

**WORK MEETING AGENDA OF THE
CITY COUNCIL OF LAYTON, UTAH**

PUBLIC NOTICE is hereby given that the City Council of Layton, Utah, will hold a public meeting in the Council Conference Room of the City Center Building, 437 North Wasatch Drive, Layton, Utah, commencing at **5:30 PM on September 15, 2022.**

AGENDA ITEMS:

1. Councilmember Report
2. Amendments to Layton City Municipal Code, Title 18 Land Use Development, Chapter 18.24 Streets, Section 010 Arrangement, Section 020 Widths, Section 040 Cul-De-Sacs, Section 050 Easements; Title 19 Zoning, Chapter 24 Condominium/Townhouse (C-TH) Zoning District, Section 080 Condominium/Townhouse Design Standards; Repeal Title 18 Land Use Development, Chapter 18.24 Streets Section 030 Alleys, and Title 18 Land Use Development, Chapter 18.50 Private Residential Subdivisions and Developments, Section 060 Street and Driveway Improvements to Establish Public and Private Street Standards in Layton City – Ordinance 22-21
3. Amendment – Development Guidelines and Design Standards – Ordinance 22-20
4. Staff Report
5. Mayor's Report

ADJOURN:

Notice is hereby given that:

- This meeting will also be live streamed via laytoncitylive.com and facebook.com/Laytoncity
- In the event of an absence of a full quorum, agenda items will be continued to the next regularly scheduled meeting.
- This meeting may involve the use of electronic communications for some of the members of this public body. The anchor location for the meeting shall be the Layton City Council Conference Room, 437 North Wasatch Drive, Layton City. Elected Officials at remote locations may be connected to the meeting electronically.
- By motion of the Layton City Council, pursuant to Title 52, Chapter 4 of the Utah Code, the City Council may vote to hold a closed meeting for any of the purposes identified in that chapter.

Date: _____

By: _____
Kimberly S Read, City Recorder

**LAYTON CITY COUNCIL WORK MEETING
AGENDA ITEM COVER SHEET**

Item Number: 1.

Subject:
Councilmember Report

Background:
N/A

Alternatives:
N/A

Recommendation:
N/A

**LAYTON CITY COUNCIL WORK MEETING
AGENDA ITEM COVER SHEET**

Item Number: 2.

Subject:

Amendments to Layton City Municipal Code, Title 18 Land Use Development, Chapter 18.24 Streets, Section 010 Arrangement, Section 020 Widths, Section 040 Cul-De-Sacs, Section 050 Easements; Title 19 Zoning, Chapter 24 Condominium/Townhouse (C-TH) Zoning District, Section 080 Condominium/Townhouse Design Standards; Repeal Title 18 Land Use Development, Chapter 18.24 Streets Section 030 Alleys, and Title 18 Land Use Development, Chapter 18.50 Private Residential Subdivisions and Developments, Section 060 Street and Driveway Improvements to Establish Public and Private Street Standards in Layton City – Ordinance 22-21

Background:

Private streets are currently allowed by Layton Municipal Code as a way to provide for flexibility in development and efficient use of land. Private streets can be helpful as a design option when developing land with slopes or land that is narrow or odd shaped. However, a number of issues have arisen related to the use of private streets. Over the last several years, the City has received multiple requests from residents and Home Owner Associations regarding private streets. The most common request relates to the City taking over ownership and maintenance of private roadways. Private roadways are typically not constructed to a public street standard and not eligible to be taken over by the City. The draft ordinance outlines and clarifies four types of private roadways. A Private Minor roadway, can be used as a cul-de-sac for 10 or fewer lots and is required to be constructed to the same standards as a public street. A Private Lane and Private Drive, allow for a maximum of 5 and 2 dwelling units, respectively; and a Private Alley, which is used for rear-loaded access for Planned Residential Unit Developments PRUD, townhome, and multi-family developments.

Another issue relates to gates being placed on private streets. The Municipal Code does not have existing standards for the placement of gates on private roadways. Additionally, existing developments typically are not designed with enough room to accommodate a gate and a turn-around. For safety and vehicular circulation, it is critical for a turnaround to be located in front of a private gate to allow a vehicle to fully turn around with a forward motion and not impede traffic onto a public right-of-way. The draft ordinance establishes regulations for the placement of gates and turnarounds on private roadways. The draft language would permit gates to be placed on private lanes and private drives. As described above, private lanes are allowed a maximum of 5 dwelling units and private drives are allowed a maximum of 2 dwelling units.

Related to the gate issue, is the issue of private streets providing connection between two public streets. The City has received applications for the use of private streets as an alternative to public streets in some developments as a way to reduce setbacks or increase the allowable density. The proposed ordinance provides clarity that private streets cannot be used in cases where the street is needed to provide connection between two public streets or where a second street access is needed for utility or public safety reasons.

The draft ordinance also increases the separation distance between townhomes that are rear-loaded. Currently the setback is based off the side of the Private Alley that is used. With the increase of townhome developments there have been issues where the foundation of the townhome units have undermined the roadway integrity, causing a need for the roadway to be replaced after the foundations have been installed. The draft ordinance also requires a rear-to-rear setback for townhomes of 30' which allows for a 26' Private Alley and additional 2' on either side of the unit. The additional 2' on either side is sufficient space to maintain the integrity of the roadways during the installation of the townhome foundations.

The final component of the draft amendment is to simplify the municipal code by consolidating regulations related to private streets into one location.

On September 1, 2022, the Council reviewed the proposed text amendment and continued the public hearing to September 15, 2022 to allow for additional time for the public and development community to review the proposed amendment.

Alternatives:

Alternatives are to: 1) Adopt Ordinance 22-21, amending Title 18 Land Use Development, Chapter 18.24 Streets, Section 010 Arrangement, Section 020 Widths, Section 040 Cul-De-Sacs, Section 050 Easements; Title 19 Zoning, Chapter 24 Condominium/Townhouse (C-TH) Zoning District, Section 080 Condominium/Townhouse Design Standards; repeal Title 18 Land Use Development, Chapter 18.24 Streets Section 030 Alleys, and Title 18 Land Use Development, Chapter 18.50 Private Residential Subdivisions and Developments, Section 060 Street and Driveway Improvements; 2) Adopt Ordinance 22-21 with modifications; or 3) Not adopt Ordinance 22-21 and deny the proposed amendments.

Recommendation:

On August 9, 2022 the Planning Commission voted unanimously to recommend the City Council adopt the proposed amendment to the private streets requirements as contained in Ordinance 22-21.

Staff supports the recommendation of the Planning Commission.

**LAYTON CITY COUNCIL WORK MEETING
AGENDA ITEM COVER SHEET**

Item Number: 3.

Subject:

Amendment – Development Guidelines and Design Standards – Ordinance 22-20

Background:

The Engineering Division currently maintains a set of Development Guidelines and Design Standards (hereinafter “Guidelines”) for the purpose of informing developers of the current guidelines and standards and to assist them in meeting those standards. Some of these guidelines and standards require updates or revisions. Section 19.01.240 of the Layton City Municipal Code allows for the City Engineer to draft, approve, adopt, interpret and amend the Guidelines from time to time as determined necessary. The Utah State Code requires that the Guidelines be adopted and amended by ordinance. The City Engineer and Staff have re-written the current Guidelines, as specified in the Attachment-Summary of 2022 Revisions.

Alternatives:

Alternatives are to: 1) Adopt Ordinance 22-20 amending the Development Guidelines and Design Standards; 2) Adopt Ordinance 22-20 with any additional amendments the Council deems appropriate; or 3) Not adopt Ordinance 22-20 and remand to Staff with directions.

Recommendation:

Staff recommends the Council adopt Ordinance 22-20 amending the Development Guidelines and Design Standards.

**LAYTON CITY COUNCIL WORK MEETING
AGENDA ITEM COVER SHEET**

Item Number: 4.

Subject:

Staff Report

Background:

Staff will update the Mayor and Council on miscellaneous projects.

Alternatives:

N/A

Recommendation:

N/A

**LAYTON CITY COUNCIL WORK MEETING
AGENDA ITEM COVER SHEET**

Item Number: 5.

Subject:
Mayor's Report

Background:
N/A

Alternatives:
N/A

Recommendation:
N/A

ADDITIONAL

PACKET

ATTACHMENTS

6B. Private Streets Text Amendment Ordinance 22-21

18.24.020 (Table 18-1)

Street Type	Right-of-Way Width	Minimum Asphalt Width ⁴	Use/Location
Arterial	100'	76'	Locations as identified in the master transportation plan
Minor Arterial	84'	60'	
Collector	66'	42'	
Residential Collector	62'	32'	Residential through street
Minor Collector	60'	36'	Commercial & industrial applications
Residential	58'	33'	Residential interior street
Minor	50'	28'	Loops, cul-de-sacs, and/or streets with 10 or fewer lots/units
Hillside Residential	39'	28'	Hillside development areas, as approved by City Eng.
Private Minor ⁵	50'	28'	Cul-de-sacs and/or streets with 10 or fewer lots/units
Private Lane ^{2, 5}	33'	28'	Access up to 5 dwelling units
Private Drive ^{1, 5, 6}	26'	20'	Access for up to 2 dwelling units setback at least 100' from street
Private Alley ^{2, 3, 5}	26'	26'	Rear loaded access for planned residential developments (PRUD), condominium/townhome & multi-family developments

18.24.020 (1) (c)

- c. Gates may be permitted on private roadways under the following criteria:
 - i. A gate shall only be permitted on a private lane and/or private drive.
 - ii. A gate may be located only on roadways and/or in developments that have no more than one connection to a public right-of-way.
 - iii. A vehicle turn-around shall be installed in front of the gate.
 - 1. The turn-around shall meet Engineering Development guidelines for a turnaround; and be approved by the City Engineer and Fire Chief.
Turnarounds shall allow for vehicles to enter the public right-of-way by forward motion only.
 - iv. All gates shall comply with the International Fire Code, Layton Municipal Code 16.04.010 Section 503.6, and all other applicable municipal code requirements.



18.24.020 (1)(a)(xiv) & (2)(c)

xiv. Private Minor Streets, Private Drives, and Private Lanes are intended for limited use and shall not be used to make connections between two or more public roads.

2. Private Minor Streets shall comply with the following criteria:
 - a. Private Street(s) are permitted within a development that has a minimum of three acres.
 - b. A Private Street shall be built to public street standards.
 - c. Private streets shall be limited to dead-end streets and/or cul-de-sacs.



18.24.50

A ~~f~~Front, side, and rear Public Utility and Drainage Easements (PU&DE) ~~are~~ is required on all lots/parcels. ~~Side easements shall be placed as directed by the City Engineer.~~ In circumstances where a City utility traverses a lot or parcel to be developed, the easement width shall be provided as required by the City Engineer. The front PU&DE may be waived for a parcel/lot within the MU-TOD zoning district under the following criteria:

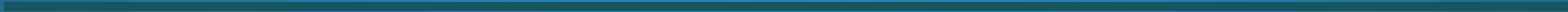
1. The necessary utility and drainage improvements can be accommodated on the subject property or within the adjacent public right-of-way and meet City engineering standards without the need for the front PU&DE.
2. The area between the building & public right-of-way is developed to match the hard surface of the adjacent sidewalk located within the public right-of-way or match the design/materials of the building. Asphalt shall not be permitted to be used as hard surface between the curb and the front of the building.



19.24.080 (1) (c) (vi)

- c. **Setbacks.** The minimum building setbacks on a site shall be as follows:
- i. Front Yard: 12' along local or 2-lane collector streets;
 - ii. Front Yard: 18' along three-lane collector or arterial streets;
 - iii. Corner lot side yard: Eight feet along a local street, and 12' along a collector or arterial street;
 - iv. Side yard/lot: Ten feet applicable to the side of a two story building from the property line of an adjacent single family use.
 - v. Rear or side yard/lot: A 20' setback shall apply to buildings that front or back to adjacent off-site single family residential uses.
 - vi. The minimum front to front **and rear to rear** separation of buildings shall be 30'.







Development Guidelines and Design Standards

September 15, 2022

City Council Work Meeting

Development Guidelines and Design Standards

- Engineering Division maintains Development Guidelines and Design Standards
 - Written standards
 - Standard Plans for Public Facility Construction
- Updates and revisions are necessary on occasion to meet current construction standards, regulations, and City needs.

Key Updates

- Secondary Water Systems
 - Added section for City owned secondary water systems
- Traffic Impact Study
 - Updates to threshold number for latest edition of ITE Trip Generation Manual
- Dedication Plat and Lot Line Adjustment
 - Five-foot rear lot line Public Utility and Drainage Easement
- Street Widths
 - Clarify width standards and definitions
- Culinary Water and Sanitary Sewer
 - Casing requirement for crossing freeways and highways
- Standard Plans
 - Updates to coordinate with written standards

Attachment – Summary of 2022 Revisions

Revisions to Development Guidelines and Design Standards and Standard Plans for Public Facilities Construction:

Development Guidelines and Design Standards:

Section 3 – Street Improvements

- 3.02 Street Widths
 - Removed Private Street and Split Roadway from Standard Street Sections Table
 - Added Private Minor, Private Lane, Private Drive, and Private Alley to Standard Street Sections Table
 - Amended B to reflect correct Code

Section 4 – Culinary Water Systems

- 4.04 Waterline Placement
 - Amended E to include requirement to install culinary water line within casing in freeways and highways
- 4.10 Water Service Connections
 - Amended E.1. distance to be 7 feet rather than 8 feet.
 - Amended I.3 table to remove increased laterals sizes for 1", 1 ½", and 2" meters

Section 5 – Sanitary Sewer Systems

- 5.4 Sanitary Sewer Line Placement
 - Added J to include requirement to install sewer within casing in freeways and highways
- 5.06 Manhole Size and Placement Determination
 - Amended F to include requirement for City Engineer approval for all drop manholes
 - Added F.3. to exclude bends within drop manholes

Section 6 – Storm Drainage Improvements

- 6.14 Low Impact Development
 - Amended D to match State requirements

Section 9 – Dedication Plat and Lot Line Adjustment

- 9.02 Dedication Plat Considerations
 - Amended A.12.a. to have five-foot rear lot line Public Utility and Drainage Easements

Section 10 – Street Lighting Standards

- 10.02 Street Light Locations
 - Amended A and B to include “generally”
 - Amended C.1 to include transformers
 - Amended C.2 to change the requirement for the developer to coordinate with Rocky Mountain Power to be the City’s responsibility
 - Amended table under D to remove SL-02A and SL02B which are no longer available

Section 11 Traffic Impact Study

- 11.04 Analysis Approach and Methods
 - Removed (b) from header in Table 1.1
 - Amended E.3 to include for collectors and/or arterial intersections
 - Amended F.1 and F.2 to include “Manual”
 - Amended Table 1.2 to update the Threshold numbers based on the latest edition of ITE’s Trip Generation Manual

Section 13 Irrigation System Improvements

- 13.02 Pressure Irrigation Systems
 - Amended A to clarify company names and include abbreviations and replaced Kays Creek Irrigation Company with Layton City.
 - Amended A.1 to clarify secondary water service areas as outlined in the Water Master Plan
 - Amended B.3 to use abbreviations rather than company names and removed Kays Creek Irrigation Company
 - Amended B.4 to clarify the required valve box lids
 - Amended B.5 to be purple coating rather than black
- 13.04 Flood Irrigation Systems
 - Added C to comply with State Code requiring the notification of irrigation companies.

Section 14 – Warranty and Utility System Acceptance

- 14.02 Warranty
 - Added paragraph to address completion requirements for warranty
 - Added sentence to paragraph 7 to clarify sidewalk completion required prior to placement into warranty

Section 15 Secondary Water Systems

- New section of Development Standard to regulate the City owned secondary water systems

Standard Plans for Public Facilities Construction:

Secondary Water Improvements – New details to address City’s maintenance of Kays Creek Irrigation pressurized system

- ST-SW-01 – 1” Secondary Plan
 - Secondary Water 1” metered service connection plan views
- ST-SW-02 – 1” Secondary Profile
 - Secondary Water 1” metered service connection profile view
- ST-SW-03 – 2” Secondary
 - Secondary Water 2” metered service connection HDPE meter box

Culinary Water Improvements

- ST-WL-01 – 1” Meter
 - Added notes to match lateral size to meter size a minimum of 2 feet outside the meter box both sides
- ST-WL-02 – Jumper
 - Corrected meter box size to 21” x 36”
- ST-WL-07 – 6”-8” Meter
 - Updated drawing name
 - Removed 4” meter setup
 - Updated fittings
- ST-WL-08 – 3”-4” Meter 4” Bypass
 - Updated drawing name
 - Updated pipe size to be 4”
 - Updated fittings
- ST-WL-18 – Fire Hydrant Installation
 - Added reference to Tracing Wire Installation standard drawing ST-WL-14

Storm Drain Improvements

- ST-SD-12 – Cleanout Box with Manhole Lid
 - Revised sand trap area

Street Lighting Improvements

- ST-LT-01 – SL-01 Tear Drop Fixture
 - Revised fixture to match new design
- ST-LT-02 – Standard Residential Pole and Fixture
 - Revised fixture to match new design
- ST-LT-02A and ST-SL-02B Options to SL-02 Standard Pole
 - Removed from standards, will no longer be available
- ST-LT-05 – Double Light Fluted Pole and Fixture
 - Revised fixture to match new design
- ST-LT-06 – Single Light Fluted Pole and Fixture (Stinger or Concrete Base)
 - Revised fixture to match new design
- ST-LT-06B – Single Light Fluted Pole and Fixture (Direct Bury)
 - New drawing for a direct bury SL-04
- ST-LT-08 – Street Lights Underground
 - Revised to match new standards
- ST-LT-10 – Single Street Light Installation
 - Revised to match new standards
- ST-LT-11 – Stringer Detail – SL-01
 - New drawing detailing stinger required for SL-01 poles
- ST-LT-12 – Stringer Detail – SL-04
 - New drawing detailing stringer required for SL-04 poles

Street Improvements

- ST-ST-04 – Street Section
 - Removed Private Street to Typical Subdivision table
 - Added Private Minor to Typical Subdivision table
- ST-ST-05 – Subdivision Street Cross Section
 - Removed Private Street cross section
 - Added Private Minor cross section

2022 Revisions to the Development Guidelines and Design Standards and Standard Plans for Public Facilities Construction:

3 STREET IMPROVEMENTS

(Refer to Title 18, chapter 18.24 entitled "STREETS" of the Layton Municipal Code.)

