Shaping our community together

CITY OF LACEY

420 College Street SE
Lacey, WA 98503
360-491-5642

COMMUNITY DEVELOPMENT DEPARTMENT
PRESUBMISSION CONFERENCE AGENDA

THE FOLLOWING PROJECTS WILL BE CONSIDERED AT CITY HALL, 420 COLLEGE STREET SE.

MEETING DATE: **Wednesday, October 23, 2019**

TIME	PRE-SUB-MISSION	LAND-CLEARING REVIEW	SITE PLAN REVIEW	DESCRIPTION
SPR Team Meeting will be held on the Tuesday prior to presub meeting date.				
10:00 a.m.				**19-292 Rossman & Co. Zoning Text Amendment** **N/A Andrews/Stiles** **N/A LI-C**
11:00 a.m.				**19-289 QFC Fuel Station** **70220000700 Seymour/Stiles** **4775 Whitman Ln SE GC**
12:00 p.m.				
1:30 p.m.				**19-288 Korean Women's Assoc. Senior Housing Apts** **55250007500 Seymour/Stiles** **1302 Homann Dr SE CBD-4**
2:30 p.m.				**19-300 Deacon Development 30,000sf Office Bldg** **75390000300 Schelling/Stiles** **7423 Hawks Prairie Rd NE CCD**
3:30 p.m.				

RECEIVED

OCT 11 2019

BY

Ryan

CITY OF LACEY
Community & Economic Development Department
420 College Street SE
Lacey, WA 98503
(360) 491-5642

OFFICIAL USE ONLY	
CASE NUMBER:	19-292
RELATED CASE NUMBERS:	
PLANNER ASSIGNED:	
PW ASSIGNED:	

PRESUBMISSION CONFERENCE REQUEST FORM

ONE WEEK PRIOR TO REQUESTED DATE, SUBMIT VIA EMAIL TO PLANNING@CI.LACEY.WA.US, OR TO LACEY CITY HALL. NO FEE IS REQUIRED. SUBMISSION SHOULD INCLUDE COMPLETED APPLICATION, SITE PLAN DRAWING, VICINITY MAP, AND TRAFFIC GENERATION WORKSHEET.

APPLICANT: Rossman & Company, LLC

ADDRESS: 925 Fourth Ave. Suite 2000 **CITY:** Seattle **STATE:** WA **ZIP:** 98104

PHONE NUMBER: (206)595-0983 **EMAIL:** chris.rossman@rossmancompany.com

REPRESENTATIVE: McKenzie Darr

ADDRESS: 925 Fourth Ave. Suite 2000 **CITY:** Seattle **STATE:** WA **ZIP:** 98104

PHONE NUMBER: (408)373-7525 **EMAIL:** mdarr@awolff.com

PROJECT ADDRESS: N/A

ASSESSOR'S TAX PARCEL NUMBER(S): N/A

BRIEF DESCRIPTION OF PROJECT: A zoning text amendment to permit outdoor storage in the Light Industrial/ Commercial zone, subject to specific development standards.

TOTAL ACREAGE: N/A **TOTAL SQ. FT OF BLDG:** N/A **ZONING:** Light Industrial/Commercial

PROPOSED LAND USE: ( ) SINGLE-FAMILY ( ) MULTI-FAMILY ( ) INDUSTRIAL DUPLEX ( ) COMMERCIAL ( ) M.H. PARK

EXISTING ACCESS: N/A **PROPOSED ACCESS:** N/A

INDICATE PREFERENCE FOR A MEETING DATE AND TIME:

(MEETINGS ARE HELD THE 2ND AND 4TH WEDNESDAY OF EACH MONTH) **DATE:** 10/23/19 **TIME:** 10 11 am

A presubmission conference is an opportunity for the developer and/or their representative to meet with staff to discuss preliminary studies or sketches of the proposed project. At the conference, staff will make available, pertinent information relating to the proposed development. The intent is to identify and/or eliminate as many potential problems as possible in order for the project to be processed without delay. The conference should take place prior to detailed work by an engineer or surveyor; however, the site drawing submitted, should have sufficient information to allow for staff review. Discussion topics will include such things as Comprehensive Plan, Street Plan, Storm Run Off & Retention, Shoreline Master Program, Zoning, Availability of Water/Sewer, Development Concepts, other requirements and permits, and the environmental impact. If the applicant owns adjacent land, the possibilities of future development will be discussed. Written information regarding process, specific requirements & related issues, will be furnished at the meeting. Staff will typically visit the site prior to the meeting and may enter the property if deemed necessary to gain a full understanding of the project.

