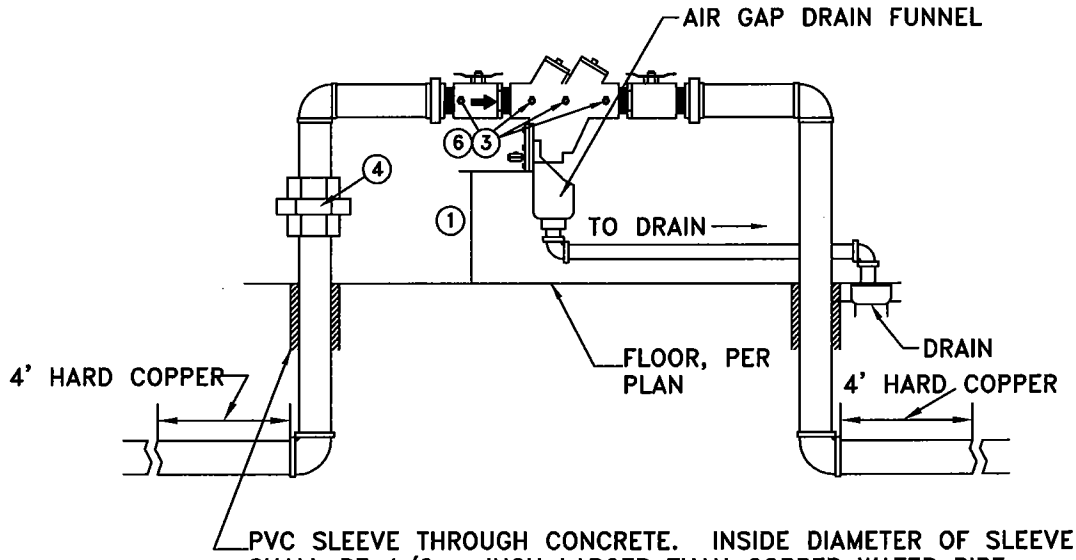
CITY OF PEORIA
STANDARD DETAIL PE-352-2
CROSS CONNECTION CONTROL 2 1/2 - INCHES & SMALLER REDUCED PRESSURE BACKFLOW PREVENTER

APPROVALS:

CITY ENGINEER — DATE 4/4/09

UTILITIES DIRECTOR — DATE 4/8/09

INSIDE INSTALLATION



MUST HAVE DRAIN IF INSTALLED INSIDE

NOTES:

1. BOTTOM OF ASSEMBLY MUST BE AT LEAST 12 - INCHES ABOVE THE FINISHED FLOOR IMMEDIATELY BELOW THE RELIEF VALVE OPENING.
2. ASSEMBLIES INSTALLED ABOVE 5-FEET FROM THE FLOOR MUST BE ACCESSIBLE, NOT POSE A SAFETY HAZARD, AND BE APPROVED BY BUILDING SAFETY.
3. MINIMUM CLEARANCE IN FRONT OF TEST COCKS TO NEAREST PERMANENT SURFACE SHALL BE 12 - INCHES.
4. MINIMUM OF ONE UNION REQUIRED, TYPE "L" HARD COPPER REQUIRED.
5. ASSEMBLIES MUST BE INSPECTED BY THE CITY OF PEORIA ENVIRONMENTAL/ INDUSTRIAL USERS DIVISION AND TESTED BY A CITY RECOGNIZED TESTER.
6. ALL TEST COCKS SHALL HAVE BRASS PLUGS OR TEST COCK ADAPTORS AND CAPS IN PLACE. TEST COCKS SHALL BE USED FOR TESTING ONLY.
7. A PLUMBING PERMIT IS REQUIRED FOR INSTALLATION.
8. CONTACT CITY OF PEORIA ENVIRONMENTAL/INDUSTRIAL USERS DIVISION FOR LIST OF APPROVED ASSEMBLIES.
9. ASSEMBLIES MUST BE INSTALLED TO MANUFACTURERS SPECIFICATIONS.
10. PIPING TO COMPLY TO CURRENT COP STANDARDS.

03/30/2009

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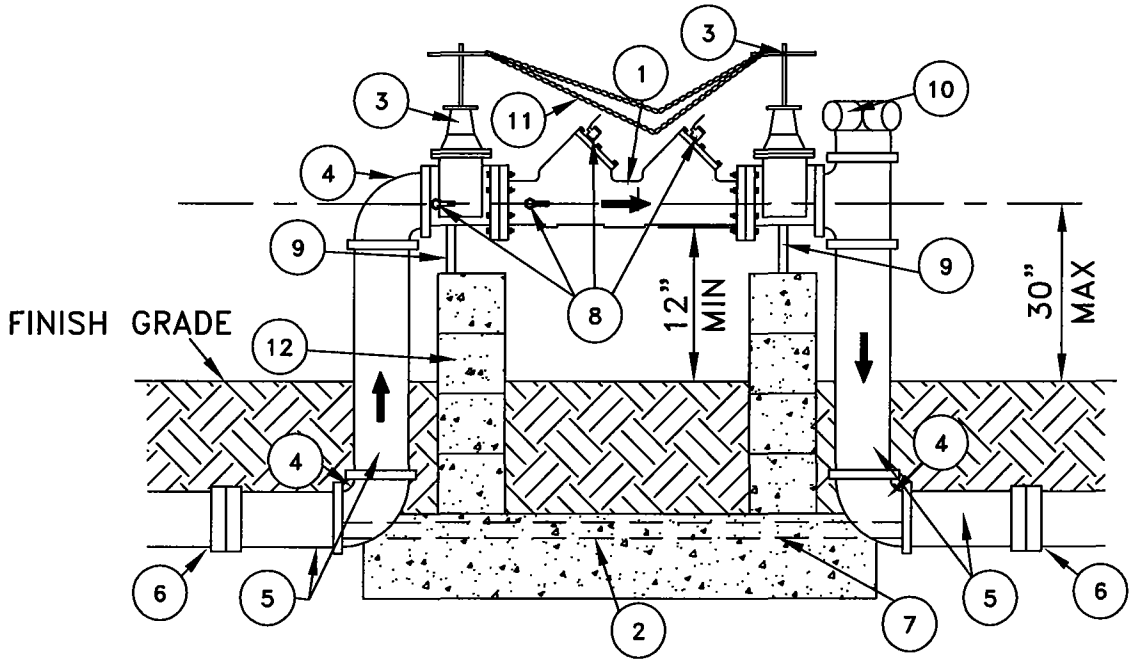
CITY OF PEORIA
STANDARD DETAIL PE-353-1
CROSS CONNECTION CONTROL 3 – INCHES & LARGER DOUBLE CHECK VALVE ASSEMBLY

APPROVALS:

CITY ENGINEER — DATE 4/4/09

UTILITIES DIRECTOR — DATE 4/8/09



LIST OF MATERIALS

1. APPROVED BACKFLOW ASSEMBLY.
2. COAT WITH COAL TAR EPOXY OR UTILIZE MANUFACTURER'S EPOXY COVERED SETTER.
3. RESILIANT SEATED GATE VALVE. O.S. & Y. (FIRE LINE CONNECTION)
4. 90° ELBOW (FLANGED D.I.P. 3–INCHES THRU 10–INCHES).
5. PIPE SPOOL (FLANGED D.I.P. 3–INCHES THRU 10–INCHES).
6. MECHANICAL JOINT
7. 3" X 3" X 1/4" STEEL ANGLE BOLT TO FLANGE AT EACH END OR UTILIZE MANUFACTURER'S SETTER (SUCH AS WILKINS, FEBCO, OR EQUIVALENT).
8. TEST COCK (4 REQUIRED)
9. ADJUSTABLE PIPE SUPPORT
10. SIAMESE FIRE CONNECTION (CONTACT PEORIA F.D. FOR SPECIFIC REQUIREMENTS)
11. CHAIN & LOCK (FIRE LINE MAY BE REQUIRED TO BE ELECTRONICALLY MONITORED, SEE P.F.D. FOR DETAILS, VALVES. CONTACT PEORIA FIRE DEPARTMENT FOR SPECIFIC REQUIREMENTS.)
12. 8" X 8" X 16" CONCRETE BLOCK FILLED WITH MORTAR
13. CONSTRUCT 6" THICK CONCRETE BASE

04/08/2009

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CITY OF PEORIA
STANDARD DETAIL PE-353-2
CROSS CONNECTION CONTROL 3 + INCHES & LARGER DOUBLE CHECK VALVE ASSEMBLY

APPROVALS:

CITY ENGINEER — DATE 4/4/09

UTILITIES DIRECTOR — DATE 4/3/09

NOTES:

A. CONTACT CITY OF PEORIA ENVIRONMENTAL/INDUSTRIAL USERS DIVISION FOR LIST OF APPROVED ASSEMBLIES.

B. THE FOUR TEST COCKS SHALL BE FITTED WITH BRASS PLUGS OR TEST COCK ADAPTERS AND CAPS. TEST COCKS SHALL BE USED FOR TESTING ONLY.

C. INSTALLATION SHALL BE PROTECTED BY SAFETY POSTS (BOLLARDS) IN TRAFFIC AREAS PER M.A.G. STANDARD DETAIL 140.

D. FINISHED MATERIAL UNDER BACKFLOW ASSEMBLY SHALL BE ADEQUATE TO PREVENT SUBSIDENCE OF ASSEMBLY.

E. ASSEMBLY SHALL BE PAINTED TAN OR COLOR TO MATCH BACKGROUND. DO NOT PAINT THE NAME PLATE OR ANY BRASS PARTS OF THE ASSEMBLY.

F. INSPECTIONS REQUIRED FOR: PIERS, THRUSTBLOCKS, ANGLE STEEL AND/OR SETTER ASSEMBLY.

G. BOTTOM OF LOWEST POINT ON ASSEMBLY TO BE 12-INCHES MIN. AND 30-INCHES MAX. TO ASSEMBLY CENTERLINE ABOVE CONCRETE PAD.

H. MINIMUM CLEARANCE FROM FRONT OF TEST COCKS TO NEAREST PERMANENT SURFACE SHALL BE 12-INCHES.

I. ASSEMBLY MUST BE INSPECTED BY CITY OF PEORIA ENVIRONMENTAL/INDUSTRIAL USERS DIVISION AND TESTED BY A CITY OF PEORIA RECOGNIZED TESTER.