3.02 Street Widths

LAYTON CITY STANDARD STREET SECTIONS						
STREET TYPE (ALL MEASUREMENTS IN FEET)	ROW WIDTH	ASPHALT WIDTH	PARK STRIP WIDTH	SIDE WALK WIDTH	TBC TO TBC	COMMENTS
ARTERIAL	100	76	4.5	5	81	
MINOR ARTERIAL	84	60	4.5	5	65	
COLLECTOR	66	42	4.5	5	47	
MINOR COLLECTOR	60	36	4.5	5	41	
RESIDENTIAL COLLECTOR	62	32	7.5	5	37	TYPICAL THROUGH STREET FOR RESIDENTIAL DEVELOPMENT
RESIDENTIAL	58	28	7.5	5	33	TYPICAL INTERIOR STREET WITHIN A SUBDIVISION
MINOR	50	28	4.5	4	33	CUL-DE-SACS; LOOPS STREETS SERVING 10 LOTS OR LESS; SENSITIVE LANDS
HILLSIDE RESIDENTIAL	39	28		6	33	HILLSIDE DEVELOPMENT AREAS ONLY – AS APPROVED BY CITY ENGINEER
PRIVATE ~~MINOR STREET~~	~~50~~	28			33	~~*RIGHT OF WAY TO BE APPROVED BY CITY ENGINEER-LOOPS, CUL-DE-SACS, AND/OR STREET WITH 10 OR FEWER LOTS/UNITS~~
~~SPLIT ROADWAY~~	~~2 @ 23' EA~~	~~2 @ 18' EA~~			~~2 @ 23' EA~~	~~HILLSIDE DEVELOPMENT AREAS ONLY. AS APPROVED BY CITY ENGINEER~~
PRIVATE LANE	33'	28				ACCESS UP TO 5 DWELLING UNITS
PRIVATE DRIVE	26	20				ACCESS FOR UP TO 2 DWELLING UNITS SETBACK AT LEAST 100 FEET FROM STREET
PRIVATE ALLEY	26	26				REAR LOADED ACCESS FOR PLANNED RESIDENTIAL DEVELOPMENTS (PRUD), CONDOMINIUM/TOWNHOME & MULTI-FAMILY DEVELOPMENTS

- A. The asphalt on all public streets shall be bordered on both sides by two and one-half foot wide, 6-inch high back curb and gutter.
- B. For private street requirement – see Municipal Code 18.~~2450~~.

4 CULINARY WATER SYSTEMS

4.04 Water Line Placement

- E. The waterlines will not be installed at side lot or rear lot property lines. All lines will be installed within street right-of-ways. All culinary waterlines within UDOT freeways or highways shall be installed in steel casing from right-of-way to right-of-way.

4.10 Water Service Connections

- E. The tubing shall extend to the outside edge of the public utility easement, which is:
1. Typically ~~7~~8 feet past the sidewalk where a park strip is provided.
 2. Typically 11 feet past the sidewalk where the sidewalk abuts the curb & gutter.

I. Multi-family units and private residential subdivisions

3. The maximum flow allowed by meter size and the acceptable service sizes are shown in the table below:

Meter Size (inches)	Continuous Flow (gpm)	Acceptable Service Size (inches)
5/8	15	3/4
3/4	20	3/4
1	30	1 ~~or 1 1/2~~
1-1/2	75	1-1/2 ~~or 2~~
2	250	2 ~~or 3~~
3	500	3 or 4
4	1000	4 or 6
6	1600	6
8	2800	8

5 SANITARY SEWER SYSTEMS

5.04 Sanitary Sewer Line Placement

- J. Where a sewer line is to be constructed under a freeway or highway, the line shall be installed in steel casing from right-of-way to right-of-way.

5.06 Manhole size and placement determination.

- F. Drop manholes shall be installed where a step of 20 inches or more is designed in the sanitary sewer line as approved by the City Engineer. (A drop of less than 20 inches is allowed with a slide.)
1. Drop manholes shall be 5-foot diameter.
 2. All plumbing for drops shall be on the exterior of the manholes, with an additional manhole over the plumbing. The top of the pipe shall be cut-out to provide access.
 3. Bends within the drop manholes shall not be allowed.

6 STORM DRAINAGE IMPROVEMENTS

6.14 Low Impact Development (LID)

- D. Based on the information in the Storm Water Quality Report, it may be deemed technically infeasible to use on-site bioretention/infiltration/retention practices. If meeting the retention standards described above is infeasible, a rationale shall be provided for the use of alternative design criteria. The new or redevelopment project must document and quantify that infiltration, evapotranspiration, and rainwater harvesting have been used to the maximum extent feasible and that full employment of these controls are infeasible due to constraints. LID infeasibility may be due to one or more of the following conditions: high groundwater, drinking water source protection areas, soil conditions, slopes, accessibility, excessive cost, or other reasons. Technical infeasibilities will be related to depth of historical high groundwater, well protection zones, soil conditions, project boundaries, economic factors, or other reasons. When infiltration is deemed technically infeasible, BMPs shall be implemented to address water quality.

9 DEDICATION PLAT AND LOT LINE ADJUSTMENT

9.02 Dedication Plat Considerations

- A. Information to be Included
1. The name of the subdivision, in bold heading, at the top of the drawing (include PRUD if applicable).
 2. Section, Township and Range
 3. City and County name
 4. Signature blocks for the City Attorney, City Planning Commission, City Engineer, City Mayor, Recorder, and major utility companies, with easement shown on plat.
 5. Signature blocks for owner dedication with proper attest blocks
 6. Owner's dedication narrative
 7. Boundary description narrative
 - a. Shall include the point of beginning tied to a found Davis County section monument.
 - b. Shall have a tie to a second found Davis County monument for the establishment of the basis of bearing.
 8. Boundary description, as a drawing, matching the narrative.
 9. Total area contained within the boundary in acres and/or square feet.
 10. Dedication plat restrictions i.e. utility restrictions, setback restrictions, access restrictions, or others are required as part of development.
 11. Types and locations of all existing and proposed easements
 12. Public utility and drainage easements are required in all subdivisions. The minimum width of easements shall be:
 - a. On rear lot lines; ~~5~~ten feet on each side

- c. On side lot lines; a total of ten feet with not less than three feet on one side of the lot line and seven on the other.
- 13. Front, side, and rear easements are required on all lots. In circumstances where a City utility traverses a lot or parcel to be developed, the easement width shall be provided as required by the City Engineer with a minimum of 20 feet.
- 14. Slope easements shall be shown where required.
- 15. Buildable area must be shown on plat.

10 STREET LIGHTING STANDARDS

10.02 Street Light Locations

Prior to final approval of the proposed development, the City will inform the developer of the location for the street lights. The developer shall include a street lighting layout detail showing street light locations on all residential, commercial, and industrial development civil plans.

- A. Street lights shall generally be placed on alternating sides of the street at 300 feet average spacing for residential streets.
- B. Street lights shall generally be placed on alternating sides of the street at 250 feet average spacing for commercial, arterial and collector streets.
 - 1. Additionally, one street light shall be required at each road intersection and at each cul-de-sac. In cul-de-sacs, the light shall be placed on property lines away from end of cul-de-sac (snow storage area).
 - 2. Residential street lights will be placed at lot line boundaries to avoid unnecessary obstruction along the property frontage.
 - 3. A street light may be required to be placed at a location other than at the property boundary; for example, this may occur on a lot with an unusual long frontage.
 - 4. The City Engineer may require additional or fewer street lights based upon lighting conditions. Additional street lights may be required in locations where safety hazards or special traffic needs exist; examples include locations such as half block intersections, roadways with horizontals or vertical curves, parking lot entrances and exits, busy intersections, bridges and busy private or commercial driveways.
- C. The Developer shall be assessed a street lighting fee which will be used by Layton City to purchase and install the street light assemblies for the development. The lighting fees shall be paid to the City before the pre-construction meeting can be scheduled.
 - 1. The Developer shall incur all costs for trenching, meters, conduit, transformers, and subsurface electrical lines to power the street lighting system.
 - 2. If an existing transformer is not available, the City shall coordinate with Rocky Mountain Power for the installation of the transformer. Developer will be required to coordinate and pay for one to be installed through Rocky Mountain Power.

- D. Street lights will be installed within the new development by the City's contractor once all power has been provided to the site and typically prior to installation of sidewalk.

LAYTON CITY LIGHTING			Standard Drawing
Description	Detail	Type	
Arterial/Collector Streets & Commercial Areas			
Tear Drop Pole & Fixture	SL-01	LED	ST-LT-01
Single Light Fluted Pole & Fixture	SL-04	LED	ST-LT-06
Double Light Fluted Pole & Fixture	SL-03	LED	ST-LT-05
Residential Streets			
Standard Residential Pole & Fixture	SL-02	LED	ST-LT-02
~~Standard Residential (Optional)~~	~~SL-02A~~	~~LED~~	~~ST-LT-03~~
~~Standard Residential (Optional)~~	~~SL-02B~~	~~LED~~	~~ST-LT-04~~

11 TRAFFIC IMPACT STUDY

11.04 Analysis Approach and Methods

Table 1.1

Analysis Category	Development Characteristic	Study Horizons	Minimum Study Area ~~(b)~~
I	Small Development 100-499 peak hour trips	1. Opening Year	1. Site Access Drives 2. Adjacent signal controlled intersections within ~~1/4~~ 1/4 mile and/or major street intersections without signal control and driveways within 500 feet
II	Moderate Development 500-999 peak hour trips	1. Opening Year 2. 5 years after opening	1. Site Access Drives 2. All signal controlled intersections within 1/2 mile and/or major street intersections without signal control and major driveways within 1/2 mile
III	Large Development 1,000 - 1,500 peak hour trips	1. Opening Year 2. 5 years after opening	1. Site Access Drives 2. All signal controlled intersections within 1 mile and/or major street intersections without signal control and major driveways within 1 mile
IV	Regional	1. Opening Year	1. Site Access Drives

	Development >1,500 peak hour trips	2. 20 years after opening	2. All signal controlled intersections within 1 mile and/or major street intersections without signal control and major driveways within 1 mile
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E. Data Collection Requirements - All data is to be collected in accordance with the latest edition of the ITE *Manual of Transportation Engineering Studies* or as directed by the City Engineer if not specifically covered in the ITE Manual.

1. Turning movement counts shall be obtained for all existing cross-street intersections to be analyzed during the morning and afternoon peak periods. Available turning movement counts may be extrapolated a maximum of two years with concurrence of the City Engineer.
2. The current and projected daily traffic volumes shall be presented in the report.
3. Traffic accident data shall be obtained for the most current three-year period available for collector and/or arterial intersections.
4. Roadway geometric information shall be obtained including roadway width, number of lanes, turning lanes, vertical grade, location of nearby driveways, and lane configuration at intersections.
5. The location and type of traffic controls shall be identified.

F. Trip Generation

1. The latest edition of ITE's *Trip Generation Manual* shall be used for selecting trip generation rates.
2. Site traffic shall be generated for daily; AM and PM peak hour periods. Adjustments made for "passer-by" and "mixed-use" traffic volumes shall follow the methodology outlined in the latest edition of *Trip Generation Manual*. A "passer-by" traffic volume discount for commercial centers shall not exceed twenty five percent unless approved by the City Engineer or his representative.

G. Trip Distribution and Assignment

3. In addition, any nearby proposed "on-line" development projects shall be taken into consideration when forecasting future traffic volumes. The increase in traffic from the proposed "on-line" projects shall be compared to the increase in traffic by applying the annual growth rate. If modeling information is unavailable, the greatest traffic increase from either the "on-line" developments, the application of an annual growth rate, or a combination of an annual growth rate and "on-line" developments, shall be used to forecast the future traffic volumes.

I. Traffic Signal Needs - A traffic signal needs study shall be conducted for all arterial / arterial, arterial / collector and collector / collector intersections within the Study Area for the opening year. If the warrants are not met for the opening year, they

should be evaluated for a 5-year horizon for Categories II, ~~III~~ and IV.

Table 1.2

Threshold for Traffic Impact Study Project Sizes Generating 100 Peak Hour Trips		
Land Use	Unit	Threshold
<u>Residential</u>		
Single Family	DU	100 DU
Condominiums/Townhomes	DU	175 DU
Apartments	DU	~~175~~ 50 DU
Mobile Home	DU	~~150~~ 80 DU
R.V. Park	SPACE	~~300~~ 400 DU
Retirement Community	DU	250 DU
<u>Commercial</u>		
Walk-in Bank	1000 SF	5000 SF
Drive-in Bank	1000 SF	~~5000~~ 2000 SF
Shopping Center	1000 SF	~~7500~~ 6000 SF
Grocery Store	1000 SF	10000 SF
Convenience Store	1000 SF	~~2000~~ 1500 SF
Discount Store	1000 SF	~~17500~~ 16000 SF
Furniture Store	1000 SF	~~150000~~ 250000 SF
Lumber Store	1000 SF	~~40000~~ 30000 SF
Hardware / Paint Store	1000 SF	~~45000~~ 20000 SF
Auto Sales	1000 SF	40000 SF
Nursery Garden Center	ACRE	~~10~~ 3.5 ACRES
Vehicle Repair	1000 SF	~~30000~~ 35000 SF
Bowling Alley	LANE	~~22~~ 30 LANES
Gas Station	PUMP	~~76~~ SINGLE PUMPS
Health Club	1000 SF	24000 SF
High Quality Restaurant	1000 SF	13000 SF
Sit Down (High Turnover)	1000 SF	6000 SF
Fast Food (Drive through)	1000 SF	2000 SF
<u>Offices</u>		
Office	1000 SF	~~38000~~ 43000 SF
Office Park	1000 SF	60000 SF
Business Park	1000 SF	70000 SF
Research and Development	1000 SF	100000 SF
Government Office	1000 SF	~~27000~~ 9000 SF
Post Office	1000 SF	~~6750~~ 10000 SF
DU = Density Unit, SF = Square Feet		

13 IRRIGATION SYSTEM IMPROVEMENTS

13.02 Pressure irrigation systems

- A. In areas served by ~~Kays Creek Irrigation Company (KCIC)~~ Layton City (LC)), Weber Basin Water Conservancy District (WBWCD), or by Davis & Weber Counties Canal Company (DWCCC), the developer shall install the pressure irrigation system.
 - 1. The system shall be installed if water is available to the site or is in the future service area for secondary water as outlined in the Water Master Plan.
 - 2. The system shall be installed if water is apportioned to the land.
 - a. No water may be moved or transferred from the site without Layton City Council approval.
- B. Lines 8 inches and larger shall be installed in the asphalt adjacent to the lip of the curb on either side of the street to avoid crossing the centerline at street curves. Lines 6 inches and smaller shall be installed in the ~~7.5-foot~~ 7.5-foot park strip or in the asphalt adjacent to the lip of the curb as directed by the irrigation company. If the park-strip is 4.5 foot wide, the location of the lines will be determined by the City Engineer and Irrigation Company. The design shall be reviewed by the City Engineer and approved by the irrigation company.
 - 1. The City Engineer may direct the lines to be installed at depths or locations different than the irrigation company minimum standards.
 - 2. The irrigation company shall provide a written statement approving the drawings before any final submittal is presented.
 - 3. If the secondary water provider is ~~Davis and Weber Canal Company~~ DWCCC or ~~Kays Creek Irrigation Company~~, a copy of the signed application for service and proof of payment of a reasonable connection fee must be submitted for final approval in addition to approval of the drawings.
 - 4. Valve boxes shall have a ~~triangle~~ circular shape lid with "IRRIGATION" to distinguish from the circular culinary water valve lid.
 - 5. PVC pipes shall be purple in color and tracing wire shall be coated ~~black~~ purple to distinguish from the blue culinary water lines.

13.04 Flood irrigation systems

- A. The developer shall provide adequate conveyance for flood irrigation wastewater to pass around a developed subdivision.
 - 1. The conveyance may be either a pipe system or a dug channel. Submit a written approval for the relocation of the system.
 - 2. A pipe will be required if the system crosses any street or access way.
 - 3. The City Engineer and the local user shall approve the conveyance system.
- B. The developer will be required to install a pipe system to convey any supply or waste ditch that passes through the proposed subdivision.
 - 1. The pipe size shall be determined and approved by the local user and City Engineer. The pipe system shall meet all standards and specifications

defined for storm drain pipe systems.

2. The pipe system shall be installed either in the park strip area or behind the sidewalk if there are any diversion or control structures.

C. The developer shall provide the City with contact information for any flood irrigation system within 100 feet of the development.

- 2.1. The City shall provide written notification to the flood irrigation owners of the proposed development.

14 WARRANTY AND UTILITY SYSTEM ACCEPTANCE

14.02 Warranty

The start of the one-year warranty period for the culinary water system, sanitary sewer system, land drain system, storm drain system, lighting system, and street improvements will begin once the public works inspector notifies the Public Works Engineering Department all the construction has been completed including the 'punch list' items. The City Engineer will issue a letter to the Developer with the warranty start date. At this time, the escrow will be reduced to the 10 percent guarantee amount.

The developer is responsible for ALL maintenance of the warranty items throughout the warranty period, even though the systems may be in use and operating. Development warranty periods will not begin during the months of November, December, January, or February.

At the end of the one year warranty period, a final inspection will be completed and once all items on the final inspection punch list are completed a letter of FINAL SUBDIVISION ACCEPTANCE is issued by the City Engineer to the Developer. This is typically the same time that the escrow is released.

Punch lists shall be valid for 9060 days. Completion and construction of all punch list items shall be completed within 9060 days of the issuance of the punch list. Failure to complete the punch list items within the 9060 day timeframe may result in the escrow funds being used to complete the punch list items or a new punch list being issued for any existing or new items found to not be in a satisfactory condition.

The developer's subdivision contract allows for a maximum of 18 months to complete all work. The contract will begin the day the preconstruction meeting is held. Following the 18 month period (or sooner if the work is completed earlier) and if the work is completed and is in satisfactory condition, the one-year warranty period will begin. If the work is not complete, the subdivision will be "red-tagged", no building permits will be issued, and no escrow funds will be released. The developer will be given notice to complete the project or apply for a time extension.

The City Engineer will determine if an extension is allowable. Extensions maybe allowed due to weather or previously unknown site conditions. If no extension is given, the developer will be required to complete the work or the City will complete the work and use the funds in the escrow account to cover all financial encumbrances.

The developer will be responsible for the placement of all sidewalk within the development. The placement of the sidewalk may be delayed until the actual construction of a house OR prior to the end of the 18 month contract period whichever occurs first. The one year warranty period will not begin until all sidewalk is completed.

AsS-Constructed drawings - The developer is required to submit as-constructed drawings to the engineering department prior to entering the one-year warranty. The drawings shall show the location and size of all water service lines and meters, sanitary service lines, land drain lines,

15 SECONDARY WATER SYSTEMS

15.02 Secondary water system size determination

- A. The minimum secondary water line size is 6 inch for distribution in a residential subdivision.
 - 1. All subdivision secondary water lines shall be subject to the City Engineer's size requirements. The lines may be increased in size to accommodate future development. The size of the line is a function of the location of the system within the approved master plan.
 - 2. The minimum line size for dead-end systems (including cul-de-sacs) shall be 6 inch.