TO:	City of Lacey
FROM:	Rossman & Company, LLC
SUBJECT:	Zoning Code Text Amendment; Chapter 16.39
DATE:	October 11, 2019

This memo is provided to request a Presubmission Conference Meeting to review and discuss a proposal for a text amendment to the Lacey Zoning Code. The proposed text amendment would permit outdoor storage in the Light Industrial/Commercial zone, subject to specific development standards.

Description of Proposal

General Description

This proposal would allow outdoor storage to be a use permitted by right within the Light Industrial/Commercial zoning designation, subject to specific development standards, including enhanced landscaping, visual screening, and onsite surfacing. These requirements would mitigate the visual impact of outdoor storage, while allowing a use that supports existing and further light industrial and commercial development.

Intent & Reason

The LI/C zone currently prohibits "uses which are not primarily conducted indoors" (LMC 16.39.010.D.). The zone permits the following uses:

1. "Light industrial activities involving the manufacture, repair, servicing, or sale of goods or products which can be performed with minimal adverse impact on, and pose no special hazard to, the environment and the community. Such goods or products may include, but are not limited to:
    a. "Mechanical, automotive, marine and contractors' or builders' equipment and supplies...
2. "Light industrial activities involving the assembly of manufactured products and processing of materials....
3. "Other uses:
    a. "Warehousing and distribution facilities and storage of equipment, commodities and products...
    d. "Accessory uses clearly subordinate to, and an integral part of, the primary use of the property" (LMC 16.39.020.A.1 – 3).

As is evident by current uses in the LI/C zone, outdoor storage is often an acceptable accessory use to currently permitted primary uses within this zone. Outdoor storage has then been deemed by the City to be "an integral part of the primary use" (LMC 16.39.020.A.3.d.).

However, outdoor storage is not permitted as a primary use in either the Light Industrial/Commercial District (LMC 16.39.010) or the Light Industrial District (LMC 16.40.010). As a result, existing users that

require additional outdoor storage to expand their operational capacity and/or inventory would be required to relocate or expand to parcels with a structure substantial enough to be considered the primary use. The cost to develop, buy, or lease a warehouse would likely be significantly more expensive than the cost to develop, buy, or lease land for outdoor storage. Alternatively, businesses could relocate or expand to Thurston County, which does not subjugate outdoor storage to being an accessory use in the Light Industrial zoning district (Thurston County Zoning Code 20.28.020), or other neighboring jurisdictions. This limit on potential growth may act as a deterrent to new businesses evaluating whether to locate in the City of Lacey. Prohibiting outdoor storage as a primary use limits the growth potential of existing businesses in the City of Lacey and deters new businesses from locating in Lacey. Therefore, a draft amendment is being presented to the City to allow outdoor storage as a permitted use within the LI/C zoning designation.

The expanding logistics network in the City, including the large Target, Uline and Home Depot distribution centers, requires support services, including trucking and trailer operations, that require outdoor storage to house their vehicle inventory. The proposed amendment would allow the necessary logistics and support services to be located closer to the users they support, promoting operating efficiencies and mitigated environmental impacts associated with reduced trip lengths.

The proposed amendment also includes specific development standards for this use to ensure compatibility with surrounding uses and minimize the visual impact of the use.

Text Change Requested

See Appendix A. Two proposed versions are being presented for the City's consideration. While the intent and effect of the proposed amendment are consistent in both versions, the proposed text modifications are made in different sections of the code in each version.