J. PLUMBING PERMIT REQUIRED FOR INSTALLATION.

K. THRUST BLOCK PER MAG STANDARD DETAIL 380 IF SETTER IS NOT USED.

L. ALL BACKFLOW PREVENTION DEVICES ARE CONSIDERED PRIVATE AND NOT MAINTAINED BY THE CITY.

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03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-354-1
METER 3"

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/9/09

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CITY OF PEORIA
STANDARD DETAIL PE-354-2
METER 3" AND LARGER

APPROVALS:

CITY ENGINEER — DATE 4/4/09

UTILITIES DIRECTOR — DATE 4/9/09

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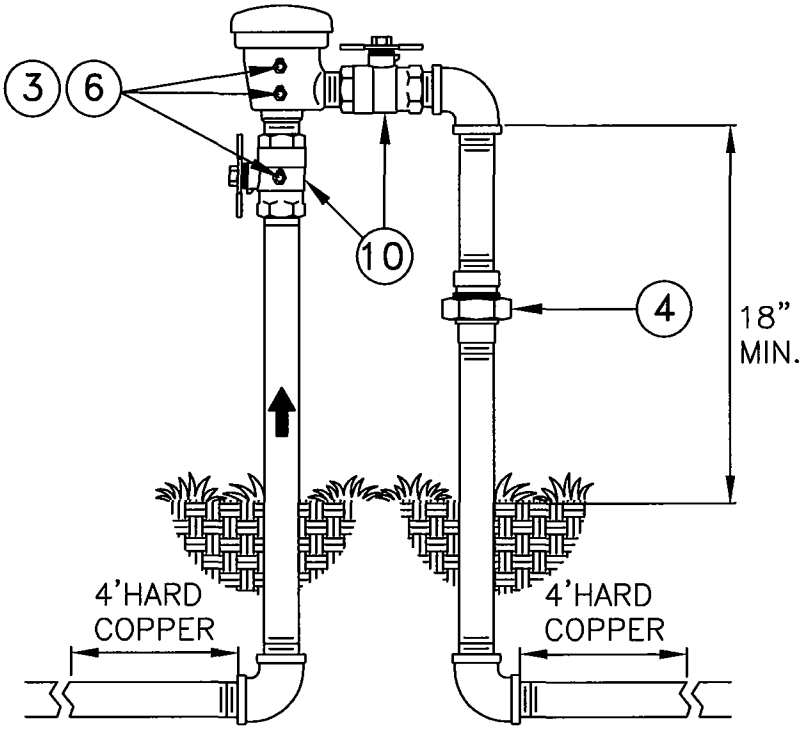
03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-355
PRESSURE VACUUM BREAKER ASSEMBLY
RESIDENTIAL

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/9/09



NOTES:

1. BOTTOM OF ASSEMBLY MUST BE AT LEAST 12 – INCHES ABOVE ALL DOWNSTREAM PIPING .
2. ASSEMBLIES INSTALLED ABOVE 5 – FEET FROM THE FLOOR MUST BE ACCESSIBLE NOT POSE A SAFETY HAZARD, AND BE APPROVED BY BUILDING SAFETY.
3. MINIMUM CLEARANCE IN FRONT OF TEST COCKS TO NEAREST PERMANENT SURFACE SHALL BE 12 – INCHES.
4. MINIMUM OF ONE UNION REQUIRED, TYPE "L" HARD COPPER REQUIRED.
5. ASSEMBLIES MUST BE INSPECTED BY THE CITY OF PEORIA BUILDING SAFETY DIVISION AND TESTED BY A CITY RECOGNIZED TESTER.
6. ALL TEST COCKS SHALL HAVE BRASS PLUGS OR TEST COCK ADAPTERS AND CAPS IN PLACE. TEST COCKS SHALL BE USED FOR TESTING ONLY.
7. PRESSURE VACUUM BREAKERS SHALL NOT BE USED FOR COMMERCIAL IRRIGATION SYSTEMS.
8. A PLUMBING PERMIT IS REQUIRED FOR INSTALLATION.
9. ASSEMBLIES MUST BE INSTALLED AS DESIGNED AND CONSTRUCTED BY THE MANUFACTURER.
10. BALL VALVES ARE REQUIRED UPSTREAM AND DOWNSTREAM OF THE ASSEMBLY.

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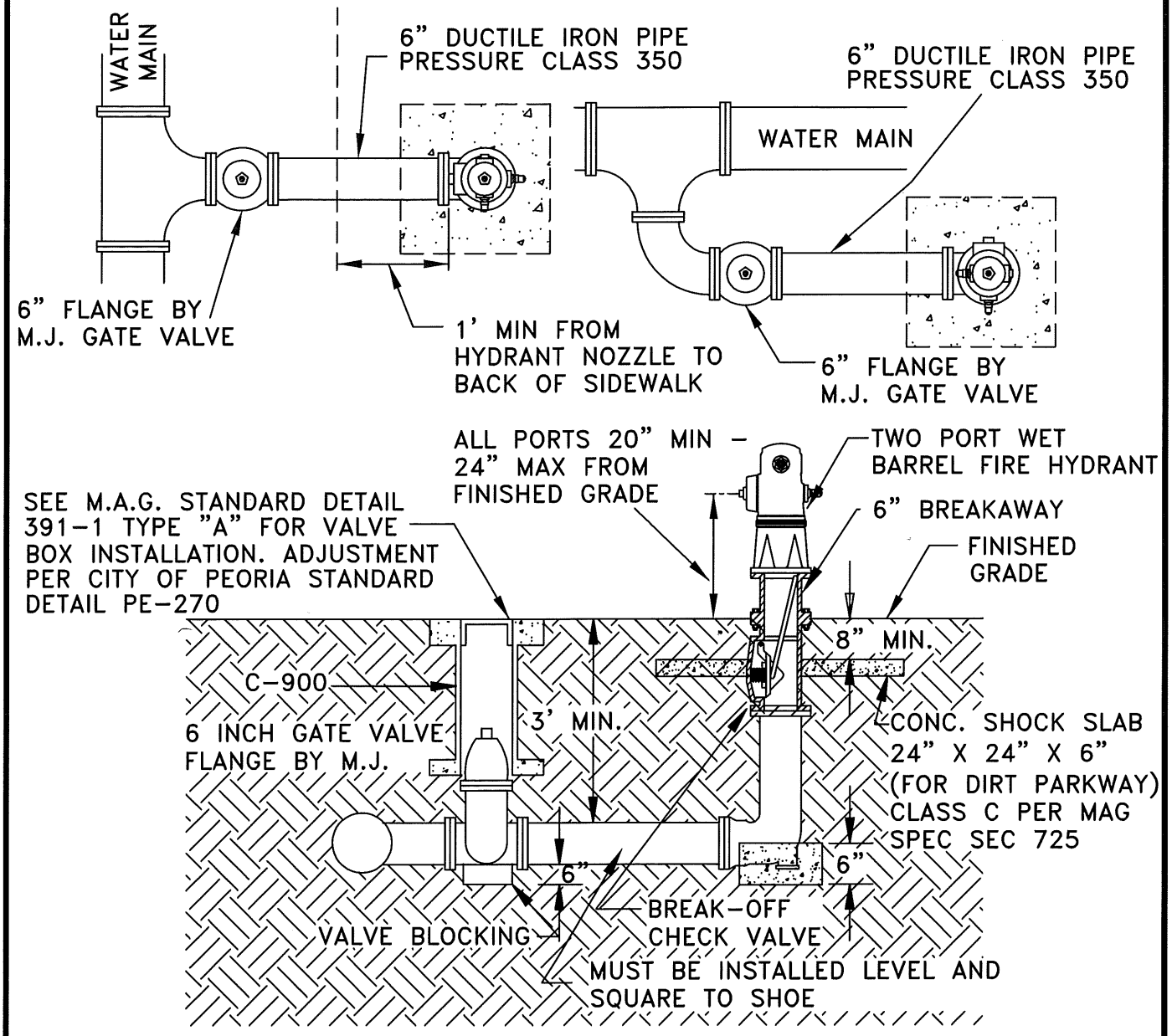
03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-360-1
RESIDENTIAL
FIRE HYDRANT INSTALLATION

APPROVALS:

ENGINEERING DIRECTOR — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16



1. ALL JOINTS SHALL BE RESTRAINED, INCLUDING MAIN AT TEE ENDS.
2. APPROVED HYDRANTS INCLUDE: SEE DETAIL PE-101
3. BREAK-OFF CHECK VALVE - SEE DETAIL PE-101.
4. THE 6" GATE VALVE SHALL BE FLANGED BY MECHANICAL JOINT.
5. NO VALVES ARE TO BE IN THE CONCRETE.
6. THE 4 1/2" PORT ON THE HYDRANT SHALL BE INSTALLED FACING THE STREET.
7. CLEARANCE PER DETAIL PE-361.
8. THE HYDRANT SHALL HAVE 1 - 2 1/2" PORT, AND 1 - 4 1/2" PORT.
9. NATIONAL STANDARD THREADS REQUIRED ON ALL CONNECTIONS.
10. INSTALL FIRE HYDRANT MARKER PER MAG DETAIL NO. 122.
11. CITY OWNED HYDRANT SHALL BE PAINTED CATERPILLAR OLD YELLOW #1 OR SAFETY YELLOW.