15.04 Secondary waterline placement

- A. The secondary waterline shall be typically placed in the asphalt 3 feet offset from centerline on the west or south side of the street.
- B. The secondary waterline shall be placed along the curve of a street to conform to the above alignment. The use of bends may be required if the curb radius is shorter than the allowed radius of the pipeline.
- C. The secondary waterline shall be installed with a minimum of 24 inches and a maximum of 48 inches of cover over the top of pipe unless prior approval is obtained from the City Engineer.
- D. The secondary waterline will not be installed at side lot or rear lot property lines. All lines will be installed within street right-of-ways.
- E. Secondary waterlines shall be extended to the boundary of the development.
- F. The minimum centerline radius of the secondary waterline shall be as follows:
 - 1. 6" through 12" - 205'
 - 2. 14" and 16" - 260'
- G. Air vacuum relief valves, permanent drain valves, and temporary drain valves shall be constructed at locations determined by the Engineer who designed the system and pre-approved by the City in writing, in accordance with the Standard Drawings. All lids shall be marked "Irrigation."

15.06 Isolation valve placement

- A. Isolation valves shall be placed at the entrance to all cul-de-sacs.
- B. Isolation valves shall be placed at all intersections on at least two branches of a "T" intersection and three branches of a 4-way intersection. These valves shall be installed in the intersections within the asphalt.
 - 1. An additional valve will be required if the sum of the pipelines on the third or fourth branch exceeds 1,000 feet.
 - 2. An additional valve will be required if the pipeline(s) beyond the branch may continue in service when the adjacent valves are shutdown.
- C. Isolation valves shall be installed a minimum of 40 feet of the upstream and downstream ends of an augured or trenched casing unless prior approval is granted by the City Engineer. An exception for placement within 20 feet of the casing may be granted if one length of joint restraint pipe is installed prior to the thrust block.

15.08 Secondary water service connections

- A. All residential building lots shall have a one inch secondary water lateral installed. Double services shall be installed wherever possible and shall be a 1.5" from the mainline connection to the separate meters.
 - 1. The complete service connection includes the compression fittings, saddles, PE 3408 CTS ASTM D-2737 SDR-9 flexible pipe (purple in color), "K" plastic pitsetter, 21"

diameter x 30" deep corrugated meter enclosure, control valve box, and 1" ball valve.

- B. The secondary water meters shall be installed at the lot line. The meter enclosure shall be set so that the elevation of the top of the box is equal to that of the top back of curb or sidewalk.
- C. One (1) inch meters shall be MASTER METER SONATA 5G. One and one half (1.5") inch and larger meters shall be MASTER METER OCTAVE. No "Or equal" products shall be allowed.
- D. Each meter shall be fitted with an AMI transmitter with integral connection. The transmitter shall be mounted through the meter enclosure lid in a 1.75" diameter hole.
- E. The control valve boxes shall be installed a minimum of 24 inches and a maximum of 60 inches from the property line. The box shall be set so that the elevation of the top of the box is equal to that of the top back of curb or sidewalk.
- F. The valve boxes shall be marked "Sprinkler" or "Irrigation" and shall be 14" x 19" x 12" purple Carson or equal as pre-approved by the City.
- G. The ball valves shall be WATTS, Model #B-6080 or equal as pre-approved by the City.
- H. The tubing shall extend to the outside edge of the public utility and drainage easement, which is:
 - 1. Typically 7 feet past the sidewalk where a park strip is provided.
 - 2. Typically 11 feet past the sidewalk where the sidewalk abuts the curb & gutter.
- I. All residential meters shall be placed between the curb & gutter and sidewalk if a park strip is provided.
- J. All residential meters shall be placed 18"-24" behind the sidewalk where it abuts the curb.
- K. Multi-family units and private residential subdivisions
 - 1. Multi-family and private residential subdivisions will require a master meter.

15.10 Pipeline materials, construction, and testing

A. Materials

- 1. All secondary waterlines, between 6 inches and 12 inches in diameter shall be C-900 DR14 PVC pipe. All pipe shall be purple in color.
- 2. All secondary waterlines, 14 inches in diameter or larger shall be HDPE.
- 3. All gate valves 6 inches through 12 inches shall be non-rising bronze stem, resilient seat valves, ductile iron bodies, manufactured to equal or exceed all applicable AWWA standards of C-509 latest revision and all specific requirements outlined in the technical specifications. All valve body assembly bolts shall be stainless steel. All valves 14 inches and larger shall be butterfly valves of the short body type, cast iron body, cast or ductile iron disc, Type 304 stainless steel shafts, Buna-N or EPDM rubber seat bonded or molded in body only, and stainless steel seating surface.
- 4. "MEGA-LUG" joint restraints or pre-approved acceptable equal shall be used on all pipeline loop construction. All joint restraints shall use T-bolts and nuts wrapped with a three-part wax tape coating system to prevent corrosion or pre-approved acceptable equal.
 - a. Wax tape material shall be manufactured in accordance with the following requirements:
 - 1. The wax tape coating system shall be three-part, cold-applied, consisting of primer, wax tape and tape outerwrap in accordance with AWWA C217.
 - 2. The wax tape coating system is for coating all buried pipe appurtenances including but not limited to valves, fittings, and bolts.
- 5. "MEGA-LUG" joint restraints or pre-approved acceptable equal shall be used on

all waterline connections and fittings where C-900 DR PVC pipe is installed. All joint restraints shall use T-bolts and nuts coated with Fluoropolymer Star-Blue corrosion preventer or pre-approved acceptable equal.

6. Where flange kits or bolt packs are installed, all flange kits or bolt packs shall use bolts and nuts coated with Xylan 1424 series fastener class coating for corrosion prevention or pre-approved acceptable equal.
7. All secondary waterlines shall have a minimum 12 ga. copper locating wire installed over the pipe. The locating wire shall have purple insulation rated for direct burial and be attached to the top of the waterline and shall be terminated and accessible at all valve boxes and air/vac structures.
 - a. All tracing wire shall be tested for continuity in the presence of the Public Works Inspector prior to asphalt placement. Any tracing wire found not to be continuous after testing shall be repaired or replaced by the contractor prior to asphalt placement.
8. Direct tapping of C-900 DR14 PVC pipe is not permitted.
 - a. Service taps up to 2" in size shall be made through the use of service saddles. All service saddles shall be Romac style 202NS or pre-approved acceptable equal.
 - b. For taps larger than 2", tapping sleeves shall be used. The sleeve shall be designed for use on C-900 DR14 PVC pipe. Taps are allowed up to size-on-size.
 - c. For taps to HDPE, acceptable parts shall be approved by City Engineer prior to construction.

B. Construction

1. All construction work involving the installation of the secondary irrigation system must be observed by the Public Works Inspector. It shall be the responsibility of the DEVELOPER to ensure that these observations take place where and when required. Failure to have the system installation observed before backfilling occurs will result in requiring the developer to uncover the entire system again at the developer's expense. Layton City will not allow any connections to their existing systems be made unless the subdivision system installation has been observed and approved by the Public Works Inspector.
 - a. Points of required observation include:
 1. Pipe installation, including backfilling;
 2. Services, including connections to main line and meter installation;
 3. Valves;
 4. Drains;
 5. Pressure Reducing Stations (if required);
 6. Thrust Blocks;
 7. Connection to existing lines; and
 8. Proper installation of detectable locating wire.
2. The secondary waterline pipe shall be bedded in gravel where the sub-grade material is wet and/or the material is unstable.
3. All fittings shall have an appropriate thrust block installed.
4. At the connection point to the main, there shall be a minimum separation of 15 feet between lines 6 inches and greater; and 18-inches between lateral pipe.
5. Construction of waterline pipe shall follow manufacturer's installation procedures or:
 - a. PVC pipe shall follow ASTM D2774 and AWWA M23 standards
 - b. HDPE pipe shall follow AWWA M55 standards

C. Testing – All tests shall be witnessed by the Public Works Inspector

1. At the discretion of the City, density testing may be required. All in-place density testing shall be coordinated and paid for by the developer. Any tests failing to meet 95% of modified proctor or the standards of the City will be retested at the contractor's expense.
2. The line shall be slowly filled with water, venting off all air. All mainline valves shall be in the fully open position during the test. The line shall be pressurized to a minimum of 200 pounds per square inch. This pressure shall remain steady for a minimum of 2 hours.
3. If the cleaning practices during installation are questionable, the City may require the developer to flush all lines after the pressure test. Flushing shall be accomplished through the end of the line blow-offs or drains.

15.12 Special Requirements

A. Steel Casing Construction

1. ASTM A53, Grade B steel pipe for jacking operations, minimum wall thickness of 0.375 inch, minimum yield strength of 42,000 psi. Use a casing with a diameter equal to the outside bell diameter of the pipe plus a minimum 4 inches.
2. Fillet weld joints continuous around casing and reinforce joints to withstand jacking operations.
3. Use casing spacers CCI Pipeline Systems Model CSS or CSC or acceptable equal to center pipe within casing. Minimum of three spacers per length of pipe with a maximum of 7 feet between spacers.
4. Install neoprene rubber end seal with stainless steel bands CCI Pipeline Systems Model ESC or ESW as applicable or acceptable equal at each end of casing.
5. Secondary waterline pipe within casing shall be manufactured locking joint, internal or external restraint, or manufactured bell restraint pipe.

- B. There shall be no physical cross connections between the secondary distribution system and pipes, pumps, or tanks that may contain culinary water.

SECONDARY WATER DRAWINGS INDEX

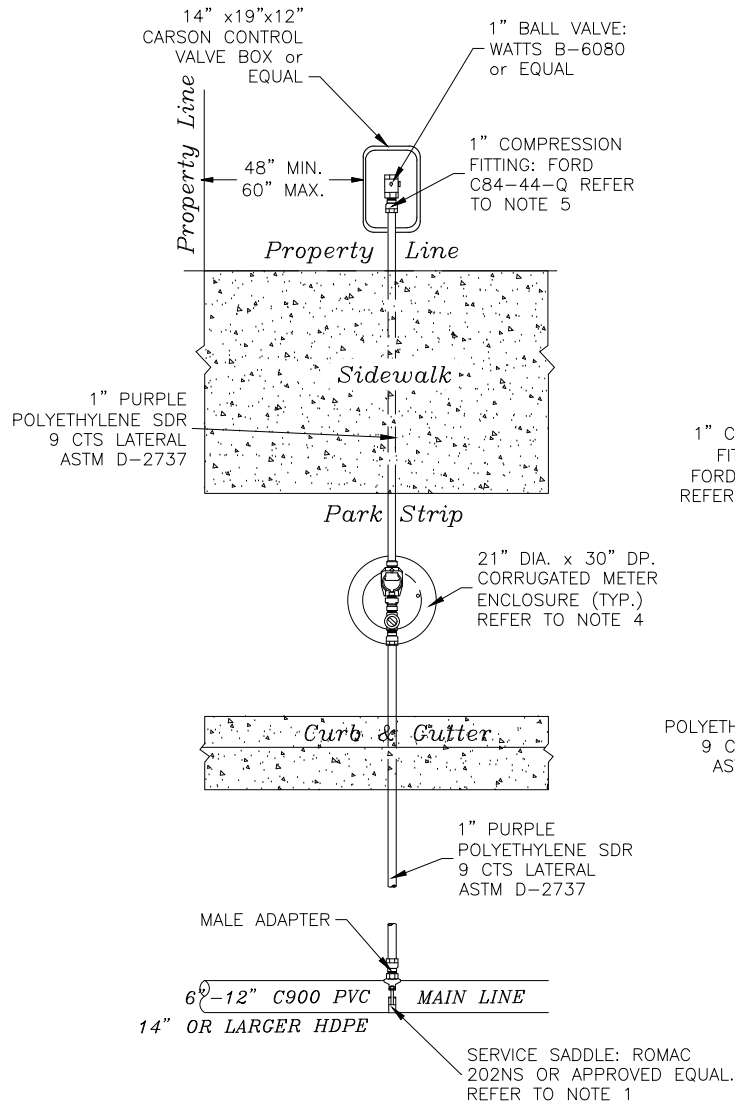
DETAIL NAME	ABBREV.	PAGE #
Secondary Water 1" Service Connection – Plan Views	1" SECONDARY - PLAN	ST-SW-01
Secondary Water 1" Service Connection – Profile View	1" SECONDARY - PROFILE	ST-SW-02
HDPE Meter Box for 2" Secondary Service	2" SECONDARY	ST-SW-03

SECONDARY WATER 1" SERVICE CONNECTION PLAN VIEWS

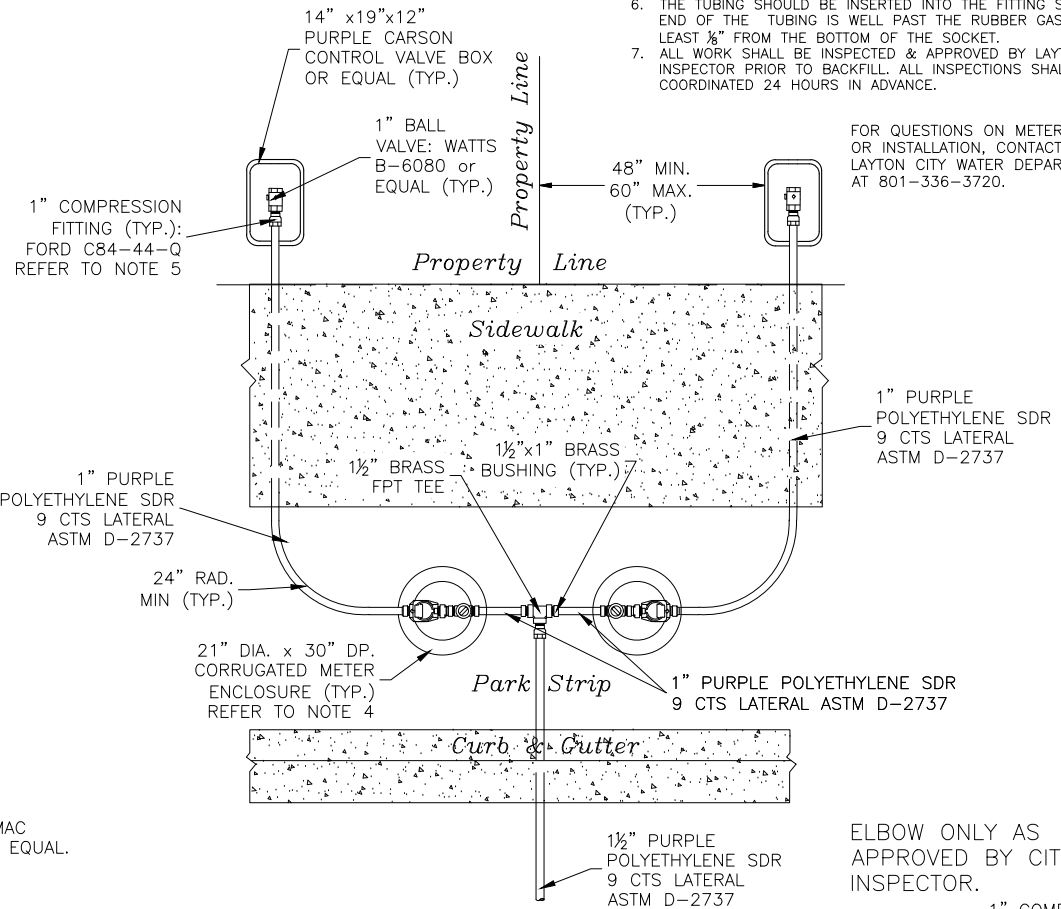
NOTES

1. EQUIVALENT DOUBLE STRAP SADDLES ALLOWED WITH CITY APPROVAL. CONSULT CITY ENGINEER FOR MAINLINE PIPE SIZES GREATER THAN 12" OR FOR MAINLINE PIPE MATERIAL OTHER THAN C900 PVC. HOT TAPPING NOT ALLOWED.
2. METER & ENCLOSURE SHALL BE LOCATED BEHIND CURB WITHIN STREET R.O.W. OR PUBLIC UTILITY EASEMENT IF NO CURB OR GUTTER EXISTS.
3. VALVE & METER ENCLOSURE LIDS SHALL BE STAMPED "IRRIGATION".
4. ENSURE VALVE CONTROL NUT CAN BE SERVICED BY WRENCH WHEN POSITIONING UNDER ENCLOSURE LID.
5. ALL COMPRESSION-TYPE CONNECTIONS REQUIRE STAINLESS STEEL INSERT STIFFENERS.
6. THE TUBING SHOULD BE INSERTED INTO THE FITTING SO THAT THE END OF THE TUBING IS WELL PAST THE RUBBER GASKET AND AT LEAST 1/8" FROM THE BOTTOM OF THE SOCKET.
7. ALL WORK SHALL BE INSPECTED & APPROVED BY LAYTON CITY INSPECTOR PRIOR TO BACKFILL. ALL INSPECTIONS SHALL BE COORDINATED 24 HOURS IN ADVANCE.

FOR QUESTIONS ON METER SET-UP OR INSTALLATION, CONTACT THE LAYTON CITY WATER DEPARTMENT AT 801-336-3720.



SINGLE SERVICE



ELBOW ONLY AS APPROVED BY CITY INSPECTOR.