Description of Affected Areas

Approximately 43 parcels in the City of Lacey have been designated as Light Industrial/Commercial (LI/C). These parcels are generally located in two clustered locations:

- In the Hawks Prairie Planning Area, approximately located north of Hickory Stick Lane NE and Willamette Dr. NE, west of Hogum Bay Rd. NE, south of 31st Ave. NE, and east of Birdseye Ave. NE.
    - Land adjacent to this cluster of LI/C zoned land has been designated Hawks Prairie Business District – Business/Commercial, Community Office, Hawks Prairie Business District – Commercial, Open Space Institutional, Light Industrial, Moderate Density Residential, and High Density Residential.
- In the Lakes Planning Area, approximately located north of Carpenter Rd. SE, west of the western terminus of 14th Ave. SE, south of the Woodland Trail, and east of Homann Park.
    - Land adjacent to this cluster of LI/C zoned land has been designated Moderate Density Residential and Open Space – Park.

LI/C designated parcels in both the Hawks Prairie Planning Area and the Lakes Planning Area have largely been developed. Existing uses in the LI/C zone in the Hawks Prairie Planning Area include light industrial uses, warehouse and distribution uses, general commercial uses, and existing nonconforming outdoor

storage. Existing uses in the LI/C zone in the Lakes Planning Area include light industrial uses and general commercial uses. Several existing commercial and industrial uses in this area include outdoor storage, particularly outdoor vehicular storage, as an accessory use to the primary use.

Per the City's Zoning Map, a small portion of land zoned LI/C appears to be within the City of Lacey's Urban Growth Area. This land is located in the Lakes Planning Area, immediately south of Goose Pond and the Woodland Trail. However, the City of Thurston's Parcel Maps depict the entirety of the LI/C zoned land within the City of Lacey

Figure 1: Lacey Zoning Map Excerpt

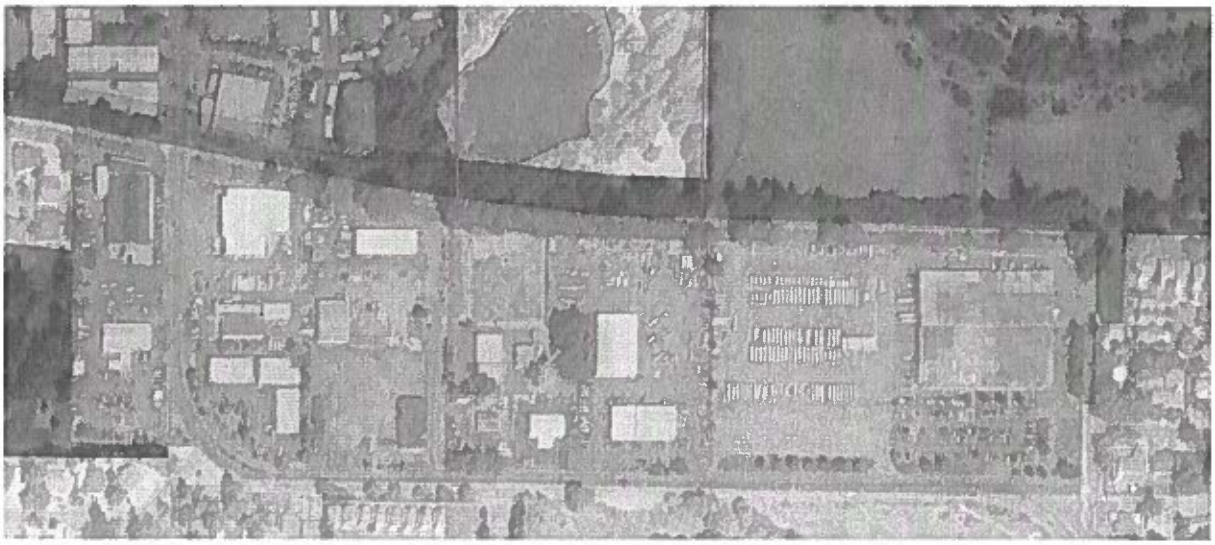

Figure 2: Thurston County Parcel Map

Specific Questions

At the Presubmission meeting, we would like to address the following:

- Please confirm that no LI/C zoned land is located within the City's Urban Growth Areas.
- Please confirm that there is not additional LI/C zoned land other than what is noted in this memo.
- Was this issue, the zones' specific allowed uses, or standards proposed for change discussed during the Comprehensive Plan and zoning regulations review and adoption process?
- Does the City have a current inventor of how many acres of developed and undeveloped property are in the LI/C zone?
    - If not, can the City provide a list of parcels in this zone that are currently being developed?
- Does the City anticipate that supplemental information and/or special reports will be required for this application?
- Discuss schedule for the text amendment application.

Appendix A

Proposed Text Amendment

Version 1

Chapter 16.03
GENERAL PROVISIONS

16.03.070 Fencing standards. SHARE

A. Maximum Height.

1. Front Yards. The maximum height of free-standing walls, fences, or hedges placed in the front yard of residential buildings shall be three feet unless a taller masonry wall is required, per the responsible official, to mitigate significant noise impacts.

2. Side or Rear Yard. The maximum height of free-standing walls, fences, or hedges placed in the side or rear yard of residential buildings shall be seven feet unless a taller masonry wall is required per the responsible official, to mitigate significant noise impacts.

3. Transparent Fencing. The maximum height of any decorative wall or fence which allows visibility, such as wrought iron or split rail fences, shall be eight feet.

B. Chain Link Fencing.

1. All chain link fences shall be set back at least three feet from the back of the sidewalk to allow for landscaping elements to screen the fence.

2. Temporary construction fences are exempt from the above requirements.

C. Outdoor Storage

1. Site obscuring fencing is required for industrial outdoor storage uses. Acceptable fencing material includes masonry or chain link fencing with privacy slats.

2. All fencing required for outdoor storage shall be set back at least three from any public right of ways to allow for landscaping elements to screen the fence.

3. Alternative materials or configurations may be considered through the design review process, provided the proposed treatment minimizes negative visual and compatibility impacts.

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CD. Prohibited Material. Electrified and other dangerous fences are prohibited. Barbed and razor wire is prohibited in all zones except for light industrial or light industrial/commercial zones where the barbed and razor wire shall be placed on security fences at a minimum height of six feet from the ground. No portion of any barbed or razor wire located on a security fence shall extend into the right-of-way. (Ord. 1539 §30, 2019; Ord. 1480 §10, 2015).

Chapter 16.39
LIGHT INDUSTRIAL/COMMERCIAL DISTRICT

16.39.010 Intent. SHARE

It is the intent of this chapter to:

A. Provide for the development of areas in which certain types of industrial activities may be located to promote job generation consistent with the Economic Development Element of the Lacey Comprehensive Land Use Plan.

B. Implement the policies of the Comprehensive Land Use Plan for light industrial/commercial areas in the Hawks Prairie Planning Area.

C. Mandate that an essential consideration in review of development in the light industrial/commercial zone will be the overall impact to road infrastructure and the impact on the accommodation of other uses on the city road network. Particular attention must be paid to impacts that could discourage retail commercial development because of road capacity and level of service at key intersections.

D. Prohibit uses which ~~are not primarily conducted indoors, or~~ involve hazardous materials, or truck terminals or cross dock facilities and result in significant heavy truck traffic. These uses are generally considered heavy industrial uses under this title and are not appropriate for this designation.

E. Recognize that an essential aspect of this zone is the need to create and maintain a quality of development that attracts further investment in the light industrial/commercial zoning district and surrounding zoning districts. Consequently, the site activities and structures should be regulated within this zone including a design review element.

F. Permit in the same areas such commercial uses as may be compatible with the industrial activities.

G. Protect light industrial/commercial areas from other uses which may interfere with the purpose and efficient functioning of said areas.

H. Protect living areas from adverse or damaging impact of any kind emanating or resulting from activities in the light industrial/commercial areas.

I. Provide criteria for the location and standards for the development of said areas. (Ord. 1264 §3 2006; Ord. 583 §2.23(A), 1980).