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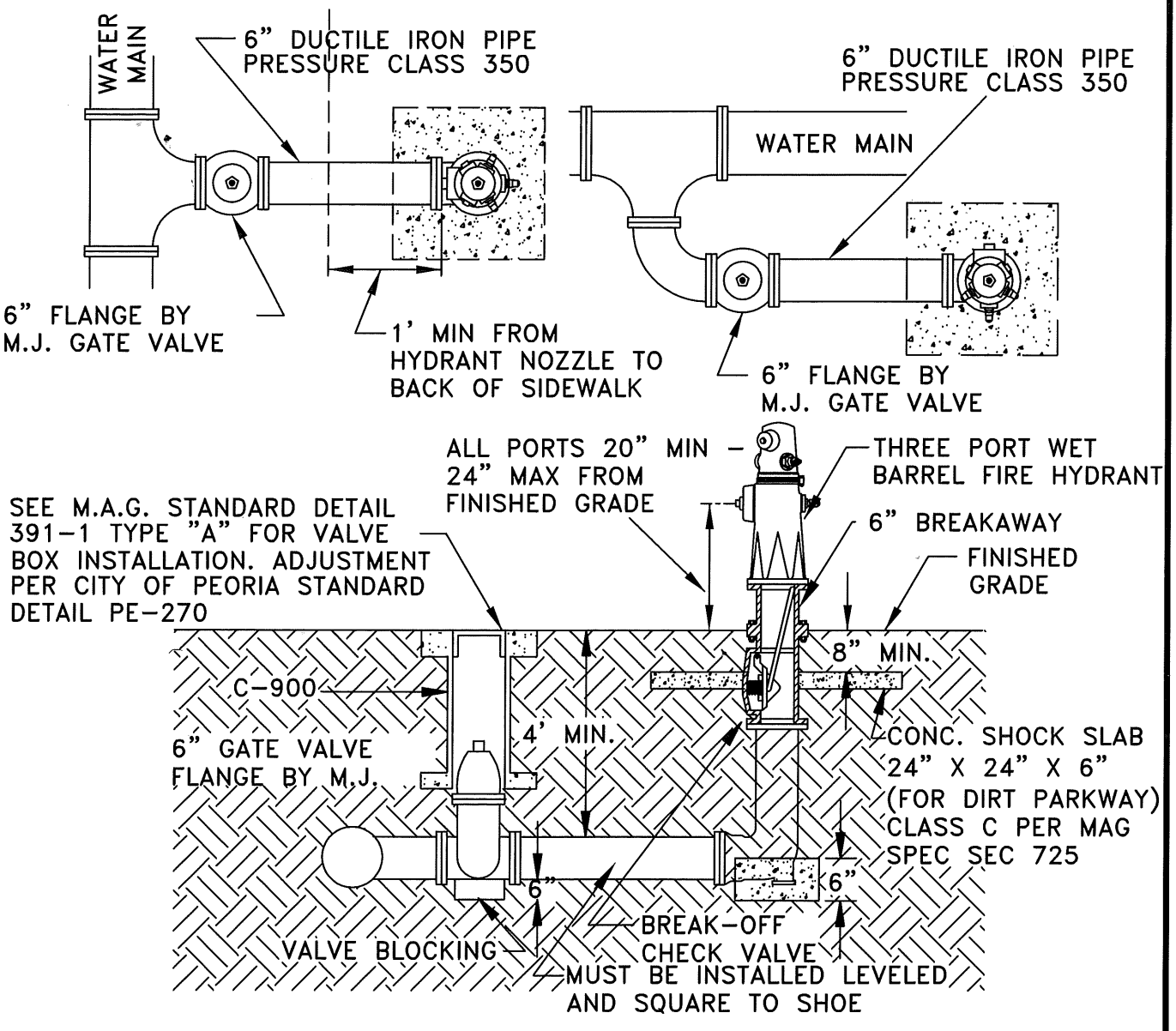
01/30/2016

CITY OF PEORIA
STANDARD DETAIL PE-360-2
COMMERCIAL
FIRE HYDRANT INSTALLATION

APPROVALS:

ENGINEERING DIREC — DATE 3/7/2016

PW-UTILITIES DIRECTOR — DATE 3/7/16



1. ALL JOINTS SHALL BE RESTRAINED, INCLUDING MAIN AT TEE ENDS.
2. APPROVED HYDRANTS INCLUDE: SEE DETAIL PE-101
3. BREAK-OFF CHECK VALVE - SEE DETAIL PE-101.
4. THE 6" GATE VALVE SHALL BE FLANGED BY MECHANICAL JOINT.
5. NO VALVES ARE TO BE IN THE CONCRETE.
6. THE 4 1/2" PORT ON THE HYDRANT SHALL BE INSTALLED FACING THE STREET.
7. CLEARANCE PER DETAIL PE-361.
8. THE HYDRANT SHALL HAVE 2 - 2 1/2" PORTS, AND 1 - 4 1/2" PORT.
9. NATIONAL STANDARD THREADS REQUIRED ON ALL CONNECTIONS.
10. INSTALL FIRE HYDRANT MARKER PER MAG DETAIL NO. 122.
11. CITY OWNED HYDRANT SHALL BE PAINTED CATERPILLAR OLD YELLOW #1 OR SAFETY YELLOW.

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1/30/2016

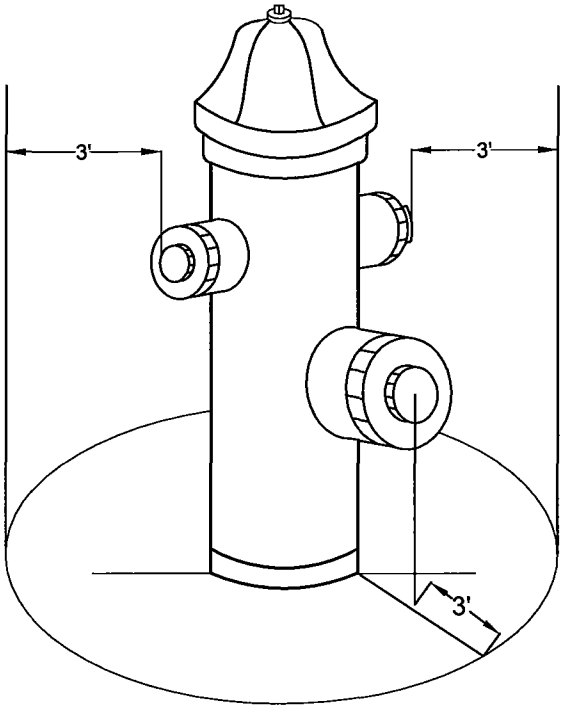
CITY OF PEORIA
STANDARD DETAIL PE-361
HYDRANT/FDC CLEARANCES

APPROVALS:

CITY ENGINEER — DATE 4/14/09

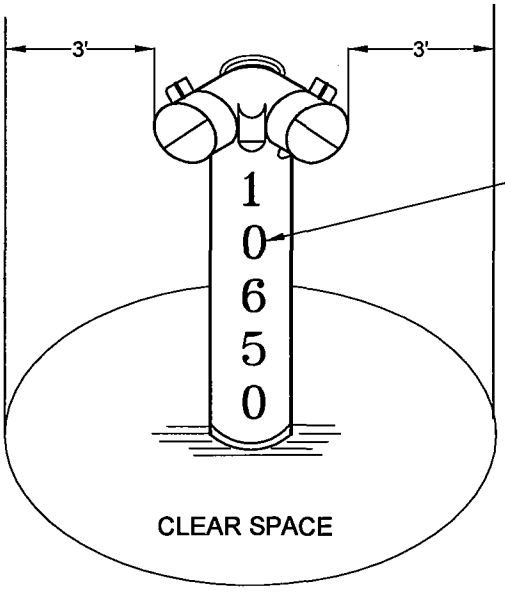
FIRE CHIEF — DATE 4-14-09

(DEPICTION OF DRY BARREL HYDRANT)



CITY OWNED HYDRANTS SHALL BE PAINTED YELLOW.

DO NOT PLANT ANY TREES OR SHRUBS THAT WILL ENCROACH ON THE CLEAR SPACE INDICATED, WHEN THE PLANTS OR TREES ARE MATURE.



STANDPIPE TO BE PAINTED RED WITH 2" HIGH WHITE REFLECTIVE NUMBERS

(REMOTE FDC BY FIRE MARSHALL AUTHORIZATION ONLY)

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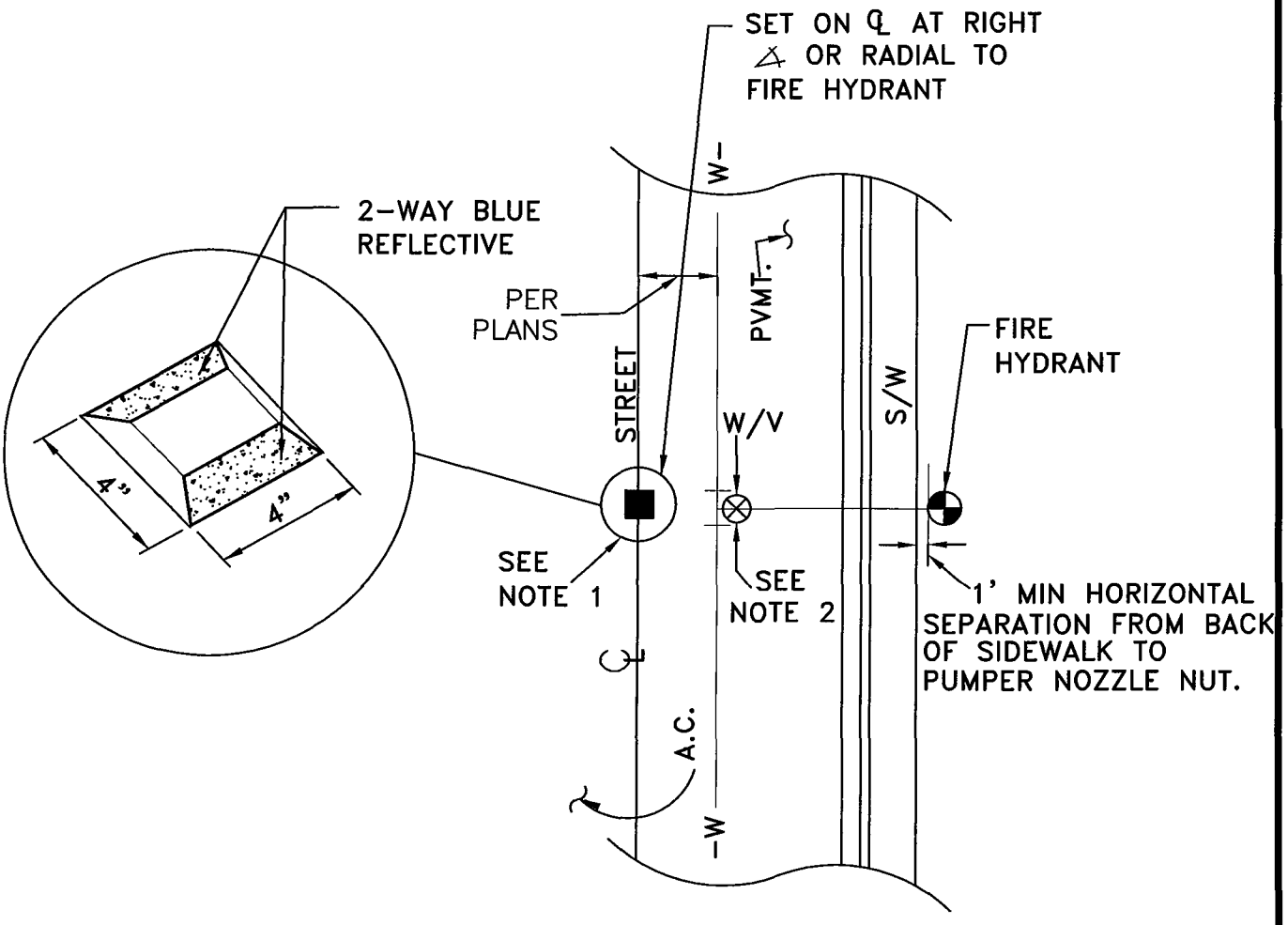
03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-362
FIRE HYDRANT MARKER LOCATION

APPROVALS:

CITY ENGINEER _____ DATE 8/22/07

FIRE CHIEF _____ DATE 8-20-07



FIRE HYDRANT MARKER LOCATION

1. CENTER MARKER ON LOCAL STREETS.
2. PLACE MARKER OVER TEE ON COLLECTORS & ARTERIALS.

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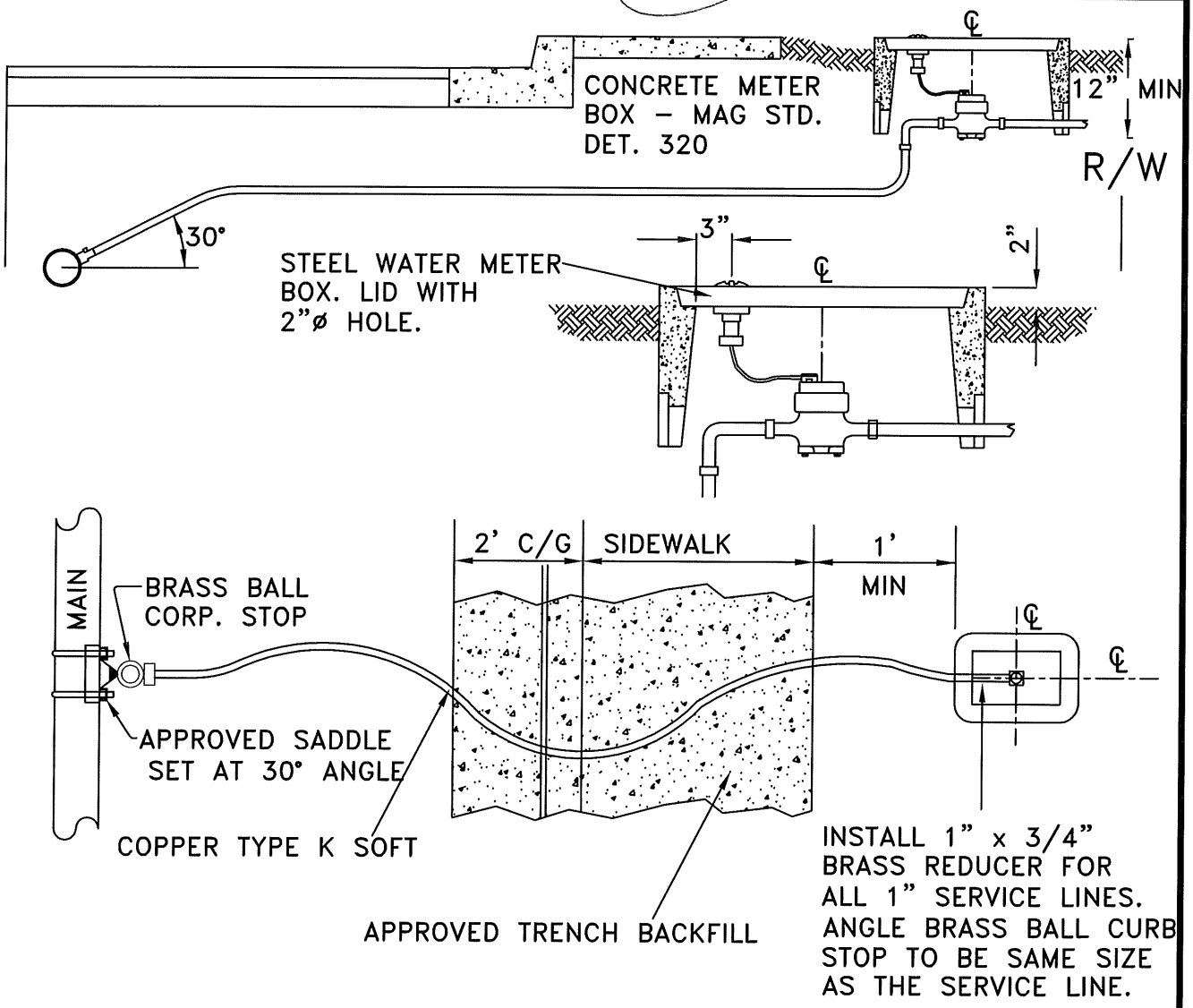
08/20/2007

CITY OF PEORIA
STANDARD DETAIL PE-363
WATER METER BOX LOCATION AND CONSTRUCTION SERVICES LESS THAN 2"

APPROVALS:

ENGINEERING DIRECTOR — DATE 1/14/15

PW-UTILITIES DIRECTOR — DATE 01-15-2015



NOTES:

1. 30" MINIMUM COVER IS REQUIRED FOR SERVICE LINES.
2. NO COUPLINGS ALLOWED ON SERVICE LINE.
3. FOR CUL-DE-SAC LOTS ONLY, THE WATER METER SHALL BE PLACED AT THE BACK OF THE SIDEWALK.
4. ALL WATER METER BOXES TO BE LEVEL WITH THE BACK OF THE SIDEWALK.
5. ALLOWABLE SERVICE LINE SIZES: 1", 1-1/2" & 2".
6. ALL MATERIAL SHALL CONFORM TO THE LATEST MAG SPECIFICATIONS.
7. ACCEPTABLE SADDLES INCLUDE: MUELLER: BR2B
   FORD: 202B BRASS
   JONES: J979
   A.Y. MCDONALD: 3825
8. BEDDING: SAND OR CLEAN NATIVE 3/8" MINUS.

1/8/2015

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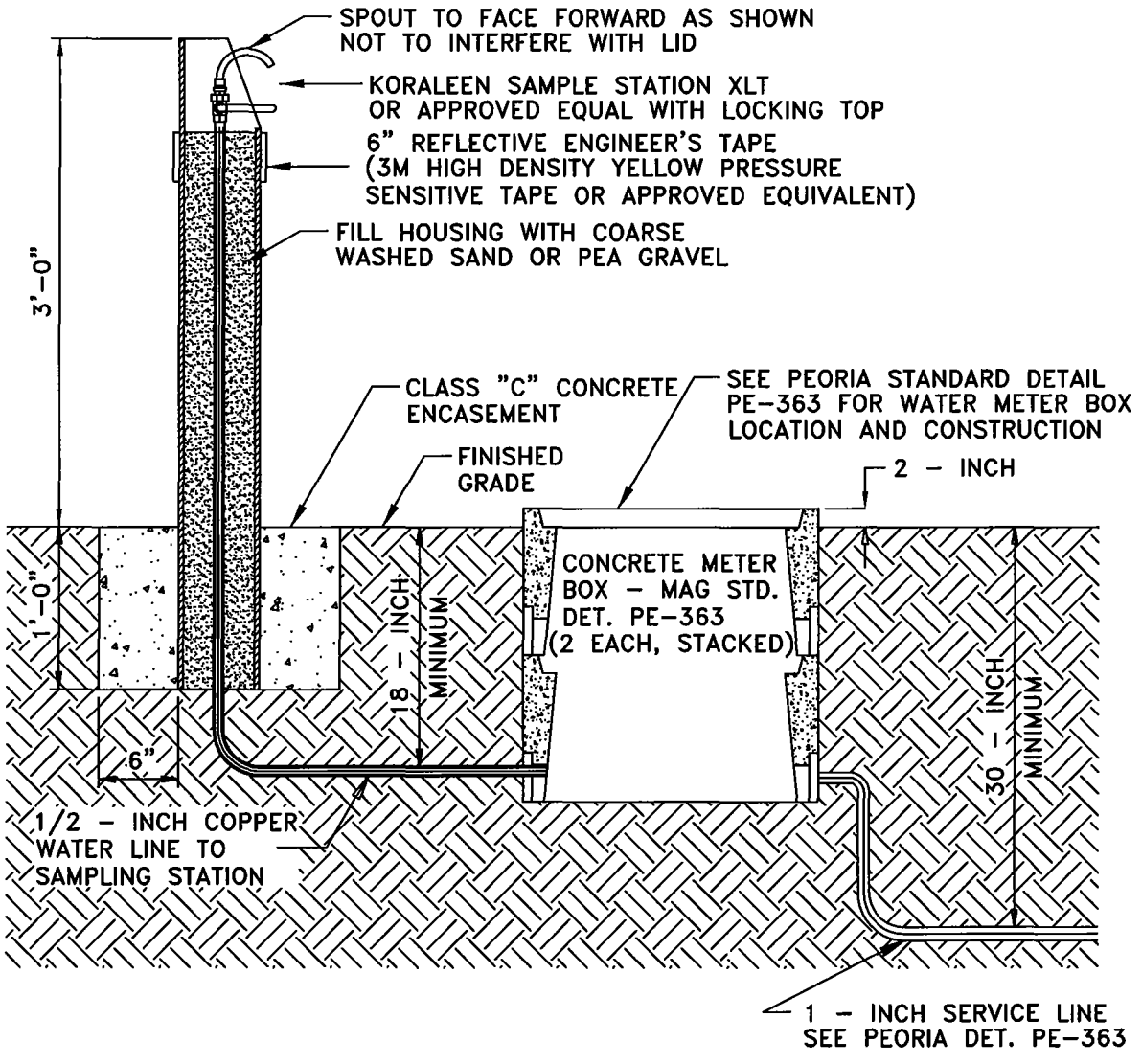
CITY OF PEORIA
STANDARD DETAIL PE-371
WATER QUALITY SAMPLING STATION

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/9/09



NOTE:

1. THE LOCATION OF THE SAMPLING STATION SHALL BE A MINIMUM OF 5 FEET BEHIND BACK OF CURB.

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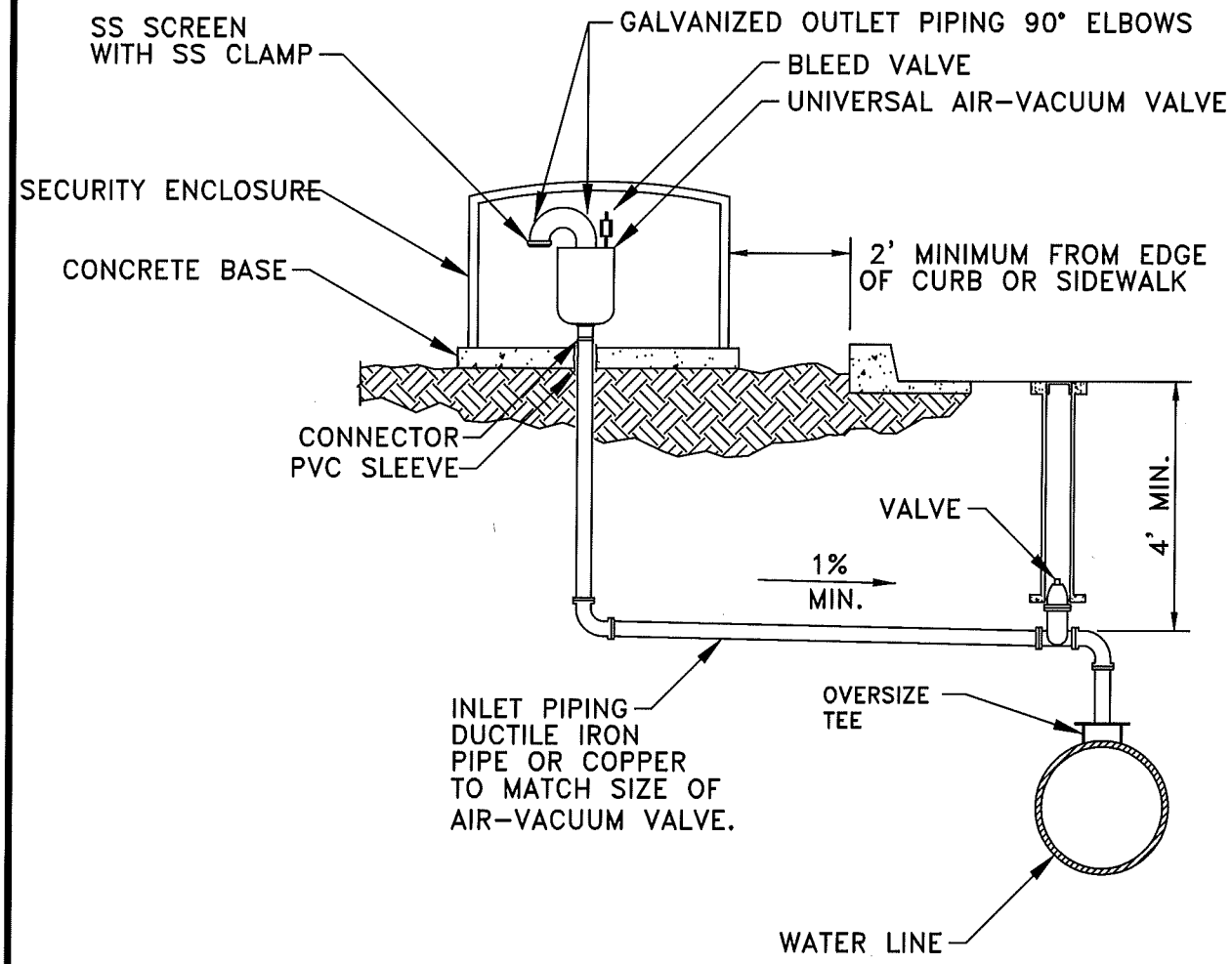
04/08/2009

CITY OF PEORIA
STANDARD DETAIL PE-395
UNIVERSAL AIR-VACUUM VALVE

APPROVALS:

CITY ENGINEER — DATE 3/5/14

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 03-05-2014



NOTES:

1. SECURITY ENCLOSURE SHALL BE GUARDSHACK ENCLOSURES – GS HINGED POWDER COAT TAN OR APPROVED EQUAL WITH PADLOCK HASP.
2. LINE FROM MAIN TO AIR RELEASE VALVE TO BE INSTALLED WITH POSITIVE SLOPE TO PREVENT BLOCKAGE.
3. CONCRETE BASE – 4 – INCH THICK WITH NUMBER 4 REBAR @ 12 – INCH EACH WAY. BASE DIMENSIONS SHALL BE 12 – INCHES GREATER THAN INSIDE DIMENSIONS OF SECURITY ENCLOSURE.
4. FIELD PAINT ALL FITTINGS AND SECURITY ENCLOSURE "DESERT TAN."
5. SIZE OF UNIVERSAL AIR-VACUUM VALVE AND APPURTENANCES SHALL BE SPECIFIED BY THE DESIGN ENGINEER.

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01/01/2014

CITY OF PEORIA
STANDARD DETAIL PE-398
TYPICAL VALVE LOCATION

APPROVALS:

CITY ENGINEER — DATE 4/14/09

UTILITIES DIRECTOR — DATE 4/9/09

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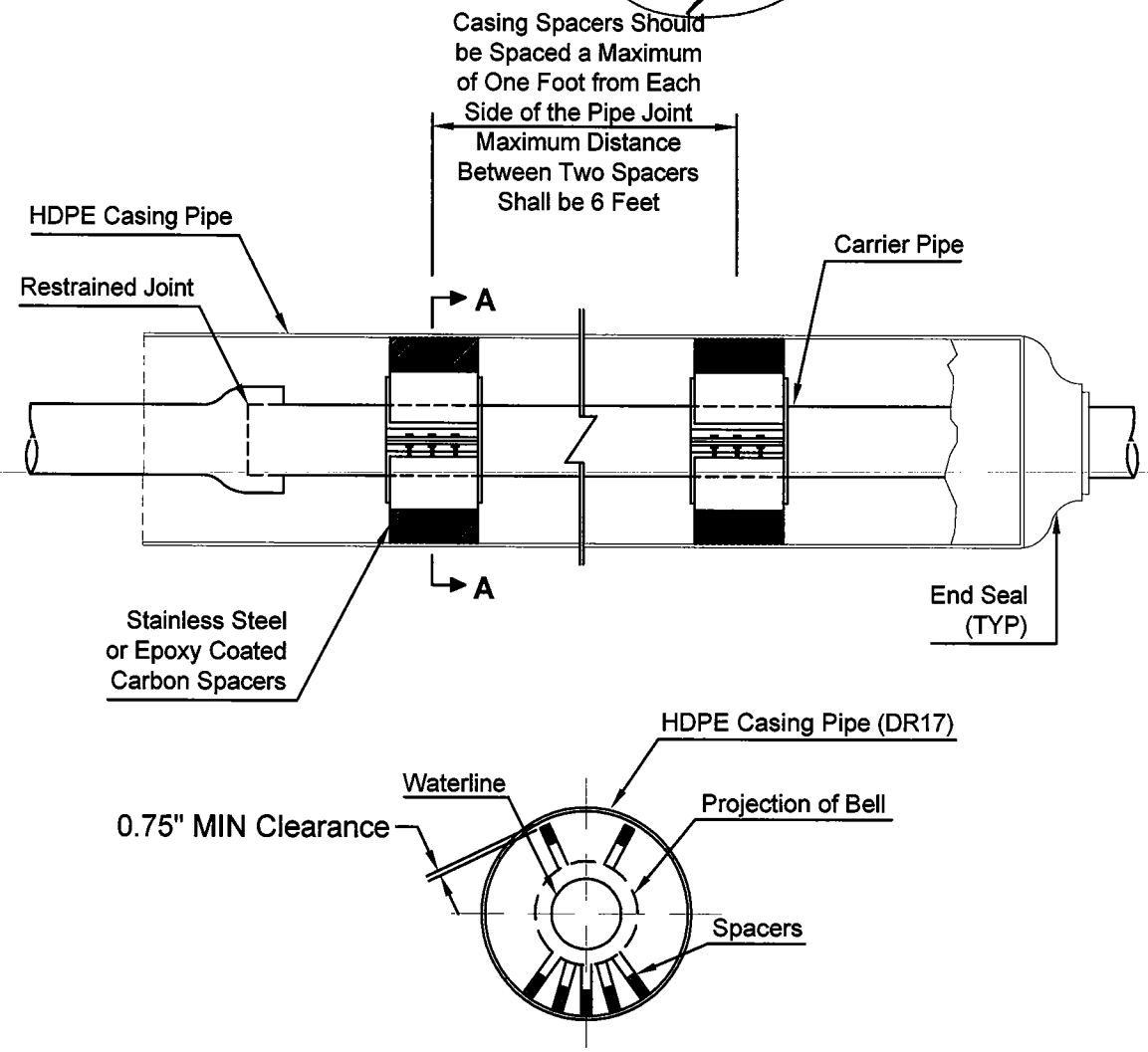
03/30/2009

CITY OF PEORIA
STANDARD DETAIL PE-399
CASING WITH CARRIER PIPE

APPROVALS:

CITY ENGINEER — DATE 12/15/11

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 12-15-2011



SECTION A-A

NOTES:

1. CASING SPACERS SHALL BE CASCADE WATERWORKS MFG, ADVANCED PRODUCTS & SYSTEMS OR EQUAL.
2. END SEALS SHALL BE PULL ON RUBBER WITH STAINLESS STEEL BANDS.
3. ALL CASINGS SHALL BE HIGH-DENSITY POLYETHYLENE PIPE (HDPE) DR 17, PE 3608/3408 DIPS. ALL HDPE CASING PIPE SHALL CONFORM TO ASTM D 3350-05 AND ANSI/AWWA C 906-2006 AND SHALL BE INSTALLED PER ASTM D 2774-04. JOINTING SHALL MEET EITHER ASTM F 2620 OR ASTM F 1290.
4. CASING PIPE DIAMETER PER MAG 602.2.

12/14/2011

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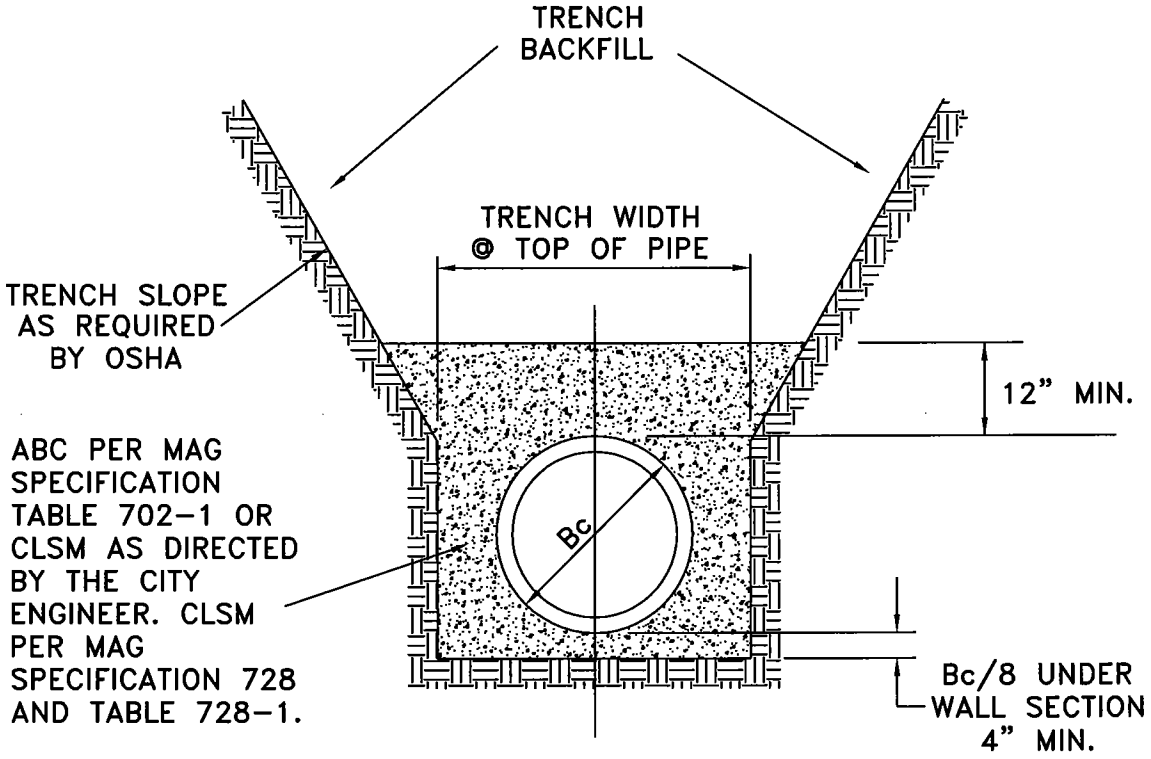
CITY OF PEORIA
STANDARD DETAIL PE-401
BEDDING AND BACKFILL

APPROVALS: David Moody 3/10/08
CITY ENGINEER DATE



BC = OUTSIDE DIAMETER OF WALL SECTION

NOTE:

1. TRENCH BACKFILL SHALL CONFORM TO MAG SPECIFICATION 601.4.3

* CMP UNDERGROUND OR CONCEALED RETENTION/DETENTION FACILITIES SHALL CONFORM TO CITY OF PEORIA STANDARD DETAIL PE-402.