1" COMPRESSION FITTINGS: MUELLER H-15428 or FORD C84-44-Q. REFER TO NOTE 6
1" 90° BRASS ELBOW WHERE RADIUS <24" DOUBLE SWEEP

1" THREADED BRASS NIPPLE

DOUBLE SERVICE

SERVICE SADDLE: ROMAC 202NS OR APPROVED EQUAL. REFER TO NOTE 1

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REVISIONS

**Layton
City**

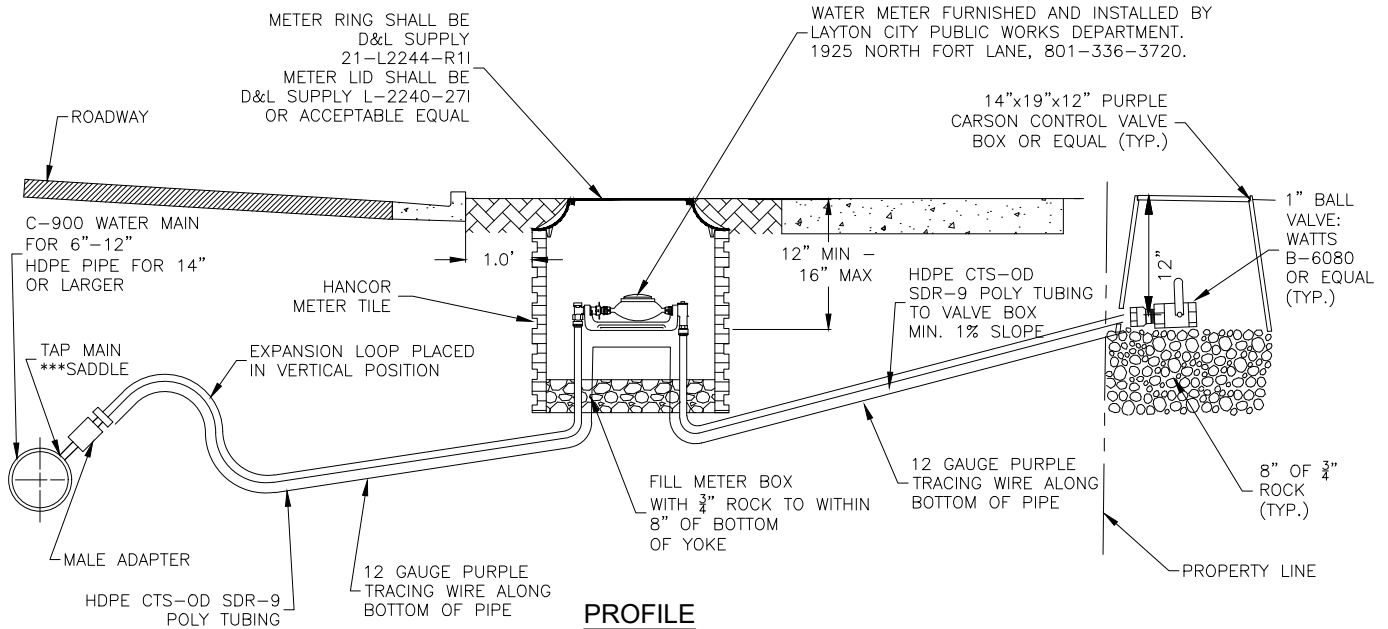
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1" SECONDARY - PLAN

ST-SW-01

SECONDARY WATER 1" SERVICE CONNECTION PROFILE VIEW

FOR QUESTIONS ON METER SET-UP
OR INSTALLATION, CONTACT THE
LAYTON CITY WATER DEPARTMENT
AT 801-336-3720.



NOTES

- EQUIVALENT DOUBLE STRAP SADDLES ALLOWED WITH CITY APPROVAL. CONSULT CITY ENGINEER FOR MAINLINE PIPE SIZES GREATER THAN 12" OR FOR MAINLINE PIPE MATERIAL OTHER THAN C900 PVC. HOT TAPPING NOT ALLOWED.
- METER & ENCLOSURE SHALL BE LOCATED BEHIND CURB WITHIN STREET R.O.W. OR PUBLIC UTILITY EASEMENT IF NO CURB OR GUTTER EXISTS.
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- ENSURE VALVE CONTROL NUT CAN BE SERVICED BY WRENCH WHEN POSITIONING UNDER ENCLOSURE LID.
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- THE TUBING SHOULD BE INSERTED INTO THE FITTING SO THAT THE END OF THE TUBING IS WELL PAST THE RUBBER GASKET AND AT LEAST 1/8" FROM THE BOTTOM OF THE SOCKET.
- ALL WORK SHALL BE INSPECTED & APPROVED BY LAYTON CITY INSPECTOR PRIOR TO BACKFILL. ALL INSPECTIONS SHALL BE COORDINATED 24 HOURS IN ADVANCE.
- ALL IRRIGATION METERS SHALL BE PLACED 18" TO 24" BEHIND THE SIDEWALK IF THE SIDEWALK ABUTS THE CURB & GUTTER.
- PURPLE TRACING WIRE SHALL HAVE 3 FEET OF SLACK WITHIN THE METER BOX.
- PURPLE TRACING WIRE SHALL TERMINATE INSIDE THE VALVE BOX.

METER ASSEMBLY SHALL INCLUDE:

1	FORD 1IN ANGLE KEY VALVE (AV94-444W-Q-NL)
1	FORD 1IN METER YOKE x FIPT 90 DEGREE BEND (L91-44-NL)
1	FORD 1IN COUPLING MIP/CTS GJ (C84-44-Q-NL)
2	#54 1 SS INSERT F/CTS PE
1	FORD 1IN EXPANSION CONNECTION (EC-4-NL)
1	FORD 1IN METER YOKE BAR (Y504)
1	21x30 HANCOR METER PIT
1	D & L SUPPLY RING (21-L2244-R11) AND COVER (L-2240-271)

METER BOX SIZE

1" SERVICE (21" X 30" BOX)

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NONE

DATE
6/22

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**Layton
City**

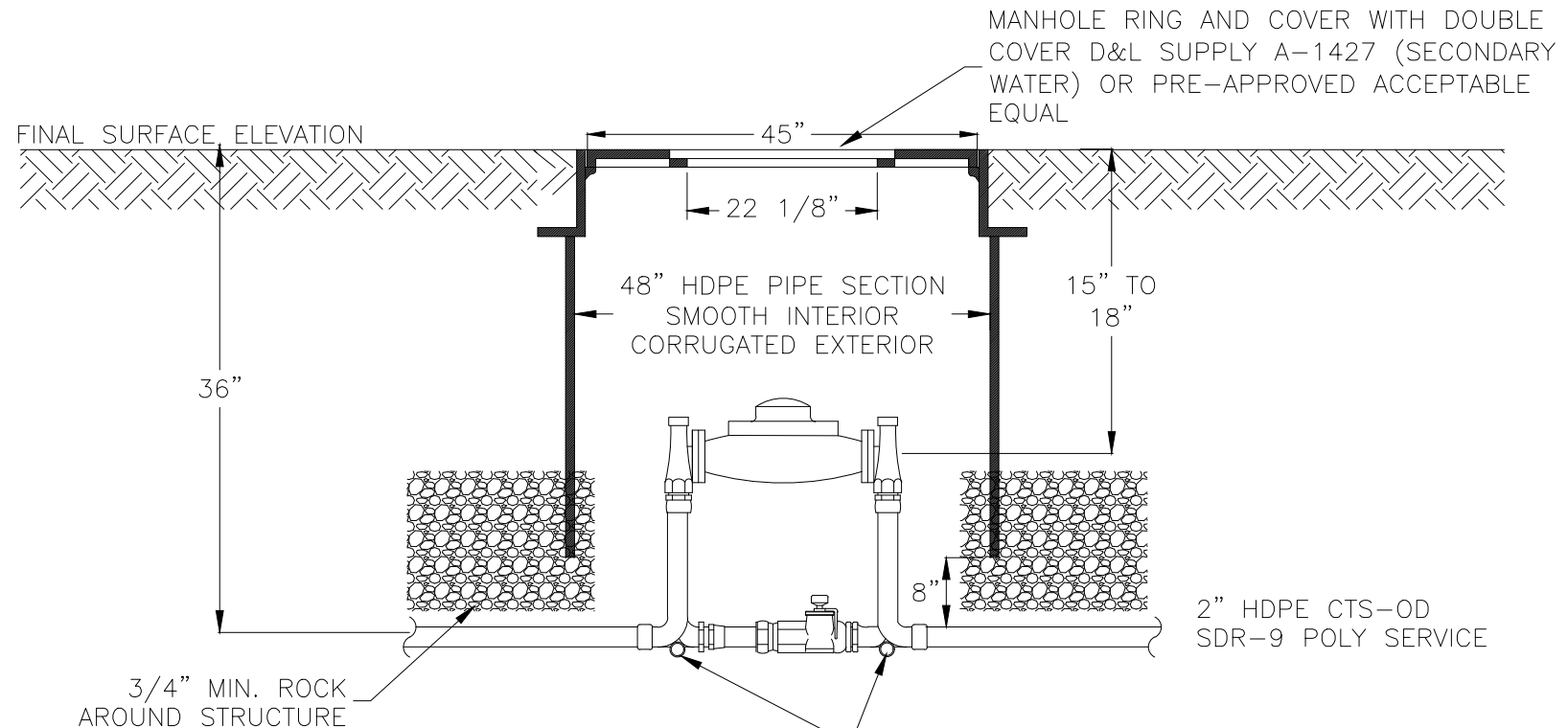
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1" SECONDARY - PROFILE

ST-SW-02

*** ACCEPTABLE SADDLES
ROMAC 202NS
OR LAYTON CITY PRE-APPROVED
ACCEPTABLE EQUAL

HDPE METER BOX FOR 2" SECONDARY WATER SERVICE



NOTE: TRACING WIRE SHALL
TERMINATE IN METER BOX.

METER BOX SHALL BE LOCATED
IN LANDSCAPED AREA

PROVIDE BRASS NIPPLE
BRACING PIPE IN EYELETS.
USE 3/4" BRASS NIPPLE FOR
1-1/2" SERVICE AND 1" BRASS
NIPPLE FOR 2" SERVICE
MINIMUM 18" LENGTH.

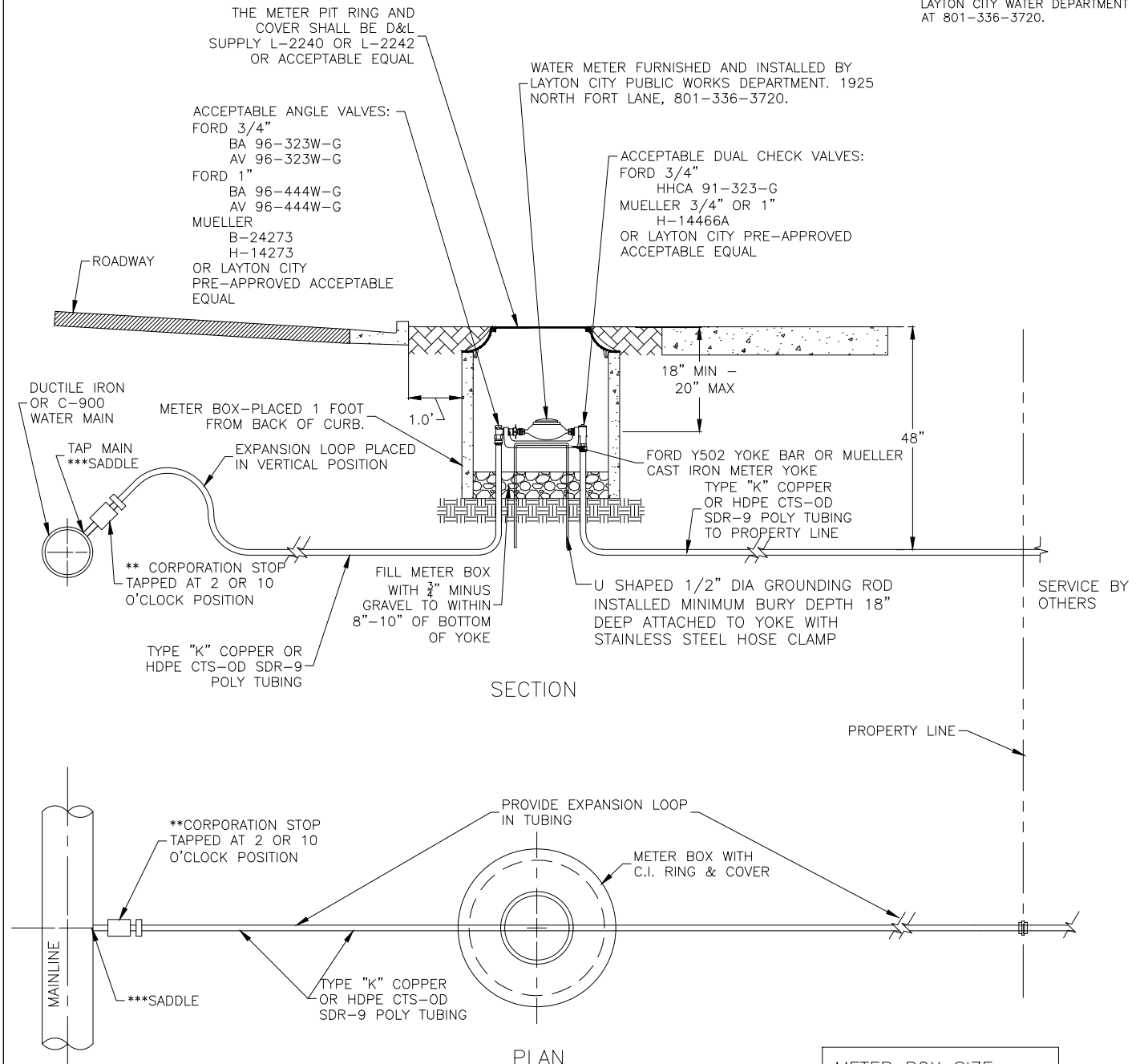
FORD CUSTOM SETTER
2" - VFH77-18"x17"

METER SHALL BE MASTER METER OCTAVE
PROVIDED BY LAYTON CITY PUBLIC WORKS
WATER DEPARTMENT: 1925 NORTH FORT LANE;
801-336-3720

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SCALE NONE		2" SECONDARY
DATE 6/22		ST-SW-03
REVISIONS		

3/4" & 1" WATER SERVICE CONNECTION

FOR QUESTIONS ON METER SET-UP
OR INSTALLATION, CONTACT THE
LAYTON CITY WATER DEPARTMENT
AT 801-336-3720.



NOTES: ALL RESIDENTIAL METERS SHALL BE PLACED 1.0' BEHIND THE SIDEWALK IF THE SIDEWALK ABUTS THE CURB & GUTTER.

TRACING WIRE SHALL TERMINATE INSIDE METER BOX AND BE CONNECTED TO GROUND ROD.

LATERAL SIZE SHALL MATCH METER SIZE FROM WATER MAIN TO A MINIMUM OF TWO FEET ON CUSTOMER SIDE OF THE METER BOX

METER BOX SIZE

3/4" SERVICE (21" X 36" BOX)
1" SERVICE (21" X 36" BOX)

- * ACCEPTABLE METER BOX MATERIAL:
PRECAST CONCRETE OR CORRUGATED POLYETHYLENE PIPE CONFORMING TO AASHTO M294 TYPE S, WITH A SMOOTH INTERIOR LINER.
- ** ACCEPTABLE CORPORATION STOPS
FORD CORPORATION STOPS
FB-1000 F-1000
MUELLER CORPORATION STOPS
B-25008 H-15008
OR LAYTON CITY PRE-APPROVED ACCEPTABLE EQUAL
- *** ACCEPTABLE SADDLES
ROMAC 202NS
OR LAYTON CITY PRE-APPROVED ACCEPTABLE EQUAL

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REVISIONS
6/22

**Layton
City**

STANDARD
DRAWING

1" METER

ST-WL-01

JUMPER SPECIFICATIONS FOR 3/4" OR 1" METER

THE METER PIT RING AND COVER
SHALL BE D&L SUPPLY L-2240 OR
L-2242 OR ACCEPTABLE EQUAL

- A - FORD OR MUELLER ANGLE VALVE*
- B - EXPANDER FOR 3/4" YOKE
- C - 3/4" OR 1" GALV. PIPE W/
THREADED ENDS
(10.5 INCHES LONG)
- D - FORD OR MUELLER DUAL CHECK
VALVE**

*ACCEPTABLE ANGLE VALVES

FORD 3/4"

BA 96-323W-G

AV 96-323W-G

FORD 1"

BA 96-444W-G

AV 96-444W-G

MUELLER

B-24273

H-14273

OR LAYTON CITY PRE-APPROVED
ACCEPTABLE EQUAL

**ACCEPTABLE DUAL CHECK VALVES

FORD 3/4"

HHCA 91-323-G

FORD 1"

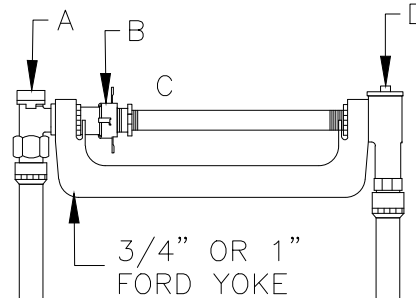
HHCA 91-444-G

MUELLER 3/4" OR 1"

H-14466A

OR LAYTON CITY PRE-APPROVED
ACCEPTABLE EQUAL

18" MIN -
20" MAX



FOR QUESTIONS ON METER SET-UP
OR INSTALLATION, CONTACT THE
LAYTON CITY WATER DEPARTMENT AT
801-336-3720.

METER BOX SIZE

3/4" SERVICE (21" X 36" BOX)
1" SERVICE (21" X 36" BOX)

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NONE

DATE
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REVISIONS
5/22

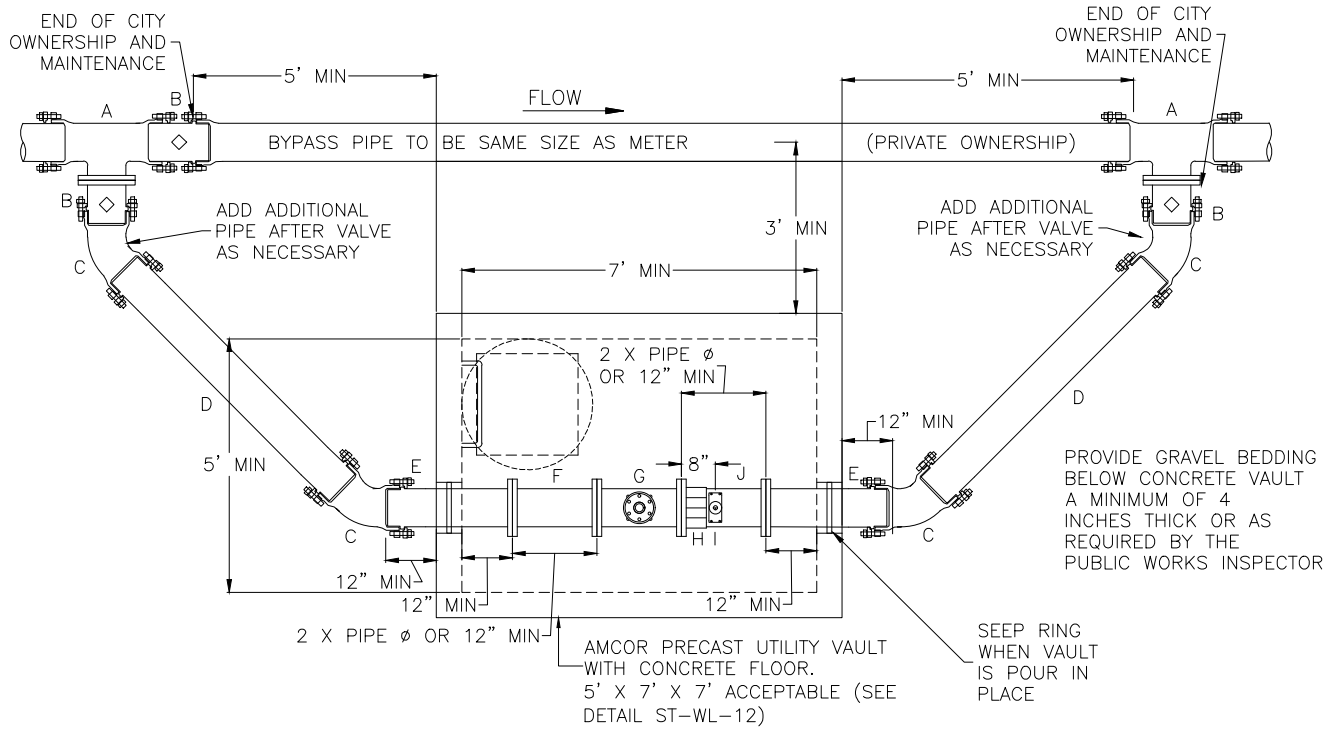
**Layton
City**

STANDARD
DRAWING
JUMPER

ST-WL-02

ACCEPTABLE METER BOX MATERIAL:
PRECAST CONCRETE OR CORRUGATED
POLYETHYLENE PIPE CONFORMING TO
AASHTO M294 TYPE S, WITH A
SMOOTH INTERIOR LINER.