16.39.020 Permitted uses. SHARE

A. The uses allowed in this district are limited to those necessary for a healthy and vibrant employment zone that promote manufacturing job generation or commercial development and occupying a building with a footprint no larger than a total of two hundred thousand square feet in size. A use must meet the intent of the zone as stated in LMC 16.39.010 and be described in the following portions of this subsection in order to be permitted. Types of uses permitted in the light industrial/commercial district subject to satisfying the intent of the zone may include:

1. Light industrial activities involving the manufacture, repair, servicing or sale of goods or products which can be performed with minimal adverse impact on, and pose no special hazard to, the environment and the community. Such goods or products may include, but are not limited to:

    a. Mechanical, automotive, marine and contractors' or builders' equipment and supplies;

    b. Electrical and electronic equipment or products;

2. Light industrial activities involving the assembly of manufactured products and processing of materials. Such products may include, but are not limited to:

    a. Sheet metal, cans, cable;

    b. Cloth, paper;

    c. Commercial bakery goods;

    d. Cosmetics;

    e. Dairy products, and other agricultural commodity and processing, except slaughtering, and except where such activities generate nuisance characteristics likely to impact surrounding property;

    f. Scientific, medical and precision instruments and equipment;

3. Other uses:

a. Warehousing and distribution facilities and storage of equipment, commodities and products;

b. Laundry and dry cleaning plants;

c. Mineral extraction subject to Chapter 16.45 LMC;

d. Accessory uses clearly subordinate to, and an integral part of, the primary use of the property (e.g., plant cafeteria, recreation area);

e. Mail carrier services that predominantly utilize smaller trucks, such as U.S. Mail facilities, United Parcel Service, Federal Express and other similar services;

f. Urban agricultural uses as provided for and limited under Chapter 16.21 LMC;

e. Outdoor storage

4. Existing buildings that have a footprint larger than two hundred thousand square feet shall be considered in compliance with this section based upon mitigation under previous approvals.

B. General commercial uses that are compatible with adjacent uses in this zone and sometimes considered heavier commercial uses that may not be compatible with uses in other zones including:

1. Building material sales, lumber yards, hardware and garden materials;

2. Auto supply stores;

3. Car washes and gas and service stations;

4. Automotive repair;

5. Used good retail stores;

6. Wholesale sales;

7. General retail sales;

8. Automobile sales;

9. Servicing of equipment;

10. Building contractors and staging for contracting business provided all equipment stored outside is effectively screened from adjacent properties and road right-of-way;

11. Campers, trailers and manufactured home sales;

12. Boat and marine equipment sales;

13. Farm equipment supplies;

14. Eating and drinking establishments;

15. Commercial recreation;

16. Recycling;

17. Business, professional and personal services (e.g., banks, accounting services, barber shops);

18. Motels;

19. Taxidermy;

20. Veterinary clinics (limited to small animals);

21. General retail activity;

22. Living or residential quarters as an accessory use such as guards' quarters in large establishments where such quarters are customarily provided for security and/or insurability of the premises;

23. Firefighters' sleeping quarters in fire houses.

C. Similar, related or compatible uses permitted, and criteria for determination of similarity, relatedness or compatibility, include:

1. Uses similar to, or related to, or compatible with those listed or described in subsection A of this section are permitted upon a finding by the enforcing officer and/or the site plan review committee that a proposed use does not conflict with the intent of this chapter or the policies of the Comprehensive Land Use Plan.

2. The criteria for such finding of similarity, etc., shall include but not be limited to the following:

a. The proposed use is appropriate in this area;

b. The development standards for permitted uses can be met by the proposed use;

c. The public need is served by the proposed use;

d. The use meets expectations of the Comprehensive Land Use Plan, Transportation Plan, and Economic Development Element.

D. Conditional Uses Permitted: Conditional uses may be considered as provided for in Chapter 16.66 LMC, provided all applicable standards necessary to mitigate identified impacts are satisfied.