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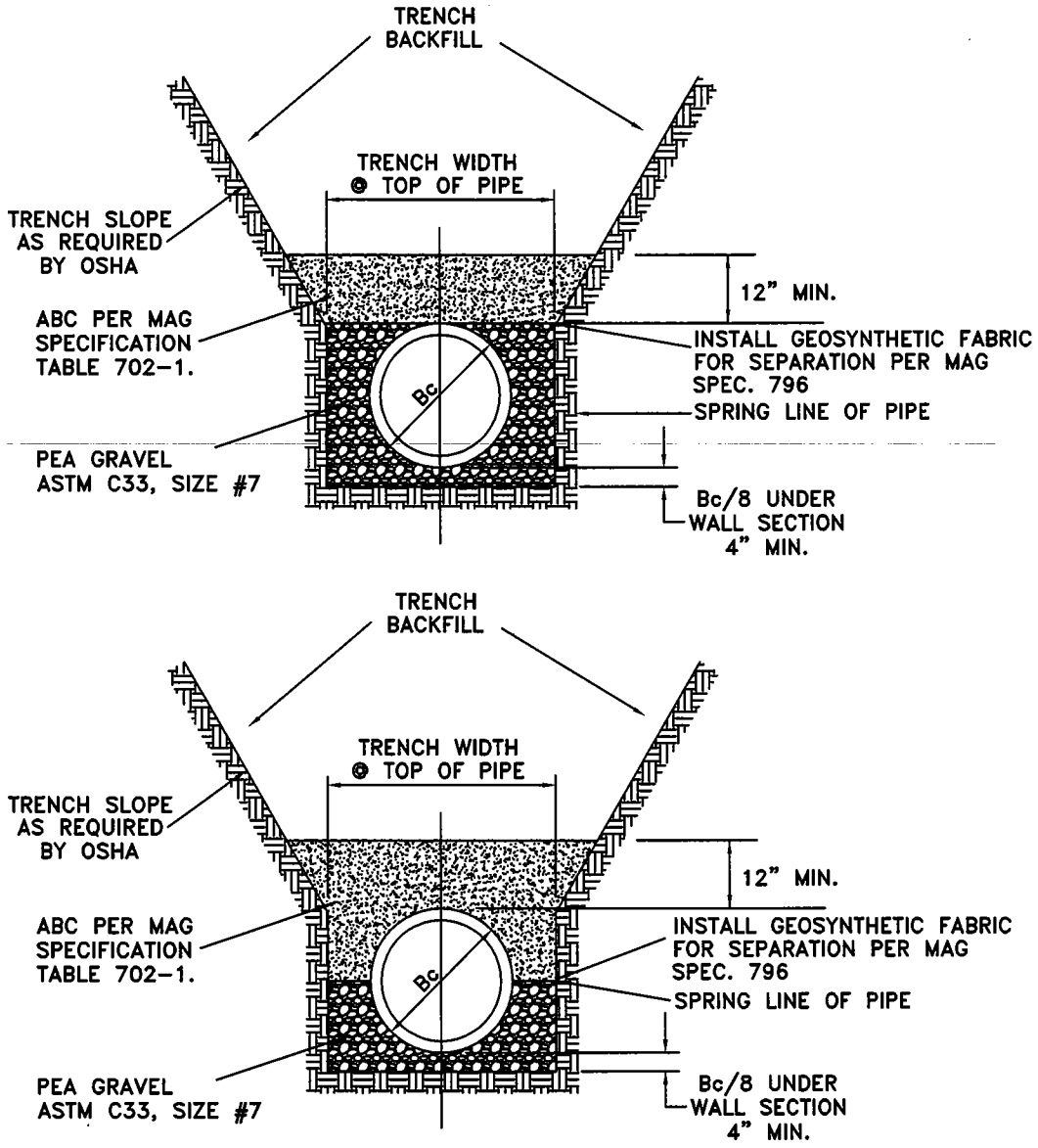
02/07/2008

CITY OF PEORIA
STANDARD DETAIL PE-402
BEDDING AND BACKFILL FOR CMP

APPROVALS: _____ 3/27/12
CITY ENGINEER DATE



BC = OUTSIDE DIAMETER OF CMP

NOTE:

1. TRENCH BACKFILL SHALL CONFORM TO MAG SPECIFICATION 601.4.3

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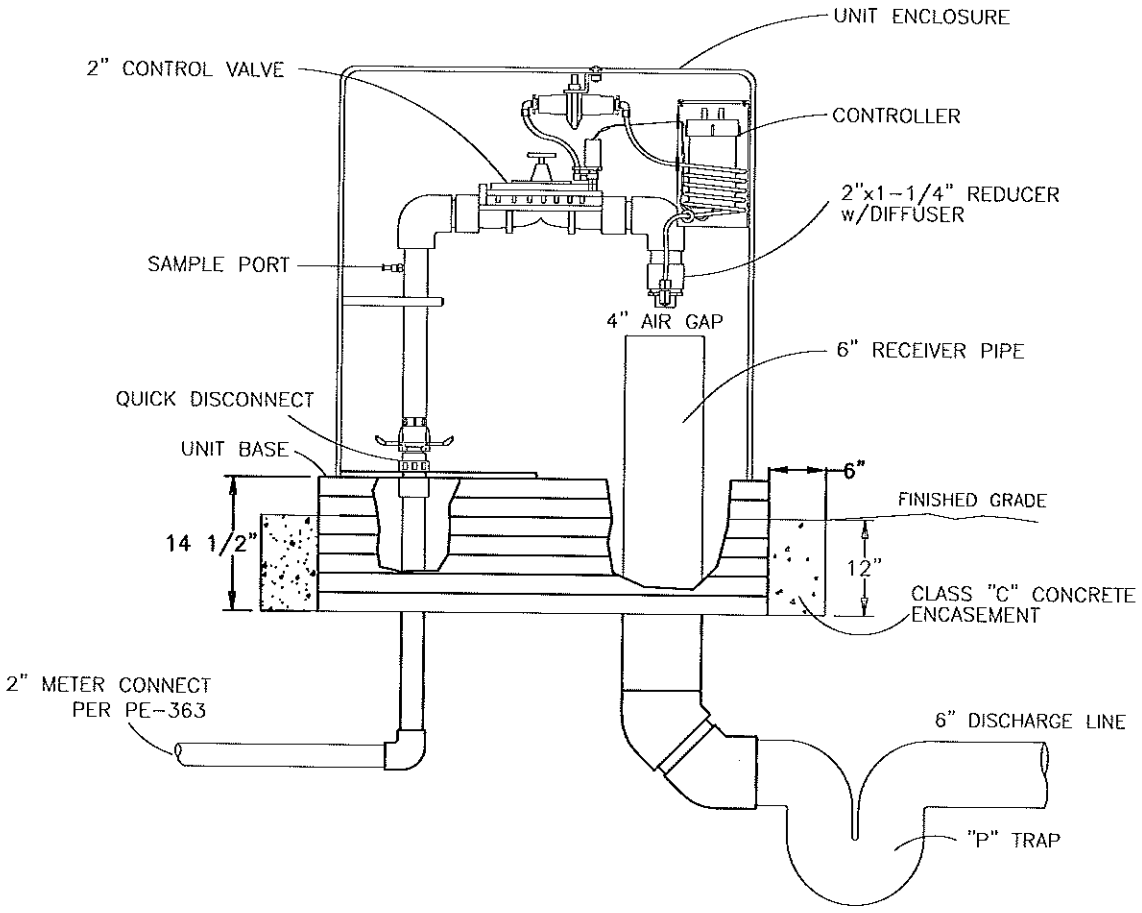
09/29/2011

CITY OF PEORIA
STANDARD DETAIL PE-410
AUTOMATIC FLUSHER

APPROVALS:

CITY ENGINEER — DATE 2/6/14

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 01-14-2014



TYPICAL INSTALL

N.T.S.

NOTES:

1. AUTOMATIC FLUSHING UNIT SHALL BE HYDROGUARD HG-2 (OR EQUIVALENT).
2. UNIT ENCLOSURE SHALL BE APPROVED BY THE ENGINEERING DEPARTMENT.
3. RECEIVER AND DISCHARGE PIPE SHALL BE SDR-35 PVC.
4. FILL INSIDE OF BASE WITH A 2 INCH LAYER OF PEA GRAVEL.