6" or 8" Octave Meter Installation



Water Meter Size			
PART	6"	8"	QUANTITY
A	6" X 6" X 6" MJ X FLG TEE	8" X 8" X 8" MJ X FLG TEE	2
B	6" FLG X MJ GATE VALVE	8" FLG X MJ GATE VALVE	3
C	6" MJ X MJ 45° BEND	8" MJ X MJ 45° BEND	4
D	6" PE X PE PIPE	8" PE X PE PIPE	2
E	6" X 2'-6" FLG X PE PIPE WITH SEEP RING	8" X 2'-6" FLG X PE PIPE WITH SEEP RING	2
F	6" X 1'-9" FL X FL PIPE	8" X 1'-8" FL X FL PIPE	1
**G	6" MASTER OCTAVE METER WITH 3G RADIO HEAD	8" MASTER OCTAVE METER WITH 3G RADIO HEAD	1
H	6" FL COUPLING ADAPTER	8" FL COUPLING ADAPTER	1
I	6" X 2" BRASS SADDLE W/ PLUG	8" X 2" BRASS SADDLE W/ PLUG	1
J	6" X 1'-9" FL X PE PIPE	8" X 1'-8" FL X PE PIPE	1

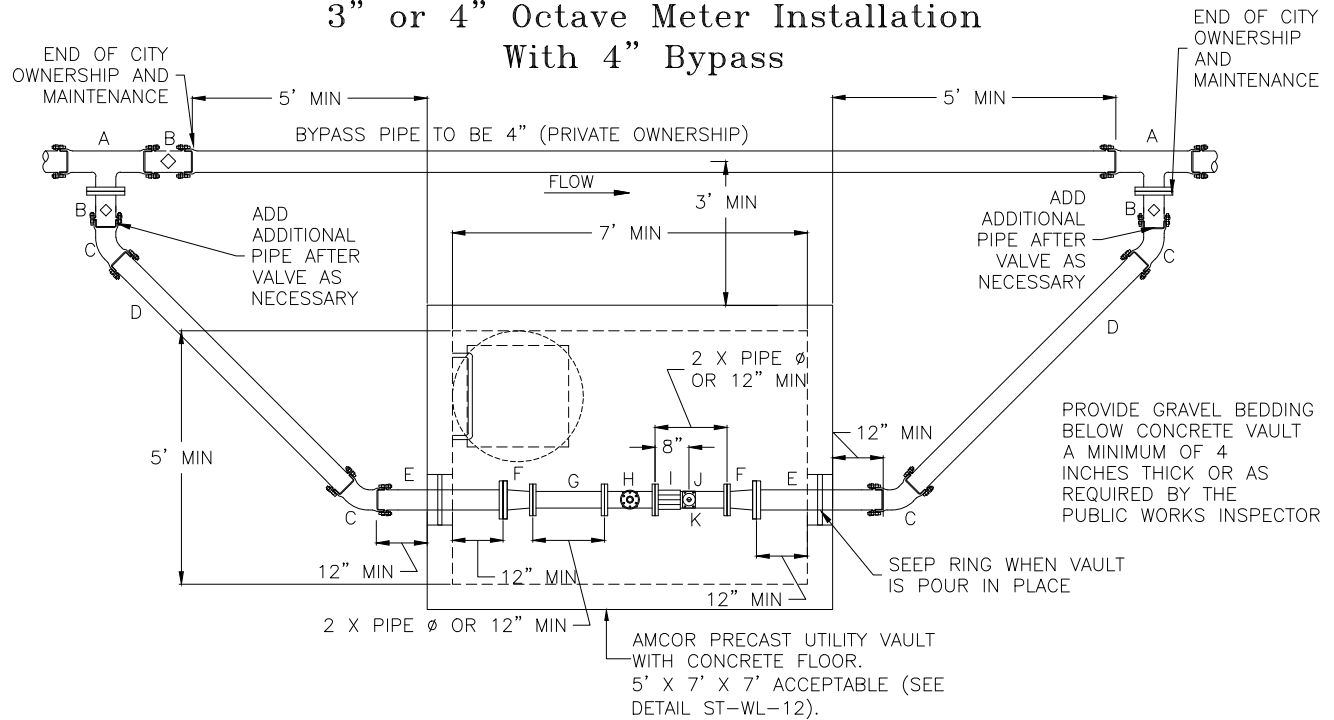
** DENOTES MATERIAL SUPPLIED BY LAYTON CITY WATER DEPARTMENT
1925 NORTH FORT LANE, 336-3720

6" METER WILL SERVICE UP TO 1600 GALLONS PER MINUTE

8" METER WILL SERVICE UP TO 2800 GALLONS PER MINUTE

DRAWN BY SWJ		STANDARD DRAWING
SCALE NONE		6"-8" METER
DATE 5/14		ST-WL-07
REVISIONS 6/22		

3" or 4" Octave Meter Installation With 4" Bypass



WATER METER SIZE			
PART	3"	4"	QUANTITY
A	4" X 4" X 4" MJ X FLG TEE	4" X 4" X 4" MJ X FLG TEE	2
B	4" FLG X MJ GATE VALVE	4" FLG X MJ GATE VALVE	3
C	4" MJ X MJ 45° BEND	4" MJ 45° BEND	4
D	4" PE X PE PIPE	4" PE X PE PIPE	2
E	4" X 2'-6" FLG X PE PIPE WITH SEEP RING	4" X 2'-6" FLG X MJ PIPE WITH SEEP RING	2
F	4" X 3" REDUCER	NOT USED	2
G	3" X 1'-5" FL X FL PIPE	4" X 1'-2" FL X FL PIPE	1
**H	3" MASTER OCTAVE METER WITH 3G RADIO HEAD	4" MASTER OCTAVE METER WITH 3G RADIO HEAD	1
I	3" FL COUPLING ADAPTER	4" FL COUPLING ADAPTER	1
J	3" X 2" BRASS SADDLE W/ PLUG	4" X 2" BRASS SADDLE W/ PLUG	1
K	3" X 1'-5" FL X PE PIPE	4" X 1'-2" FL X PE PIPE	1

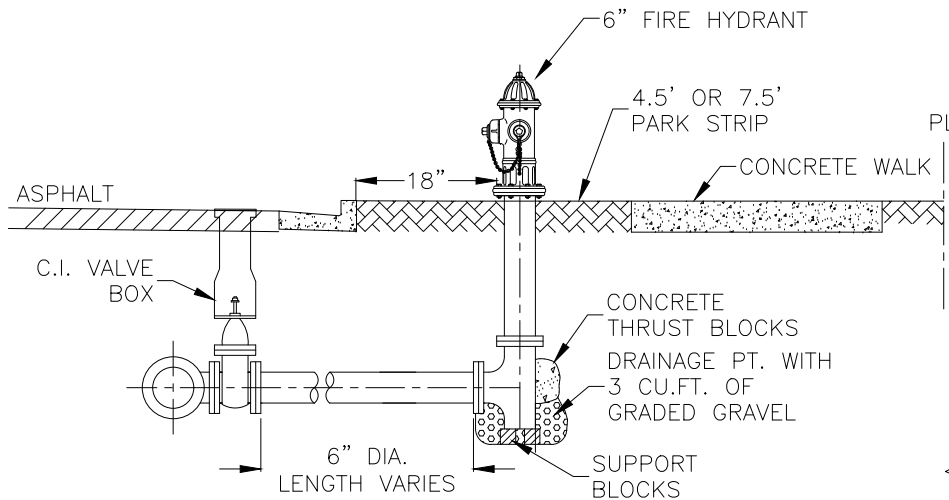
** DENOTES MATERIAL SUPPLIED BY LAYTON CITY WATER DEPARTMENT
1925 NORTH FORT LANE, 336-3720

3" METER WILL SERVICE UP TO 500 GALLONS PER MINUTE

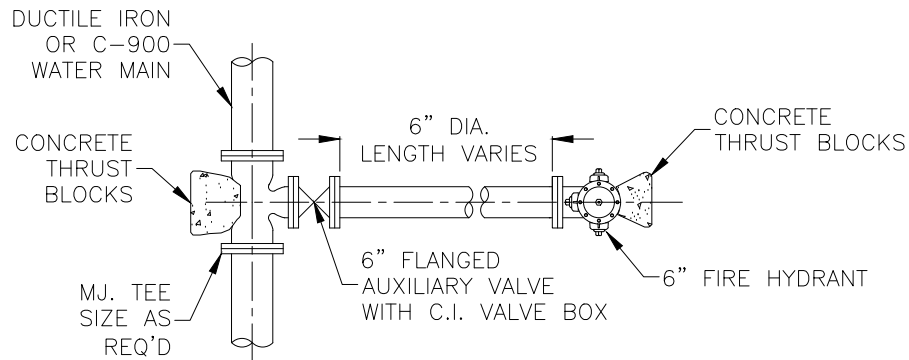
4" METER WILL SERVICE UP TO 1000 GALLONS PER MINUTE

DRAWN BY SWJ		STANDARD DRAWING
SCALE NONE		3"-4" METER 4" BYPASS
DATE 5/14		ST-WL-08
REVISIONS 6/22		

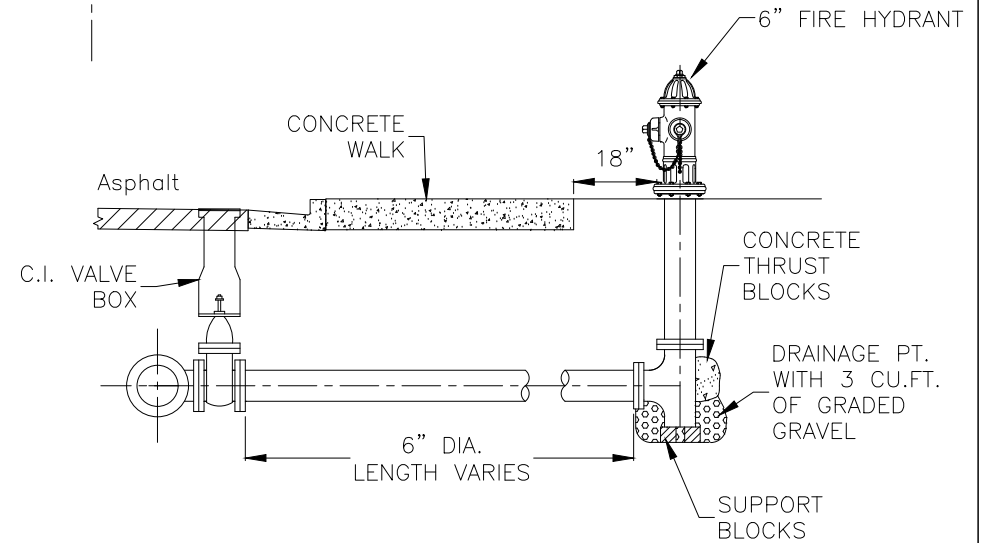
FIRE HYDRANT INSTALLATION



SECTION VIEW —
HYDRANT IN PARK STRIP



PLAN VIEW



SECTION VIEW —
HYDRANT BEHIND
ABUTTING SIDEWALK

NOTES:

- 1) USE CLOW MEDALLION FIRE HYDRANT OR MUELLER SUPER CENTURION 200 FIRE HYDRANT, OR ACCEPTABLE EQUAL.
- 2) SEE DETAIL ST-WL-14 FOR TRACING WIRE INSTALLATION

DRAWN BY
DHR
SCALE
NONE
DATE
1/98
REVISIONS
6/22

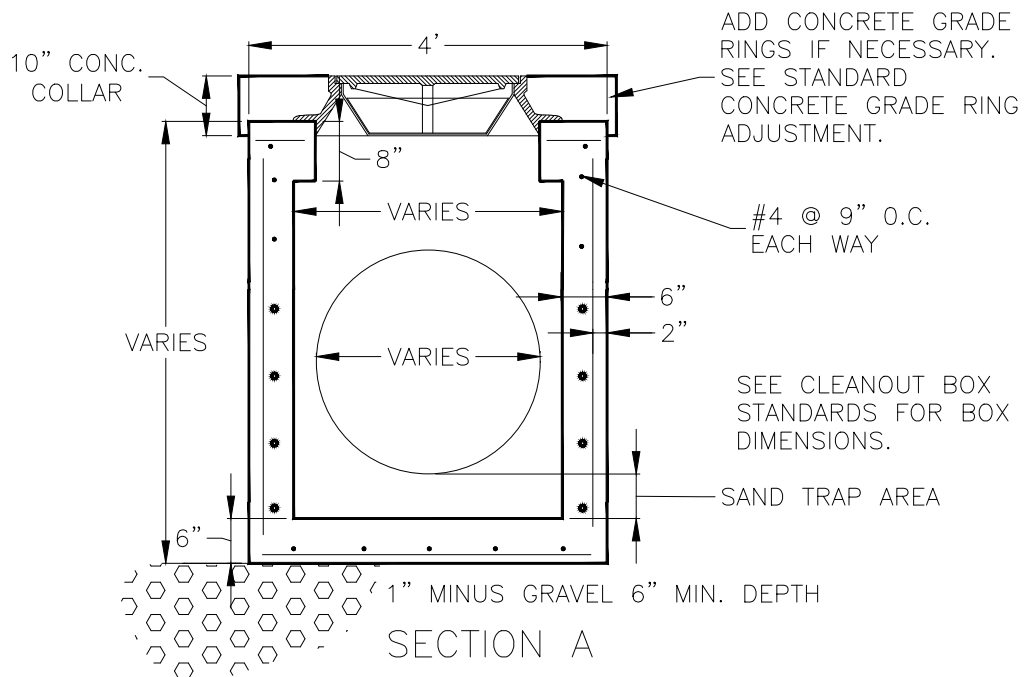
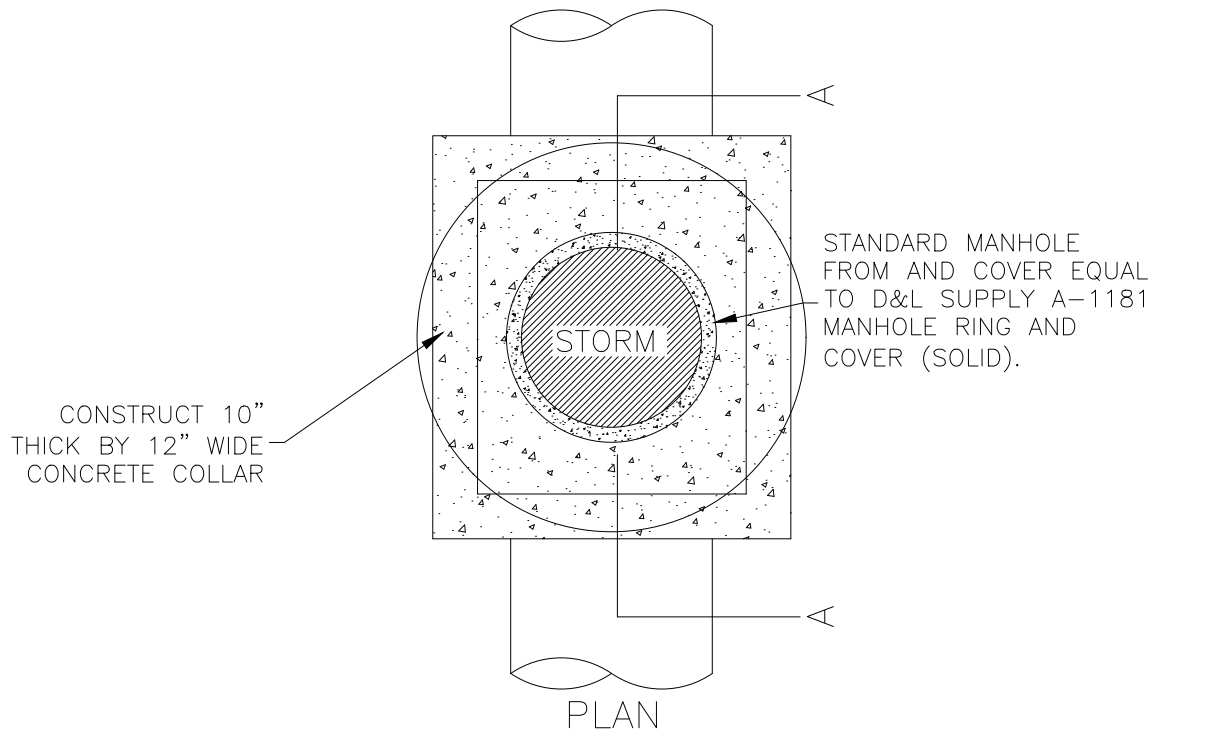
**Layton
City**