1. For a conditional or special use to be approved it must be shown that the use would meet the goals of the Comprehensive Land Use Plan, the Transportation Plan, the Economic Development Element, and would promote higher job generation or other significant benefits to the Lacey community.

2. As a conditional use the city may consider administrative offices or other facilities of governmental institutions. However, before the city approves such use, it must be demonstrated the use is complementary to adjacent light industrial or commercial uses, enhances the marketability of the light industrial/commercial zone and will not adversely impact the city's economic development strategies for the zone.

E. On-site hazardous waste treatment and storage facilities as an accessory use to any activity generating hazardous waste and lawfully allowed in this zone; provided, that such facilities meet the state siting criteria adopted pursuant to the requirements of RCW 70.105.210. (Ord. 1539 §86, 2019; Ord. 1395 §5, 2012; Ord. 1368 §35, 2011; Ord. 1264 §4, 2006; Ord. 1220 §40, 2004; Ord. 1192 §145, 2002; Ord. 835 §9, 1988; Ord. 583 §2.23(B)(1-3), 1980).

Chapter 16.80
LANDSCAPING REQUIREMENTS

16.80.030 Special requirements. SHARE

A. The following uses require Type I landscaping on all sides when located above ground and not housed within a building or accessory to another use, and if located outside a public right-of-way:

1. Utility substation

2. Sewage pumping station

3. Water distribution facility

4. Communication relay station.

B. Wherever outdoor storage is proposed, a minimum fifteen-foot buffer area of Type I landscaping shall be provided along the property boundary between the site and any public streets or adjacent residentially zoned land. A minimum eight-foot buffer area of Type II landscaping shall be provided along the property boundary between the site and any private streets or non-residentially zoned land. Alternative configurations may be considered through the design review process, provided the proposed treatment minimizes negative visual and compatibility impacts.

1. All areas designated for outdoor storage must be paved with asphalt and be compliant with the current City of Lacey Stormwater Design Manual.

CB. Whenever a non-residential activity is proposed adjacent to a residential zone or use a minimum fifteen-foot buffer area of Type I landscaping shall be provided along the property boundary between the uses. Alternative configurations may be considered through the design review process, provided the proposed treatment minimizes negative visual and compatibility impacts.

DC. The following uses require Type III landscaping along the street frontage and throughout the required front yard area and Type II landscaping between the required front yard area and improvements on the property and along interior property lines unless a more stringent requirement is specifically identified in a land use district:

1. Church.

2. Commercial or public parking lot or structure not serving a primary use.

3. Government service building.

4. Community club.

5. School.

6. Hospital.

ED. An area around the base of each utility pole, groundmounted sign or similar fixtures must be landscaped to improve the overall appearance of the area. This landscaping must include vegetation and

may include other materials and components such as brick or concrete bases, planter boxes, or decorative framing. All refuse storage container areas shall be constructed and landscaped in accordance with Tables 16T-24 and 16T-25.

FE. In front yard areas required to be landscaped under city requirements, a minimum of sixty percent of the required area shall be landscaped with natural plant materials. This may include grass or other ground cover, trees, shrubs, and other permitted plant materials. Planting areas shall be designed and constructed in a manner that will make possible normal maintenance such as mowing and watering. (Ord. 1310 §50, 2008; Ord. 1220 §53, 2004; Ord. 1024 §50, 1995; Ord. 965 §§12 and 13, 1993; Ord. 871 §2 (part), 1989).

Version 2

Chapter 16.39
LIGHT INDUSTRIAL/COMMERCIAL DISTRICT

16.39.010 Intent. SHARE

It is the intent of this chapter to:

A. Provide for the development of areas in which certain types of industrial activities may be located to promote job generation consistent with the Economic Development Element of the Lacey Comprehensive Land Use Plan.

B. Implement the policies of the Comprehensive Land Use Plan for light industrial/commercial areas in the Hawks Prairie Planning Area.

C. Mandate that an essential consideration in review of development in the light industrial/commercial zone will be the overall impact to road infrastructure and the impact on the accommodation of other uses on the city road network. Particular attention must be paid to impacts that could discourage retail commercial development because of road capacity and level of service at key intersections.