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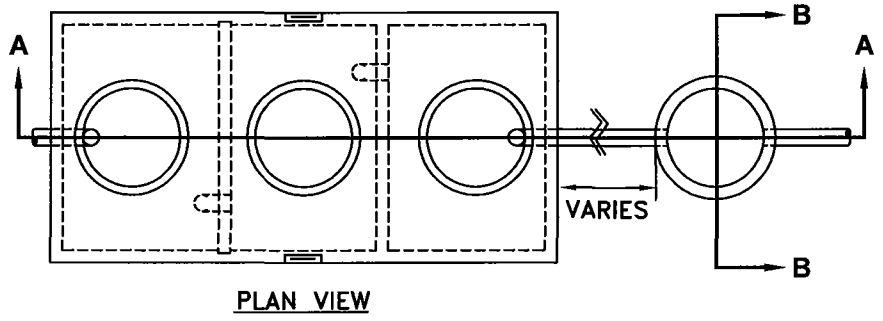
01/01/2014

CITY OF PEORIA
STANDARD DETAIL PE-450
TYPICAL GREASE WASTE INTERCEPTOR REQUIREMENTS

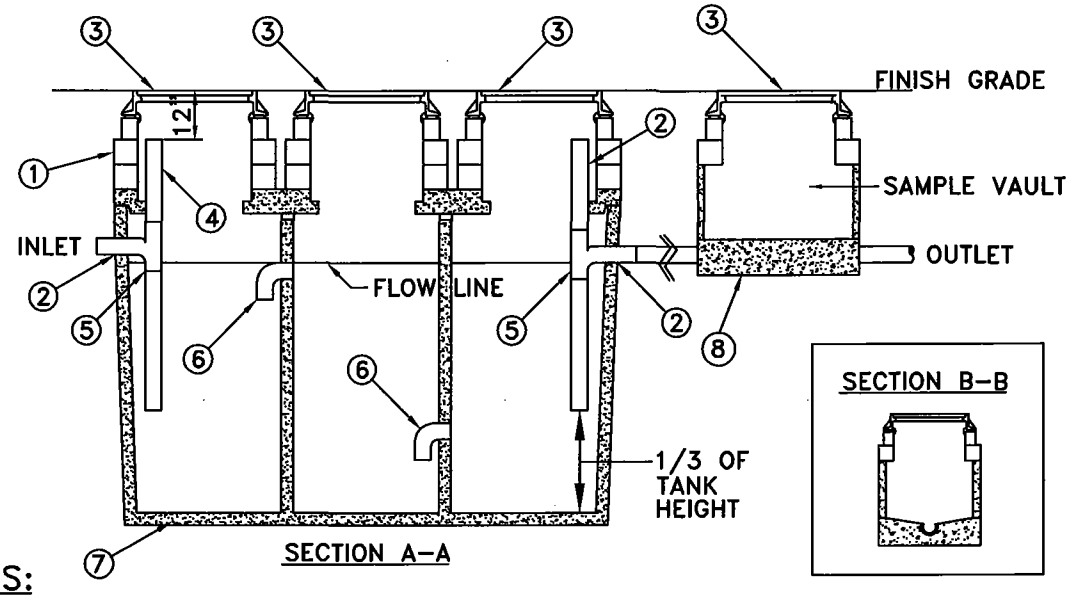
APPROVALS:

CITY ENGINEER — DATE 3/28/08

UTILITIES DIRECTOR — DATE 3/28/08



PLAN VIEW



NOTES:

1. ALL GRADIENT RISERS, INCLUDING THE MANHOLE FRAME, WILL HAVE THE INTERIOR SEALED WITH NON-SHRINK GROUT.
2. EXTERNAL INLET AND OUTLET PIPE ACCESS HOLES SHALL BE SEALED WITH NON-SHRINK GROUT.
3. MANHOLE, FRAME, AND COVER FOR INTERCEPTOR AND SAMPLE VAULT MUST HAVE CONCRETE COLLAR PER M.A.G. DETAIL 422. (M.A.G. DETAIL 424 IN TRAFFIC AREAS)
4. INTERNAL SANITARY "T"s SHALL BE EXTENDED TO 12-INCHES BELOW THE MANHOLE LID OR ACCESS LID
5. SANITARY TEE (TYPICAL) - BOTH INLET AND OUTLET DOWN DRAFT TUBES ARE TO BE 1/3 OF THE TOTAL TANK HEIGHT FROM THE BOTTOM OF THE TANK.
6. 4-INCH DIAMETER MINIMUM PVC ELBOW
7. INTERCEPTOR MUST BE SMITH PRE-CAST OR EQUILVALENT. (CAPACITY VARIES)
8. SAMPLE VAULT MUST BE SMITH PRE-CAST OR EQUILVALENT.
9. INTERCEPTOR AND VAULT MUST BE INSPECTED BY THE CITY OF PEORIA ENVIRONMENTAL/INDUSTRIAL USER DIVISION
10. A PLUMBING PERMIT IS REQUIRED FOR REPLACEMENT.

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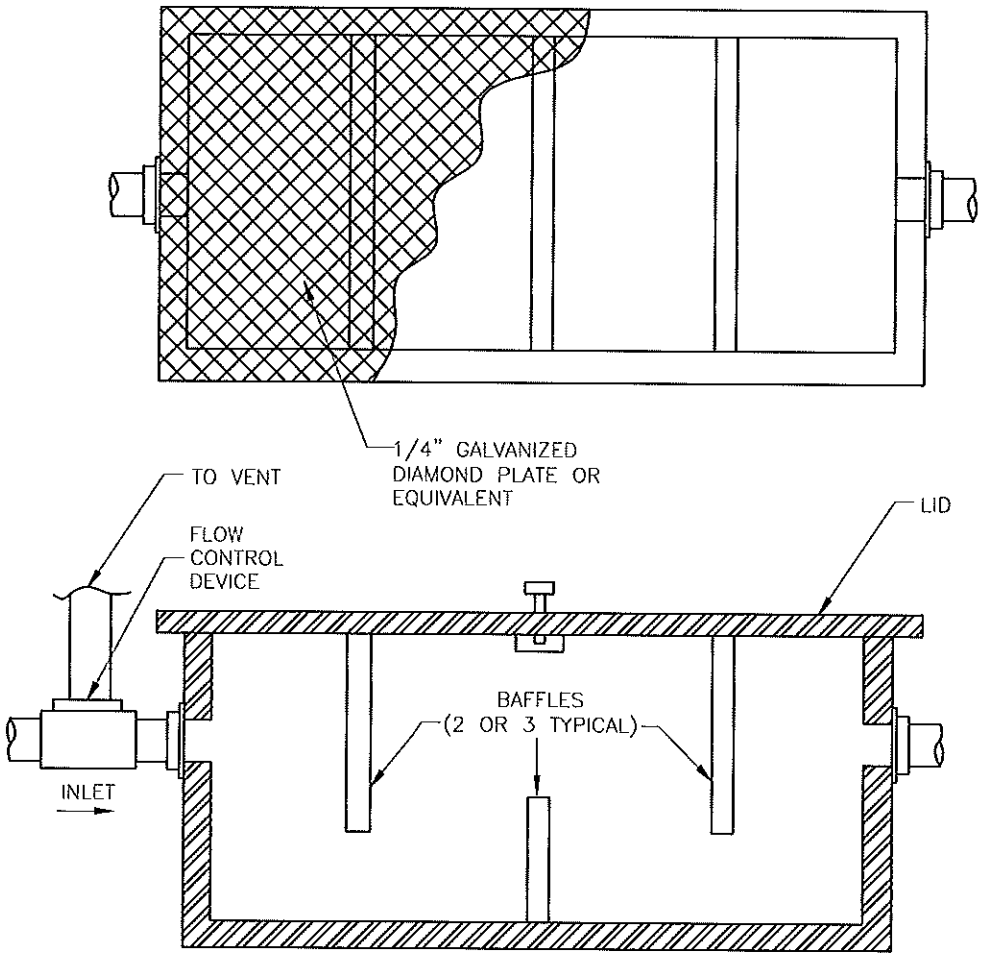
03/21/2008

CITY OF PEORIA
STANDARD DETAIL PE-451
TYPICAL GREASE TRAP REQUIREMENTS

APPROVALS:

CITY ENGINEER — DATE 2/6/14

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 01-14-2014



NOTES:

1. MUST BE METAL CONSTRUCTED – ALL OTHER MATERIALS MUST HAVE WASTEWATER ENVIRONMENTAL APPROVAL.
2. A FLOW CONTROL DEVICE MUST BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS ON THE INLET PIPE PRIOR TO ENTERING THE GREASE TRAP.
3. TRAPS MAY BE INSTALLED ABOVE GROUND OR BELOW FLOOR GRADE.
4. FILL WITH CLEAN WATER PRIOR TO START UP.
5. GREASE TRAP MUST BE INSPECTED PRIOR TO BACKFILL BY WASTEWATER ENVIRONMENTAL DEPARTMENT.
6. A PLUMBING PERMIT IS REQUIRED FOR INSTALLATION.
7. GREASE TRAP SHALL BE NO SMALLER THAN A 50 GALLON PER MINUTE FLOW WITH 100 POUND GREASE CAPACITY (50/100).
8. USE AND SIZE TO BE APPROVED BY WASTEWATER ENVIRONMENTAL DEPARTMENT.

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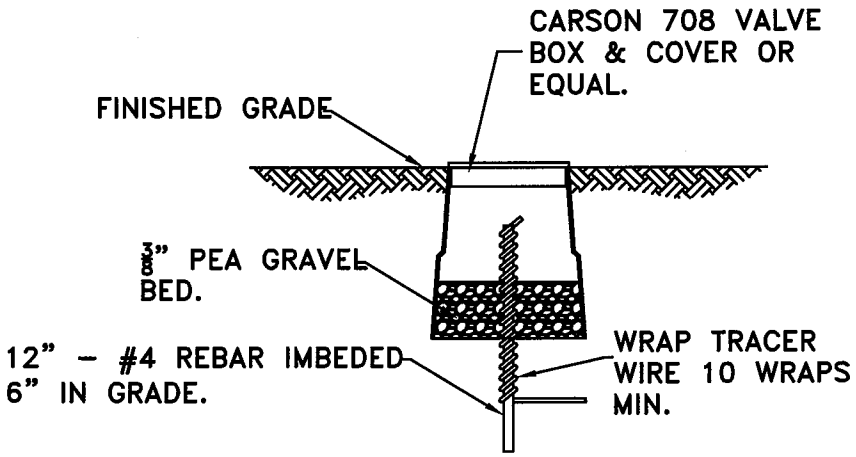
01/14/2014