STANDARD
DRAWING

FH-DET2

ST-WL-18

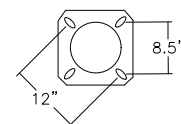
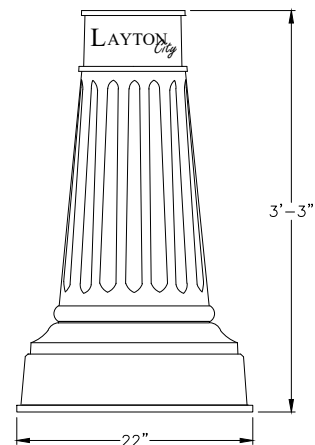
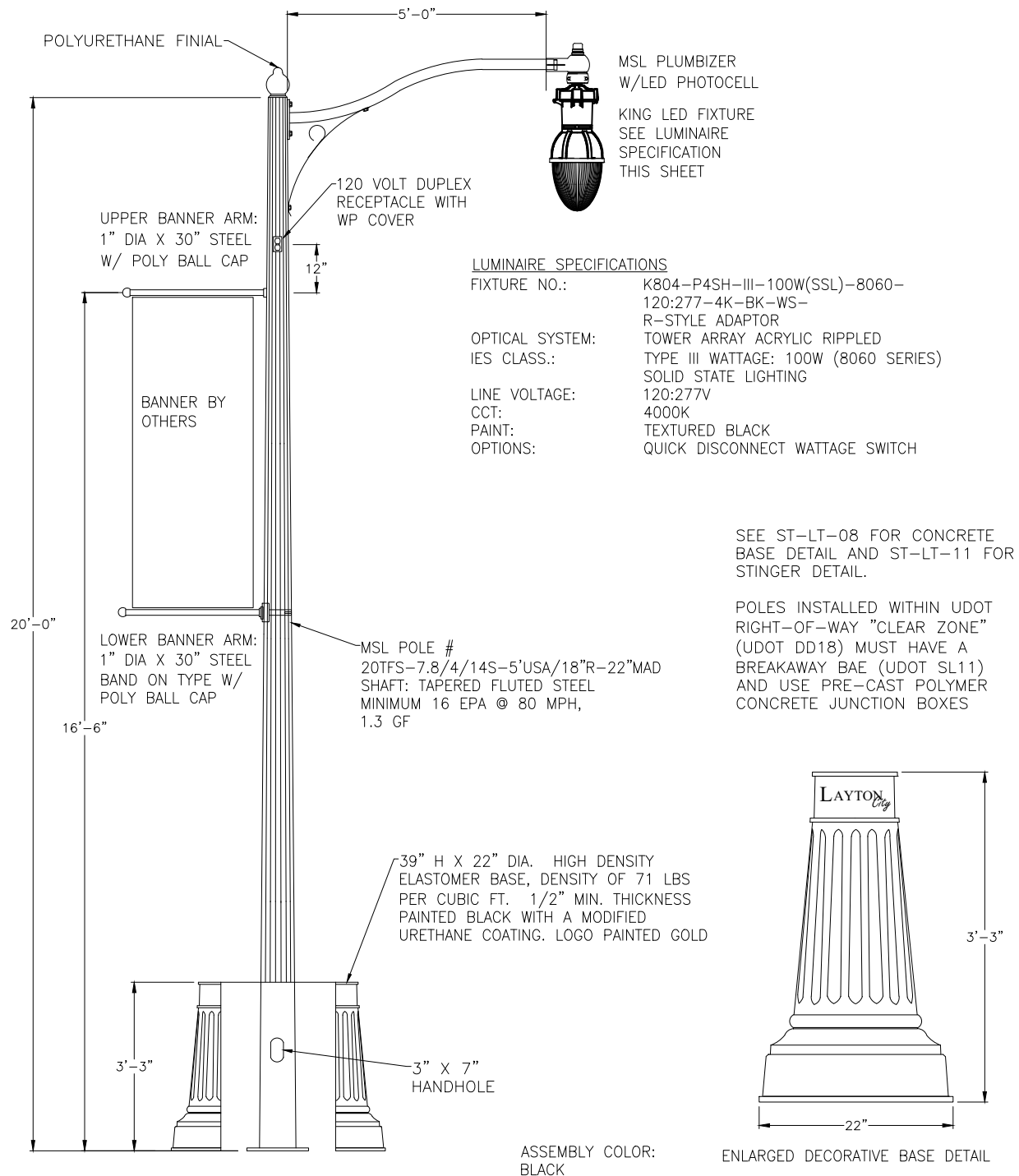
CLEANOUT BOX WITH MANHOLE LID



DRAWN BY DHR		STANDARD DRAWING
SCALE NONE		CO-MH-LID
DATE 8/02		ST-SD-12
REVISIONS 6/22		

TEAR DROP POLE AND FIXTURE – SL-01

MAIN ARTERIAL LED STREET LIGHT



ANCHOR BASE DETAIL 12"
BOLT CIRCLE ANCHOR
BOLTS: 3/4" x 18"
GALVAIZED

DRAWN BY
MTL
SCALE
NONE
DATE
5/11
REVISIONS
7/22

**Layton
City**

STANDARD
DRAWING

SL-01 TEAR DROP FIXTURE

ST-LT-01

STANDARD RESIDENTIAL POLE AND FIXTURE SL-02

SUBDIVISION ROADS –
66' ROW AND LESS

FINIAL:
CAST ALUMINUM

ROOF:
SPUN ALUMINIUM

GLOBE:
PRISMATIC ACRYLIC
REFRACTOR TYPE V

KING FIXTURE:
SEE LUMINAIRE
SPEC THIS SHEET

LUMINAIRE SPECIFICATIONS

FIXTURE NO.: K424R-T1AR-III-100(SSL)-4004
-120:277-K26-PR7-4K-SST-
TB-BK-#2-WS-3X3

OPTICAL SYSTEM: TOWER ARRAY ACRYLIC RIPPLED

IES CLASS.: TYPE III

WATTAGE: 100W (4004 SERIES)
SOLID STATE LIGHTING

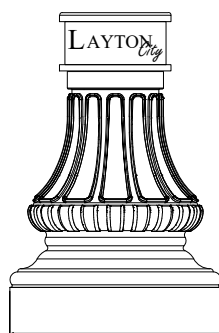
LINE VOLTAGE: 120:277V

CCT: 4000K

POLE ADAPTOR: K26

PAINT: TEXTURED BLACK

OPTIONS: #2 FINIAL
SOLID SPUN TOP
TWIST-LOCK RECEPTACLE
WITH PHOTO-EYE
QUICK DISCONNECT



BASE DETAIL

MOUNTAIN STATES LIGHTING POLE
#16'OH/12' AG RTS/3-5.25-BK
POLE: 12' ABOVE GRADE (16'
OVERALL) SHAFT: TAPERED STEEL
MIN 8 EPA, DIRECT BURIAL TYPE

MSL WASHINGTON DECORATIVE
BASE #22"H X 17"W
WASH/LAYTON CITY/HH/GL/BK
POLYURETHANE 1/2" MIN.
THICKNESS

CONCRETE MOW STRIP

FINISH;
BLACK

COLD TAR EPOXY COATING
UNDERGROUND PORTION OF
POLE 4' MINIMUM

WIREWAY HOLE

12'-0"

4'-0"

DRAWN BY
MTL

SCALE
NONE

DATE
5/11

REVISIONS
5/22

**Layton
City**

STANDARD
DRAWING

SL-02 RESIDENTIAL LIGHT

ST-LT-02

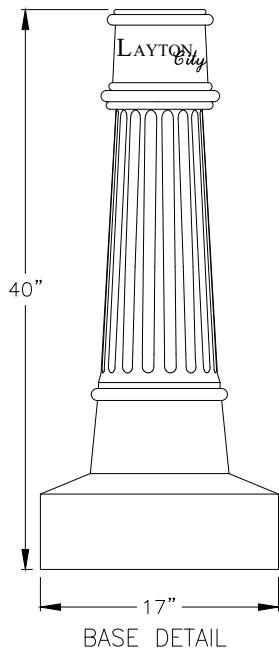
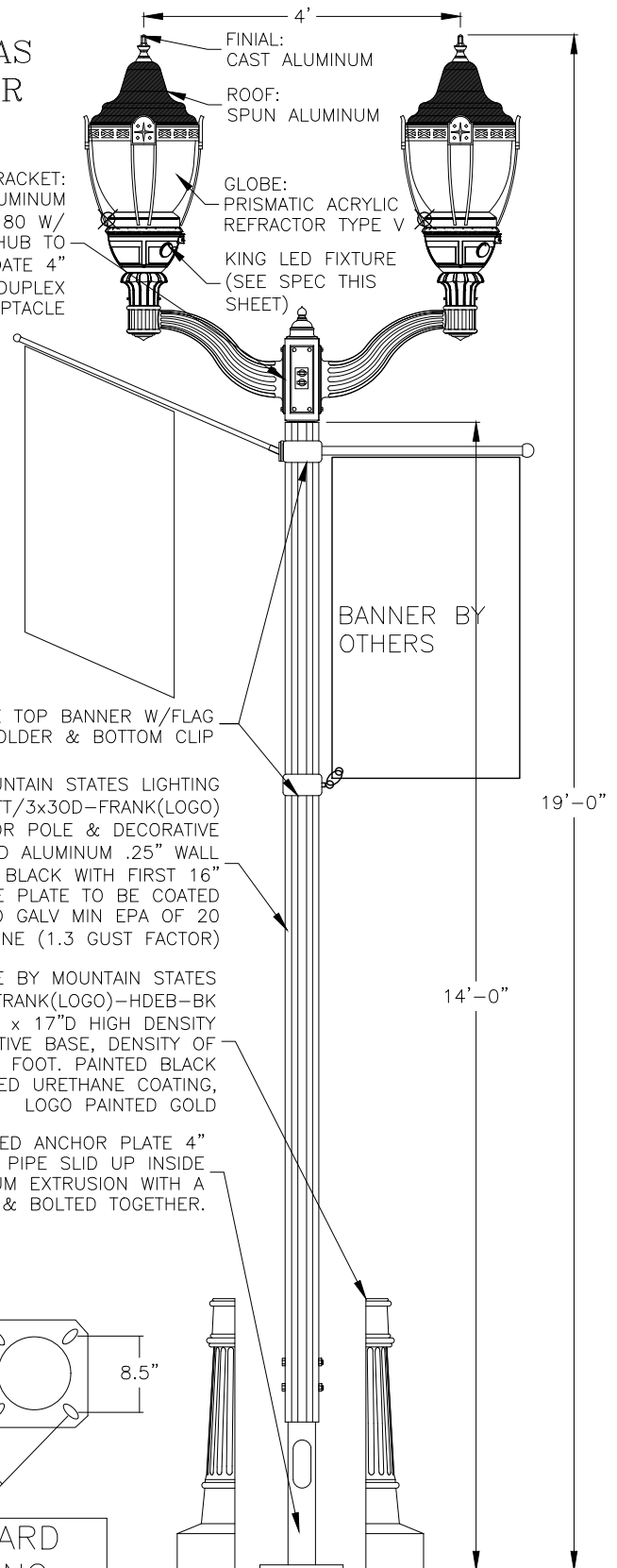
DOUBLE LIGHT FLUTED POLE – SL-03

COMMERCIAL AND/OR RESIDENTIAL AS
DESIGNATED BY THE CITY ENGINEER

LUMINAIRE SPECIFICATIONS

FIXTURE NO.: K424R-T1AR-III-100(SSL)-4004
-120:277-K26-PR7-4K-SST-
WRS-TB-BK-#2-WS-3X3
OPTICAL SYSTEM: TOWER ARRAY ACRYLIC RIPPLED
IES CLASS.: TYPE III
WATTAGE: 100W (4004 SERIES)
SOLID STATE LIGHTING
LINE VOLTAGE: 120:277V
CCT: 4000K
POLE ADAPTOR: K26
PAINT: TEXTURED BLACK
OPTIONS:
#2 FINIAL
SOLID SPUN TOP
TWIST-LOCK RECEPTACLE
WITH PHOTO-EYE
WESTINGHOUSE RING & STRUTS
QUICK DISCONNECT WATTAGE SWITCH

TWIN ARM BRACKET:
CAST ALUMINUM
2-LITE @ 180 W/
CENTER HUB TO
ACCOMMODATE 4"
POLE TENON W/ DUPLEX
120V RECEPTACLE



ANCHOR BASE DETAIL
12" BOLT CIRCLE
ANCHOR BOLTS: 3/4" x 18"

DRAWN BY
MTL
SCALE
NONE
DATE
5/11
REVISIONS
5/22

**Layton
City**

STANDARD
DRAWING

SL-03 DBL LIGHT FLUTED

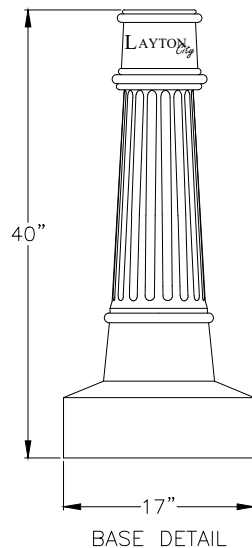
ST-LT-05

SINGLE LIGHT FLUTED POLE AND FIXTURE SL-04 STINGER OR CONCRETE BASE

LUMINAIRE SPECIFICATIONS

FIXTURE NO.: K424R-T1AR-III-100(SSL)-4004
 -120:277-K26-PR7-4K-SST-
 -WRS-TB-BK-#2-WS-3X3
 OPTICAL SYSTEM: TOWER ARRAY ACRYLIC RIPPLED
 IES CLASS.: TYPE III
 WATTAGE: 100W (4004 SERIES)
 SOLID STATE LIGHTING
 LINE VOLTAGE: 120:277V
 CCT: 4000K
 POLE ADAPTOR: K26
 PAINT: TEXTURED BLACK
 OPTIONS: #2 FINIAL
 SOLID SPUN TOP
 TWIST-LOCK RECEPTACLE
 WITH PHOTO-EYE
 WESTINGHOUSE RING & STRUTS
 QUICK DISCONNECT

FINIAL:
 CAST ALUMINUM
 ROOF:
 SPUN ALUMINUM
 GLOBE:
 PRISMATIC ACRYLIC
 REFRACTOR TYPE V
 KING LED FIXTURE
 (SEE LUMINAIRE
 SPEC THIS SHEET)



SEE ST-LT-08 FOR CONCRETE BASE DETAIL AND
ST-LT-12 FOR STINGER DETAIL.

ALL LIGHT POLES INSTALLED WITHIN UDOT
RIGHT-OF-WAY "CLEAR ZONE" (UDOT DD18) MUST
HAVE A BREAKAWAY BASE (UDOT SL11) AND USE
PRE-CAST POLYMER CONCRETE JUNCTION BOXES

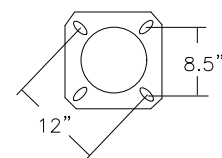
MSL POLE:
 #14EFA-5.0-3X3TT
 14' FLUTED ALUMINUM .25" WALL THICKNESS
 PAINTED BLACK WITH FIRST 16"
 OF POLE AND BASE PLATE TO BE COATED
 WITH INDUSTRIAL COLD GALV
 MIN EPA OF 20 IN 80 MPH ZONE
 (1.3 GUST FACTOR)

MSL DECORATIVE BASE:
 #FRANKLIN 40"X17"DIA. HIGH
 DENSITY ELASTOMER BASE
 DENSITY OF 71 LBS PER CUBIC
 FT. 1/2" MIN. THICKNESS
 PAINTED BLACK WITH A MODIFIED
 URETHANE COATING. LOGO
 PAINTED GOLD

GALVANIZED ANCHOR PLATE 4"
 O.D. TRANSITION PIPE SLID UP
 INSIDE ALUMINUM EXTRUSION
 WITH A COMPRESSION FIT &
 BOLTED TOGETHER.

FINISH;
BLACK

14'-0"



ANCHOR BASE DETAIL
 12" BOLT CIRCLE
 ANCHOR BOLTS: 3/4" x 18"

DRAWN BY
 MTL
 SCALE
 NONE
 DATE
 5/11
 REVISIONS
 7/22

**Layton
City**

STANDARD
DRAWING

SL-04 POLE & FIXTURE

ST-LT-06

SINGLE LIGHT FLUTED POLE AND FIXTURE SL-04 DIRECT BURY

LUMINAIRE SPECIFICATIONS

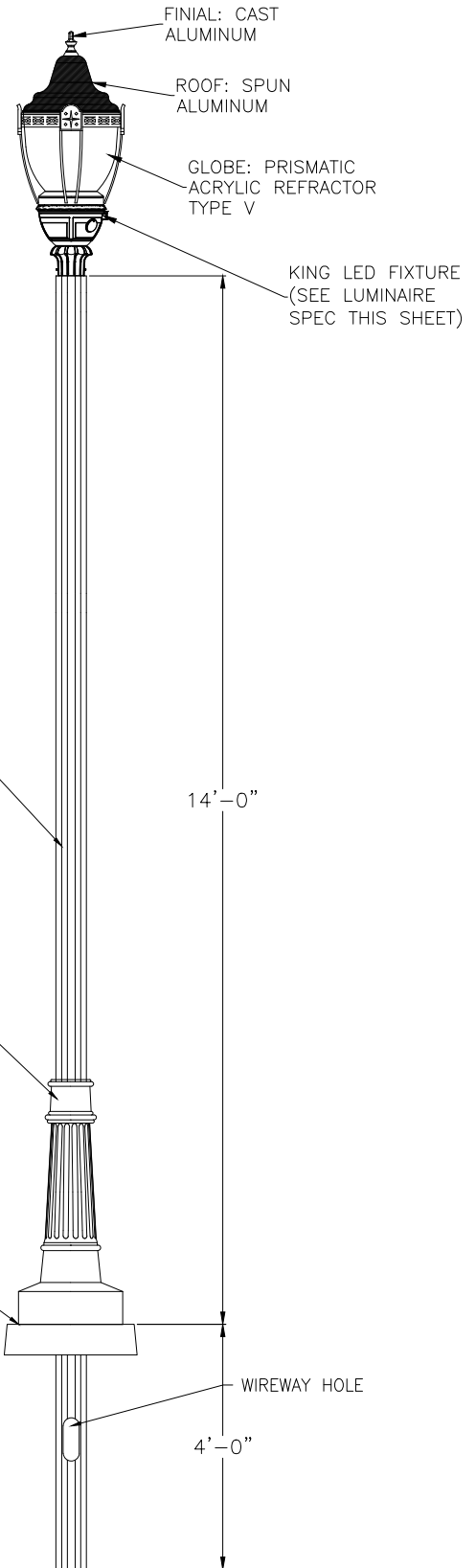
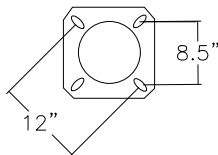
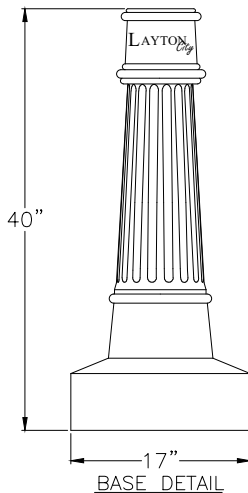
FIXTURE NO.: K424R-T1AR-III-100(SSL)-4004
-120:277-K26-PR7-4K-SST-
-WRS-TB-BK-#2-WS-3X3

OPTICAL SYSTEM: TOWER ARRAY ACRYLIC RIPPLES
IES CLASS.: TYPE III
WATTAGE: 100W (4004 SERIES)
SOLID STATE LIGHTING
LINE VOLTAGE: 120:277V
CCT: 4000K
POLE ADAPTOR: K26
PAINT: TEXTURED BLACK
OPTIONS: #2 FINIAL
SOLID SPUN TOP
TWIST-LOCK RECEPTACLE
WITH PHOTO-EYE
WESTINGHOUSE RING & STRUTS
QUICK DISCONNECT

FINISH:
BLACK

MSL POLE:
#180A/14AG EFA-5.0-3X3TT-HH-WW-BK
18'0A/14'AG FLUTED ALUMINUM
.25" WALL THICKNESS
PAINTED BLACK WITH FIRST 16" OF POLE
AND BASE PLATE TO BE COATED WITH
INDUSTRIAL COLD GALV
MIN EPA OF 20 IN 80 MPH ZONE
(1.3 GUST FACTOR)

MSL DECORATIVE BASE: #FRANKLIN
40"x17"DIA. HIGH DENSITY ELASTOMER
BASE DENSITY OF 71 LBS PER CUBIC FT.
1/2" MIN. THICKNESS PAINTED BLACK
WITH A MODIFIED URETHANE COATING.
LOGO PAINTED GOLD



FINIAL: CAST
ALUMINUM

ROOF: SPUN
ALUMINUM

GLOBE: PRISMATIC
ACRYLIC REFRACTOR
TYPE V

KING LED FIXTURE
(SEE LUMINAIRE
SPEC THIS SHEET)

14'-0"

4'-0"

COLD TAR EPOXY COATING
UNDERGROUND PORTION OF
POLE 4' MINIMUM

DRAWN BY
RPB
SCALE
NONE
DATE
2/22
REVISIONS

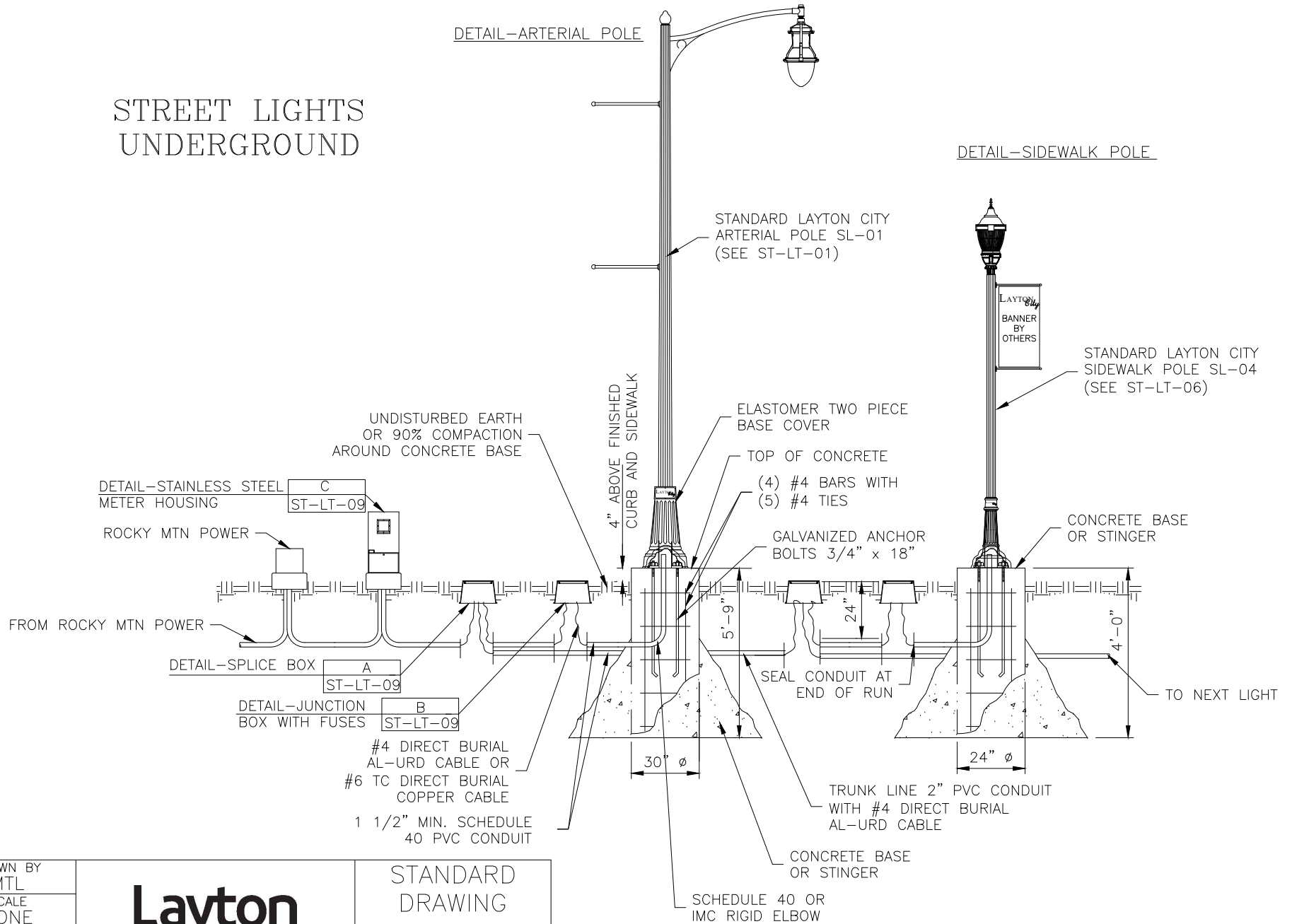
**Layton
City**

STANDARD
DRAWING

SL-04 DIRECT BURY

ST-LT-06B

STREET LIGHTS UNDERGROUND

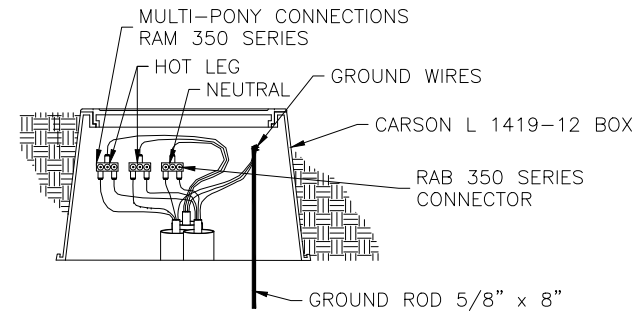


DRAWN BY
MTL
SCALE
NONE
DATE
5/11
REVISIONS
7/22

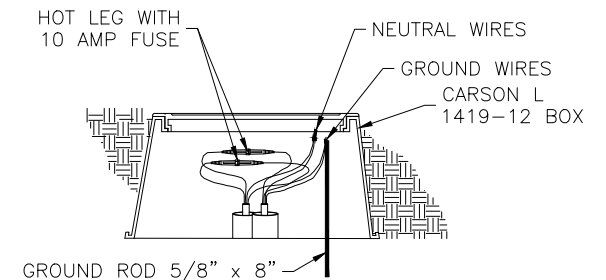
**Layton
City**

STANDARD
DRAWING
STR LIGHTS UNDER
ST-LT-08

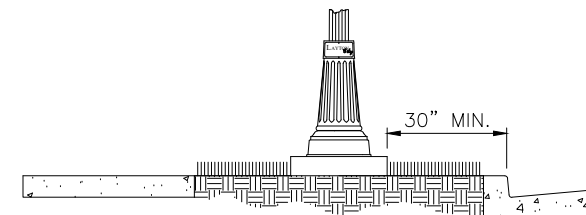
SINGLE STREET LIGHT INSTALLATION



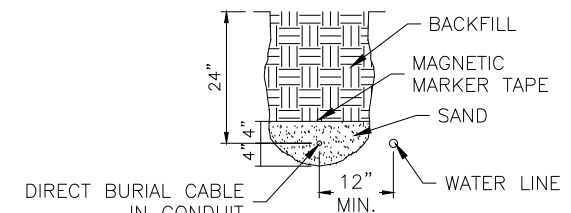
A DETAIL-SPLICE BOX
SCALE: NO SCALE



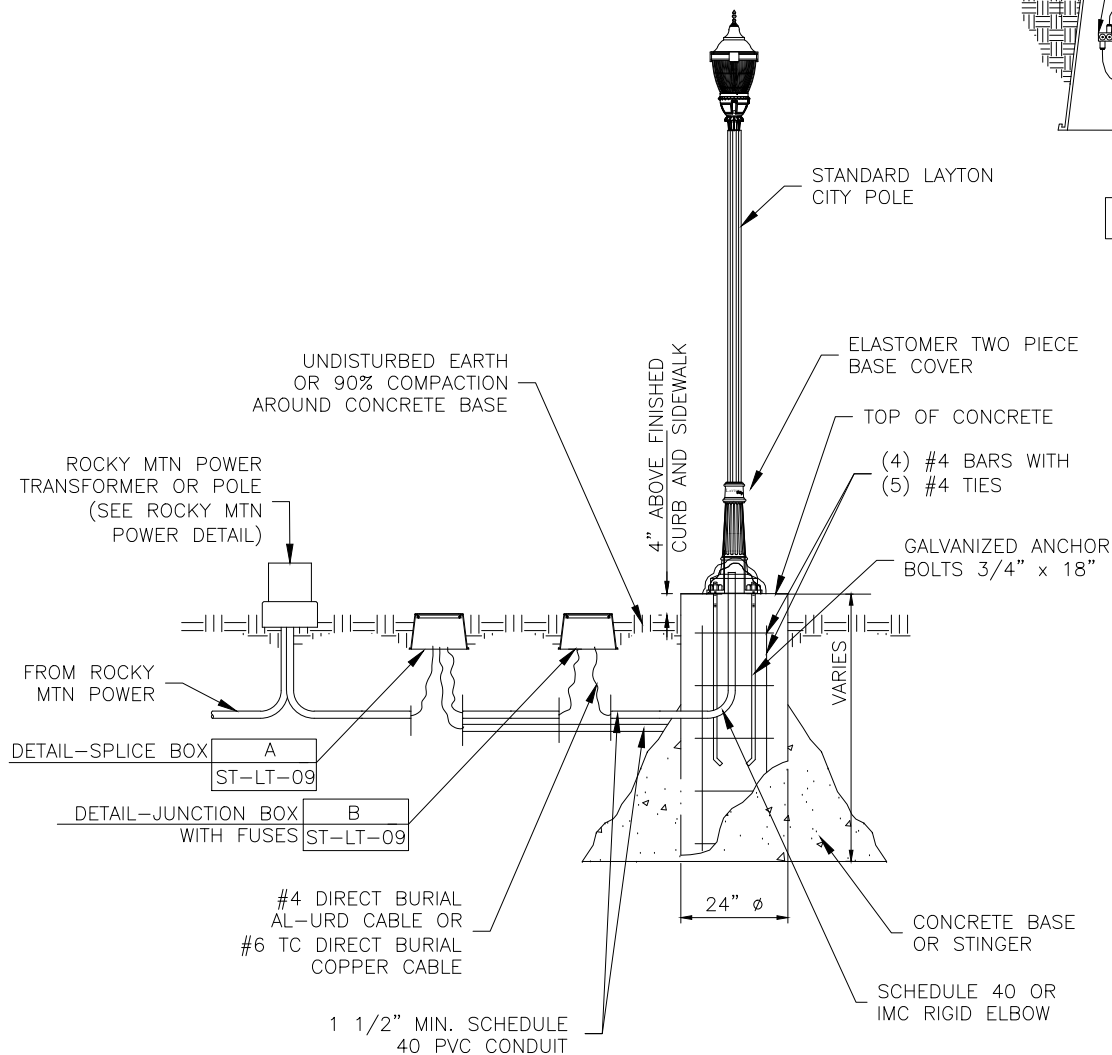
B DETAIL-JUNCTION BOX WITH FUSES
SCALE: NO SCALE



D DETAIL-POLE SPACING FROM FACE OF CURB
SCALE: NO SCALE



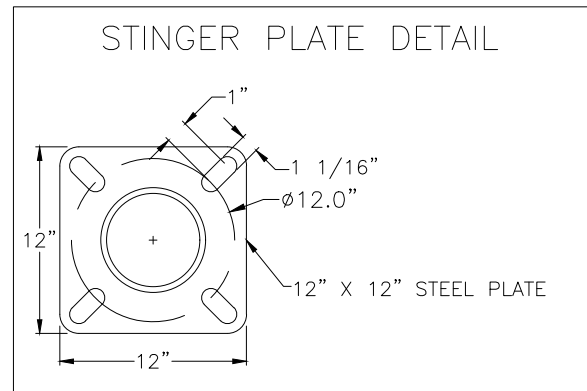
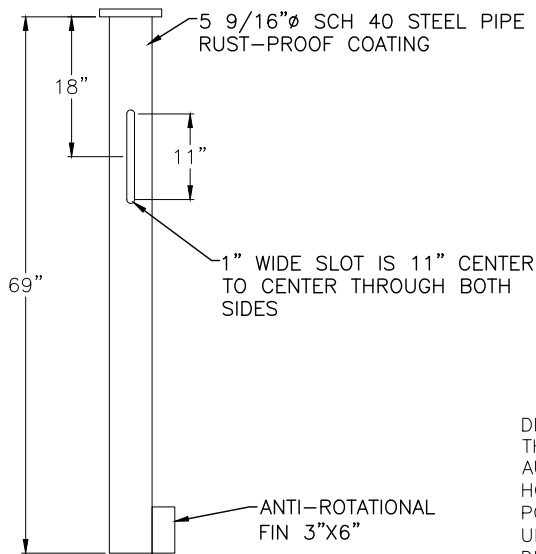
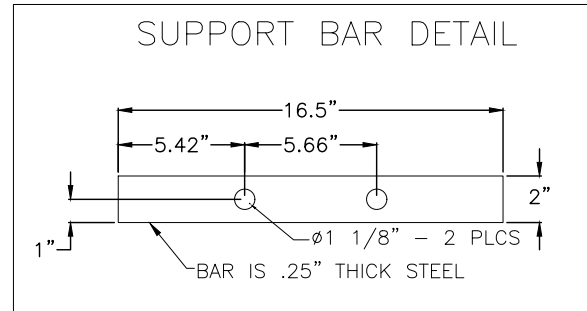
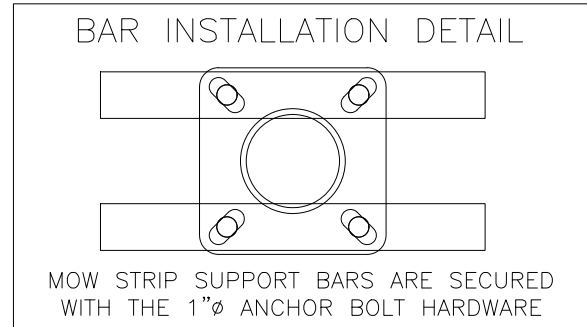
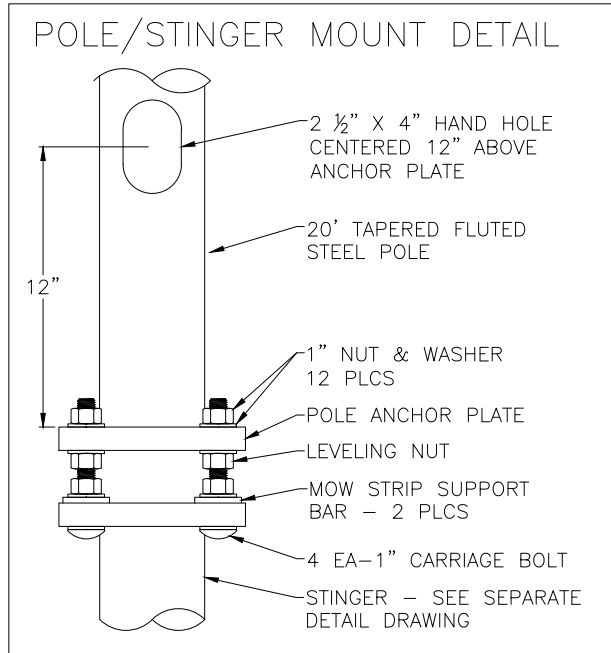
DETAIL-COMMERCIAL BRANCH CIRCUIT TRENCH



DRAWN BY MTL	Layton City	STANDARD DRAWING
SCALE NONE		SINGLE LIGHT INSTALL
DATE 10/12		ST-LT-10
REVISIONS 7/22		

SEE SHEET ST-LT-09 FOR
GENERAL NOTES ON STREET
LIGHT INSTALLATION.