CITY OF PEORIA
STANDARD DETAIL PE-551
TRACER WIRE TERMINATION

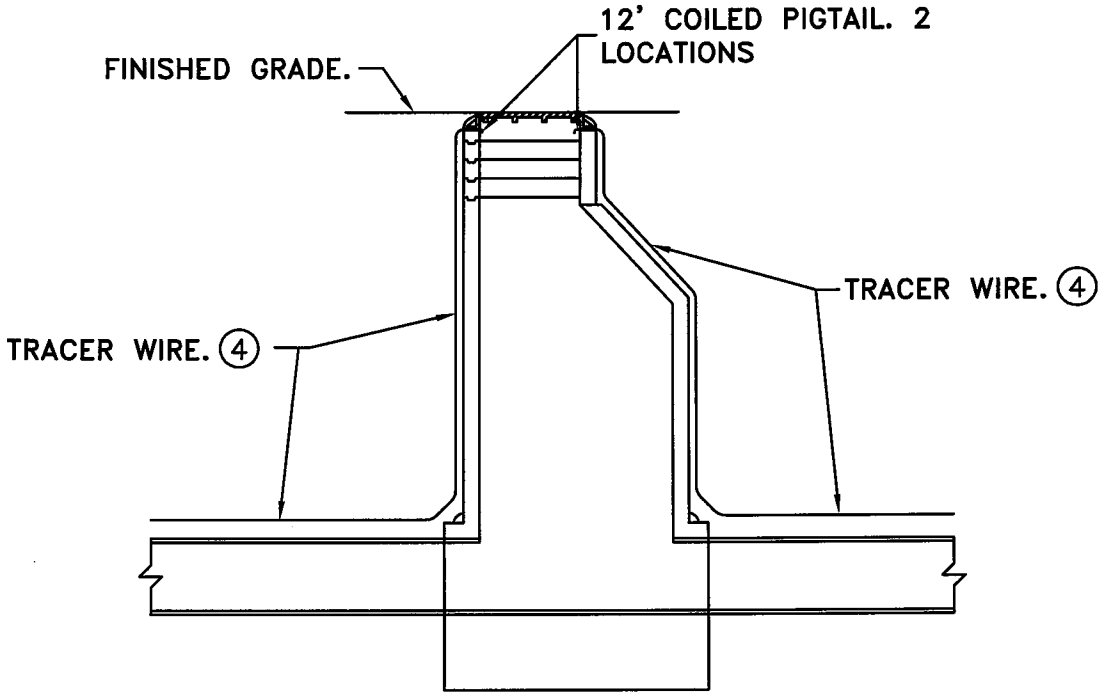
APPROVALS:

CITY ENGINEER — DATE 5/24/13

PUBLIC WORKS-UTILITIES DIRECTOR — DATE 05-20-2013



TRACER BOX DETAIL



TRACER FOR MANHOLE

NOTES:

1. LOCATE TRACER BOX IN GRADE CENTERED OVER THE PIPE, IMMEDIATELY BEHIND HEADWALL, MANHOLE IN GRADE OR AREA INLET.
2. LOCATE TRACER BOX IN GRADE IMMEDIATELY ADJACENT TO CATCH BASIN OR CURB INLET.
3. RUN TRACER WIRE WITHIIN 3" OF MANHOLE TOWER AND WRAP 12" MINIMUM OVER THE FINAL ADJUSTMENT RING.
4. TRACER WIRE MATERIALS AND INSTALLATION SHALL BE PER IDG SECTION 4–2.A.4g.

02/11/2013

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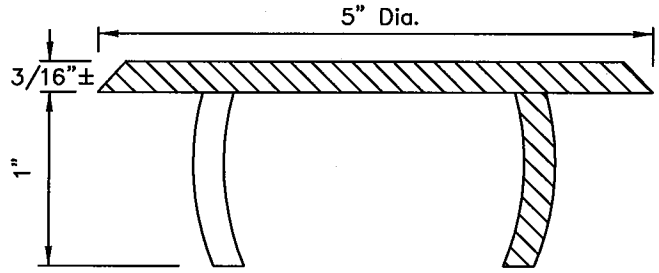
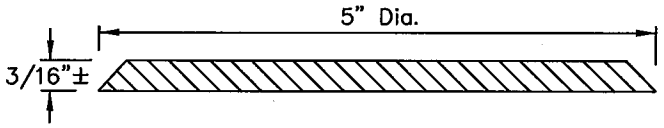
CITY OF PEORIA
STANDARD DETAIL PE-559-1
STORM DRAIN INLET MARKER

APPROVALS: David Mead 2/22/07
CITY ENGINEER DATE



TYPE "A:
TO BE INSTALLED IN WET CONCRETE
DURING CONSTRUCTION



TYPE "B"
TO BE INSTALLED WITH ADHESIVE
ON EXISTING STRUCTURES

NOTES

1. Material: Cast Aluminum
2. The Total Width Of Individual Letters To Be Such That Letters And Words Are Equally Spaced And Balanced.
3. Letters To Be 1/2" In Height. Type Of Letters To Be Submitted For Approval.

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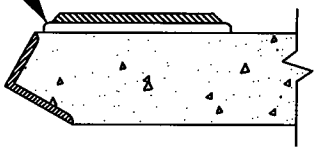
01/24/2007

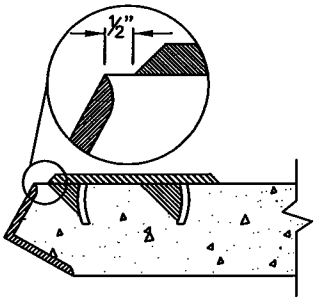
CITY OF PEORIA
STANDARD DETAIL PE-559-2
STORM DRAIN INLET MARKER ON CATCH BASIN/SCUPPER

APPROVALS: David Mack 2/22/07
CITY ENGINEER DATE

Dynamix #6125-1
Urethane Universal
Adhesive



TYPE "B"
TO BE INSTALLED WITH ADHESIVE
ON EXISTING STRUCTURES



TYPE "A"
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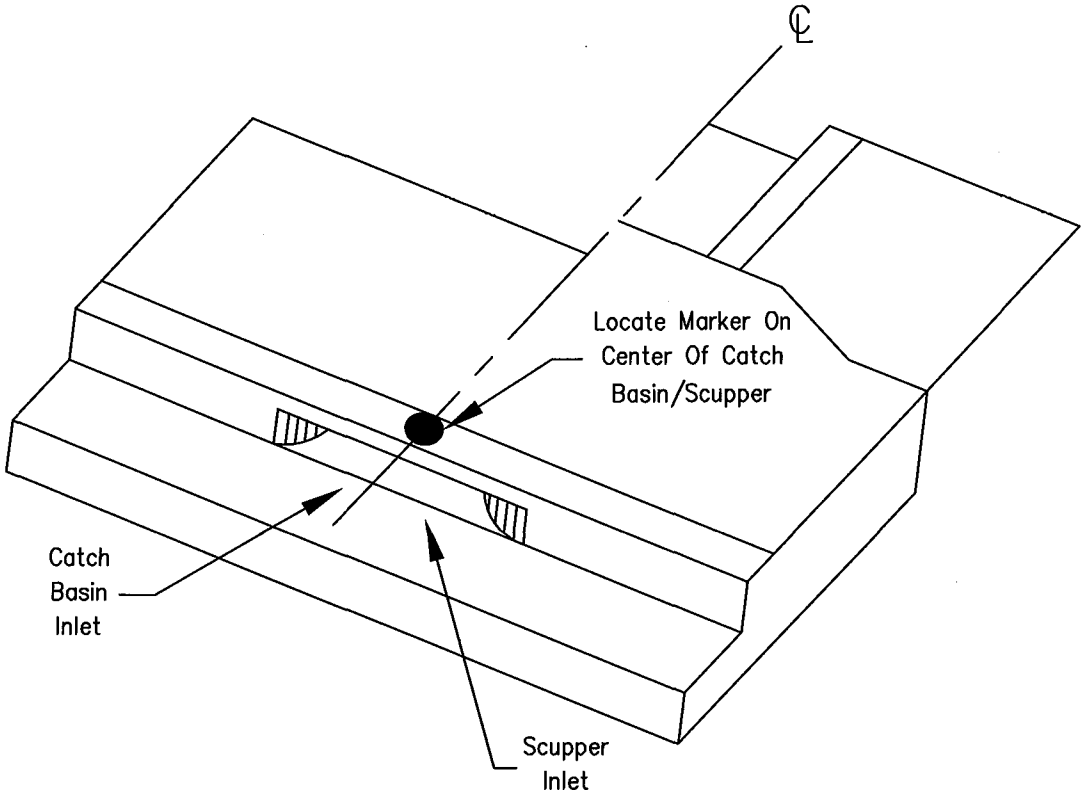
DURING CONSTRUCTION



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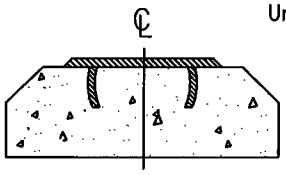
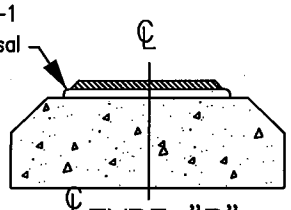
01/24/2007

CITY OF PEORIA
STANDARD DETAIL PE-559-3
STORM DRAIN INLET MARKER ON HEADWALL

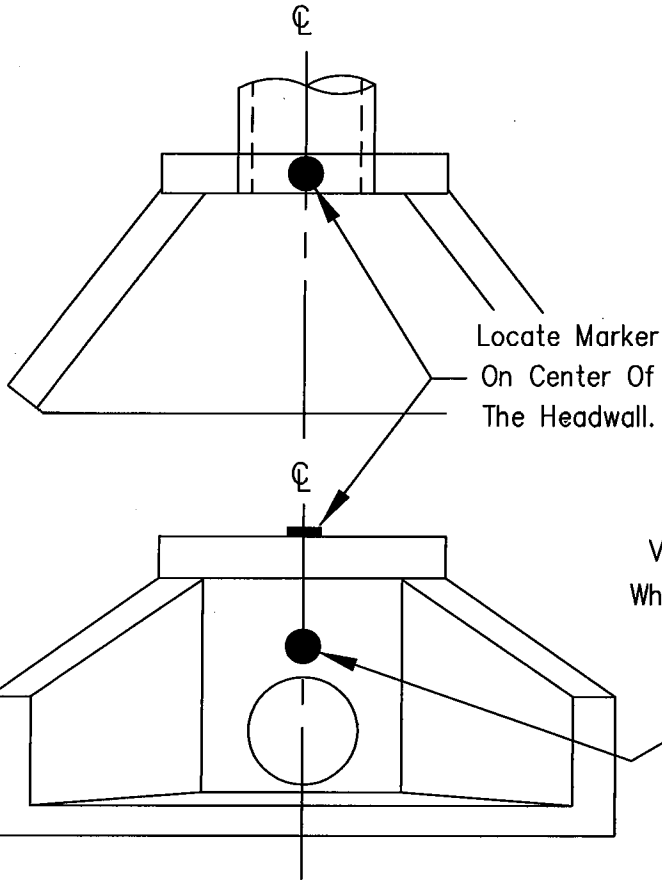
APPROVALS: _____ 2/22/07
CITY ENGINEER DATE

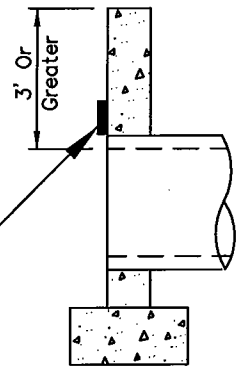


TYPE "A"
TO BE INSTALLED IN WET CONCRETE DURING CONSTRUCTION



TYPE "B"
TO BE INSTALLED WITH ADHESIVE ON EXISTING STRUCTURES





Locate Marker On the Vertical Face Of Headwall When Face Is 3' Or Greater. Center On Headwall.

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01/24/2007