STINGER DETAIL – SL-01 POLE



STINGER AND MOW STRIP
SUPPORT BARS ARE COATED
WITH COLD TAR EPOXY

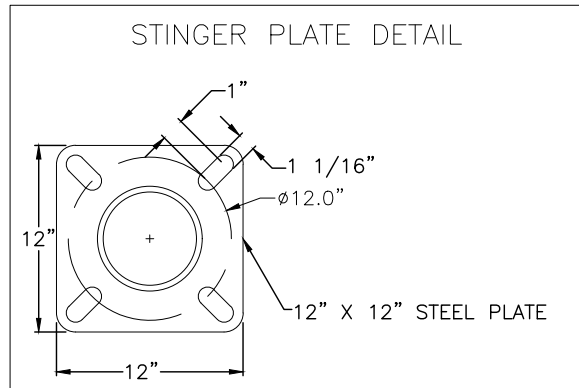
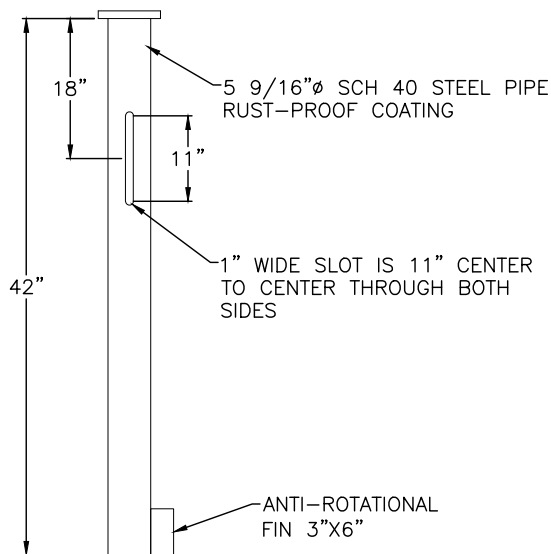
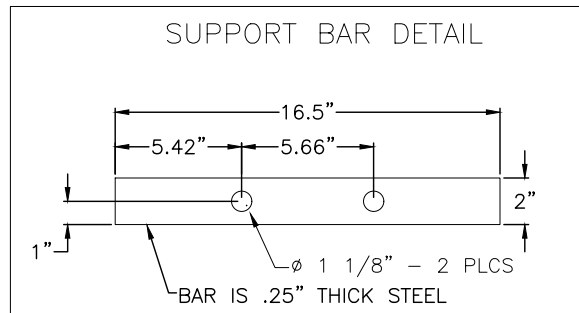
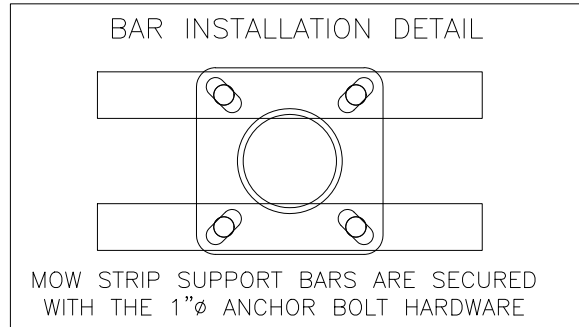
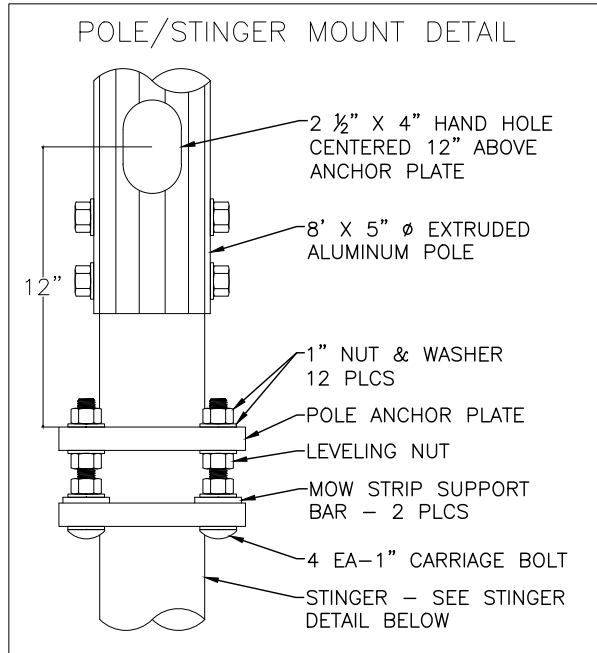
CONCRETE MOW STRIPS TO
BE USED TO SUPPORT BASE
WHEN A STINGER IS USED.

DIRECT BURIAL INSTALLATION: AUGER A HOLE AT LEAST 8-INCHES BIGGER THAN THE DIAMETER OF THE BUTT END OF THE POLE BEING BURIED. AUGER THE HOLE NO DEEPER THAN WHEN THE POLE IS PLACED INTO THE HOLE, IT SHOULD NOT BE ANY DEEPER THAN WHEN SET IN IT'S FINAL POSITION. AUGER SHOULD NOT BE AT A DEPTH TO DISRUPT ANY SOIL UNDER THE FINAL POSITION OF THE POLE. THE REMAINING 2-6" OF DIGGING TO THE SET DEPTH SHOULD BE COMPLETE BY HAND, TO ASSURE NO DISRUPTION OF SOIL UNDER THE POLE. PLACE THE POLE IN THE HOLE AND PLUMB IT VERTICALLY. BACK-FILL UP TO THE CONDUIT, OR WIRING OPENINGS IN THE POLE WITH PEA GRAVEL, COMPACTION SAND, FLOW-ABLE FILL, CLEAN SANDY SOIL WITH A 50LB BAG OF DRY LEAN CONCRETE MIX, OR CLASS 5 ROAD BASE MATERIAL. MAKE SURE THAT THERE ARE NO AIR VOIDS IN THE FILL MATERIAL, AND WHEN USING ROAD BASE, OR SANDY SOIL WITH CONCRETE MIX, COMPACT THE MATERIAL WHILE FILLING THE HOLE. PLACE 90° CONDUIT ELBOW UP THE OPENINGS IN THE POLE FOR A RACEWAY INTO THE POLE. PLUMB THE POLE ONE LAST TIME. FILL THE REMAINING HOLE IN THE GROUND WITH THE SAME MATERIAL AND METHOD USED ABOVE EXCEPT NO PEA GRAVEL, APPROXIMATELY 1" ABOVE GRADE, COMPACTING AS YOU GO. ROCKS OVER 1/2" IN SIZE SHOULD NOT BE LOCATED IN ANY COMPACTION MATERIAL. COMPACTION OF FILL MATERIAL IS CRITICAL. IF USING FLOW-ABLE FILL, BRACE THE POLE UNTIL THE FLOW-ABLE FILL IS CURED.

PART #: STING69"X5-9/16"RSS\8X8-MSBAR-CTE

DRAWN BY RPB		STANDARD DRAWING
SCALE NONE		STINGER FOR SL-01 POLE
DATE 7/22		ST-LT-11
REVISIONS		

STINGER DETAIL – SL-04 POLE



STINGER AND MOW STRIP
ARE COATED WITH COLD TAR EPOXY

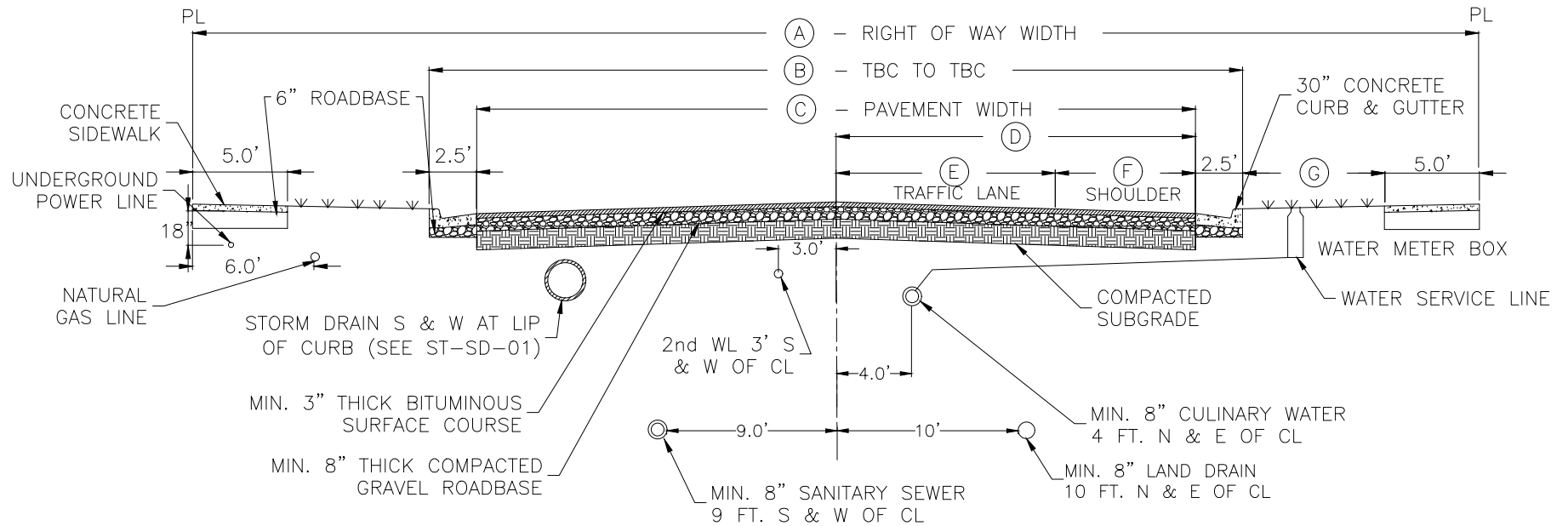
CONCRETE MOW STRIP TO BE USED
TO SUPPORT BASE WHEN A STINGER
IS USED.

DIRECT BURIAL INSTALLATION: AUGER A HOLE AT LEAST 8-INCHES BIGGER THAN THE DIAMETER OF THE BUTT END OF THE POLE BEING BURIED. AUGER THE HOLE NO DEEPER THAN WHEN THE POLE IS PLACED INTO THE HOLE, IT SHOULD NOT BE ANY DEEPER THAN WHEN SET IN IT'S FINAL POSITION. AUGER SHOULD NOT BE AT A DEPTH TO DISRUPT ANY SOIL UNDER THE FINAL POSITION OF THE POLE. THE REMAINING 2-6" OF DIGGING TO THE SET DEPTH SHOULD BE COMPLETE BY HAND, TO ASSURE NO DISRUPTION OF SOIL UNDER THE POLE. PLACE THE POLE IN THE HOLE AND PLUMB IT VERTICALLY. BACK-FILL UP TO THE CONDUIT, OR WIRING OPENINGS IN THE POLE WITH PEA GRAVEL, COMPACTION SAND, FLOW-ABLE FILL, CLEAN SANDY SOIL WITH A 50LB BAG OF DRY LEAN CONCRETE MIX, OR CLASS 5 ROAD BASE MATERIAL. MAKE SURE THAT THERE ARE NO AIR VOIDS IN THE FILL MATERIAL, AND WHEN USING ROAD BASE, OR SANDY SOIL WITH CONCRETE MIX, COMPACT THE MATERIAL WHILE FILLING THE HOLE. PLACE 90° CONDUIT ELBOW UP THE OPENINGS IN THE POLE FOR A RACEWAY INTO THE POLE. PLUMB THE POLE ONE LAST TIME. FILL THE REMAINING HOLE IN THE GROUND WITH THE SAME MATERIAL AND METHOD USED ABOVE EXCEPT NO PEA GRAVEL, APPROXIMATELY 1" ABOVE GRADE, COMPACTING AS YOU GO. ROCKS OVER 1/2" IN SIZE SHOULD NOT BE LOCATED IN ANY COMPACTION MATERIAL. COMPACTION OF FILL MATERIAL IS CRITICAL. IF USING FLOW-ABLE FILL, BRACE THE POLE UNTIL THE FLOW-ABLE FILL IS CURED.

PART #: STING42"x5-9/16"RSS\12X12-MSBAR-CTE

DRAWN BY RPB		STANDARD DRAWING
SCALE NONE		STINGER FOR SL-04 POLE
DATE 7/22		ST-LT-12
REVISIONS		

STREET SECTION



* ONLY ALLOWED IN CUL-DE-SACS OR LOOP STREETS SERVING TEN OR FEWER LOTS OR SENSITIVE LANDS AREA

** ARTERIAL STREETS SHALL HAVE:
4 - 12 FT. WIDE TRAFFIC LANES
2 - 8 FT. WIDE PARKING LANES
1 - 12 FT. WIDE MEDIAN STRIP

*** HILLSIDE RESIDENTIAL STREET - AS APPROVED BY CITY ENGINEER

**** LOOPS, CUL-DE-SACS AND/OR STREET WITH 10 OR FEWER LOTS/UNITS

STREET DIMENSIONS

STREET TYPE	(A)	(B)	(C)	(D)	(E)	(F)	(G)
**ARTERIAL	100'	81'	76'	38'	12.0'	8.0'	4.5'
MINOR ARTERIAL	84'	65'	60'	30'	11.0'	8.0'	4.5'
COLLECTOR	66'	47'	42'	21.0'	13.5'	7.5'	4.5'
MINOR COLLECTOR	60'	41'	36'	18.0'	10.5'	7.5'	4.5'

NOTE:
UNLESS APPROVED OTHERWISE,
MIN. DEPTH OF COVER OVER
BURIED UTILITY LINES SHALL BE:

WATER MAIN	4.0 FT.
WATER SERVICE LINE	4.0 FT.
SECONDARY WATER	3.0 FT.
SEWER MAIN	5.0 FT.
STORM DRAIN	2.0 FT.
LAND DRAIN	4.5 FT.

TYPICAL SUBDIVISION	(A)	(B)	(C)	(D)	(E)	(F)	(G)
RESIDENTIAL COLLECTOR	62'	37'	32'	16'	10'	6'	7.5'
RESIDENTIAL	58'	33'	28'	14'	10'	4'	7.5'
*MINOR STREET	50'	33'	28'	14'	14'	-	4.5'
***6.0 ABUTTING WALK	39'	33'	28'	14'	10'	4'	-
****PRIVATE MINOR	50'	33'	28'	14'	10'	4'	4.5'

4.0' WALK

4.0' WALK

DRAWN BY
DHR

SCALE
NONE

DATE
06/10

REVISIONS
7/22

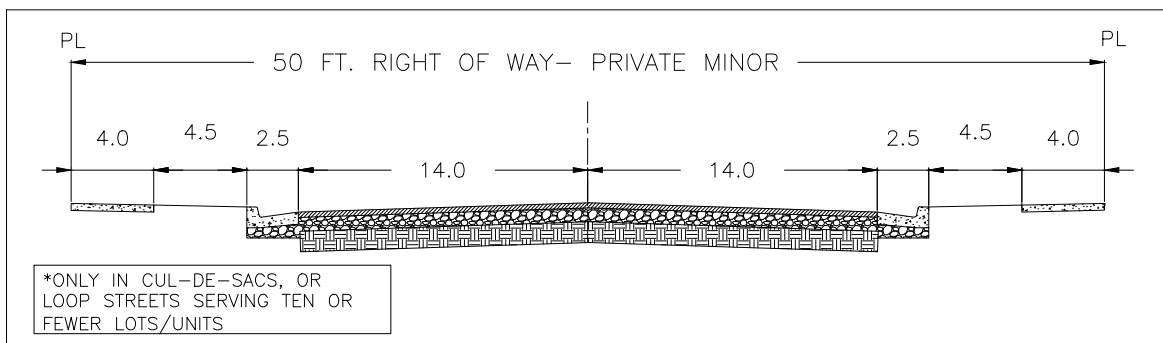
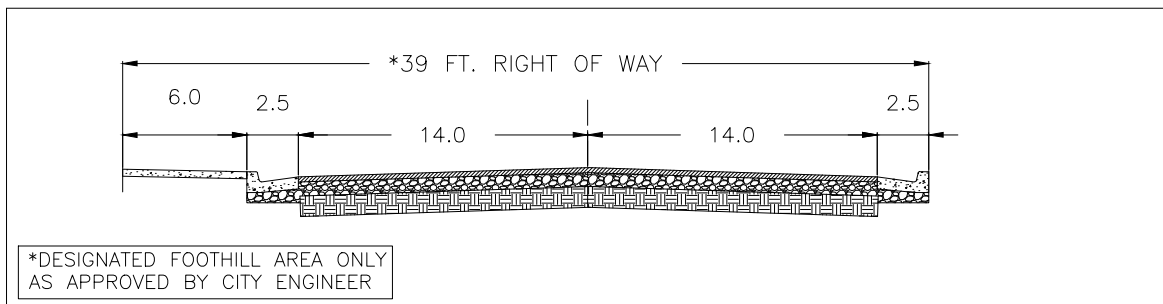
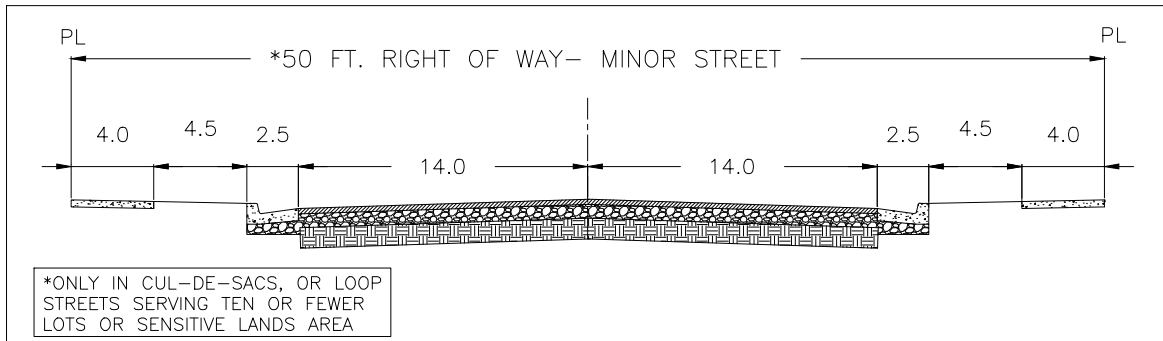
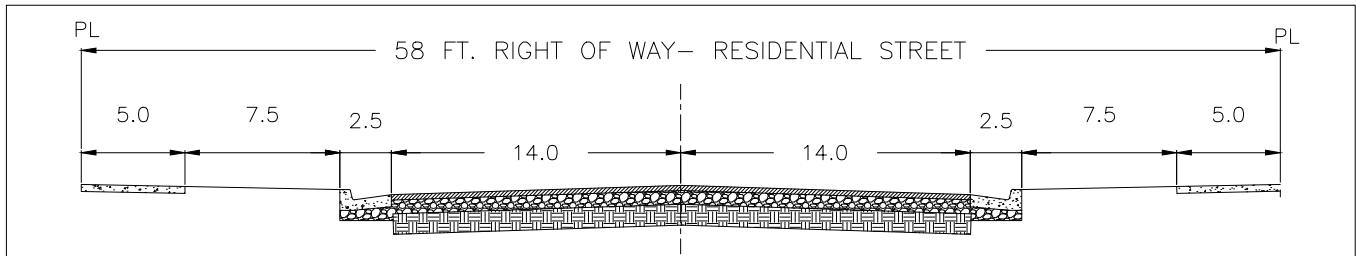
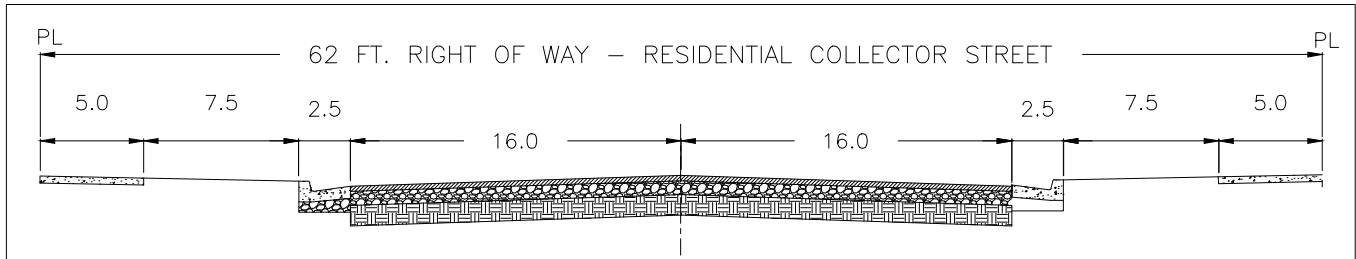
Layton
City

STANDARD
DRAWING

STR-XSEC

ST-ST-04

SUBDIVISION STREET CROSS SECTIONS



DRAWN BY
DHR
SCALE
NONE
DATE
6/09
REVISIONS
7/22

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SUB ST XSECTION
ST-ST-05