D. Prohibit uses which ~~are not primarily conducted indoors, or~~ involve hazardous materials, or truck terminals or cross dock facilities and result in significant heavy truck traffic. These uses are generally considered heavy industrial uses under this title and are not appropriate for this designation.

E. Recognize that an essential aspect of this zone is the need to create and maintain a quality of development that attracts further investment in the light industrial/commercial zoning district and surrounding zoning districts. Consequently, the site activities and structures should be regulated within this zone including a design review element.

F. Permit in the same areas such commercial uses as may be compatible with the industrial activities.

G. Protect light industrial/commercial areas from other uses which may interfere with the purpose and efficient functioning of said areas.

H. Protect living areas from adverse or damaging impact of any kind emanating or resulting from activities in the light industrial/commercial areas.

I. Provide criteria for the location and standards for the development of said areas. (Ord. 1264 §3 2006; Ord. 583 §2.23(A), 1980).

16.39.020 Permitted uses. SHARE

A. The uses allowed in this district are limited to those necessary for a healthy and vibrant employment zone that promote manufacturing job generation or commercial development and occupying a building with a footprint no larger than a total of two hundred thousand square feet in size. A use must meet the intent of the zone as stated in LMC 16.39.010 and be described in the following portions of this subsection in order to be permitted. Types of uses permitted in the light industrial/commercial district subject to satisfying the intent of the zone may include:

1. Light industrial activities involving the manufacture, repair, servicing or sale of goods or products which can be performed with minimal adverse impact on, and pose no special hazard to, the environment and the community. Such goods or products may include, but are not limited to:

   a. Mechanical, automotive, marine and contractors' or builders' equipment and supplies;

   b. Electrical and electronic equipment or products;

2. Light industrial activities involving the assembly of manufactured products and processing of materials. Such products may include, but are not limited to:

   a. Sheet metal, cans, cable;

   b. Cloth, paper;

   c. Commercial bakery goods;

   d. Cosmetics;

   e. Dairy products, and other agricultural commodity and processing, except slaughtering, and except where such activities generate nuisance characteristics likely to impact surrounding property;

   f. Scientific, medical and precision instruments and equipment;

3. Other uses:

   a. Warehousing and distribution facilities and storage of equipment, commodities and products;

   b. Laundry and dry cleaning plants;

c. Mineral extraction subject to Chapter 16.45 LMC;

d. Accessory uses clearly subordinate to, and an integral part of, the primary use of the property (e.g., plant cafeteria, recreation area);

e. Mail carrier services that predominantly utilize smaller trucks, such as U.S. Mail facilities, United Parcel Service, Federal Express and other similar services;

f. Urban agricultural uses as provided for and limited under Chapter 16.21 LMC;

e. Outdoor storage, subject to the requirements of LMC 16.39.093.A.

4. Existing buildings that have a footprint larger than two hundred thousand square feet shall be considered in compliance with this section based upon mitigation under previous approvals.

B. General commercial uses that are compatible with adjacent uses in this zone and sometimes considered heavier commercial uses that may not be compatible with uses in other zones including:

1. Building material sales, lumber yards, hardware and garden materials;

2. Auto supply stores;

3. Car washes and gas and service stations;

4. Automotive repair;

5. Used good retail stores;

6. Wholesale sales;

7. General retail sales;

8. Automobile sales;

9. Servicing of equipment;

10. Building contractors and staging for contracting business provided all equipment stored outside is effectively screened from adjacent properties and road right-of-way;

11. Campers, trailers and manufactured home sales;

12. Boat and marine equipment sales;

13. Farm equipment supplies;

14. Eating and drinking establishments;

15. Commercial recreation;

16. Recycling;

17. Business, professional and personal services (e.g., banks, accounting services, barber shops);

18. Motels;

19. Taxidermy;

20. Veterinary clinics (limited to small animals);

21. General retail activity;

22. Living or residential quarters as an accessory use such as guards' quarters in large establishments where such quarters are customarily provided for security and/or insurability of the premises;

23. Firefighters' sleeping quarters in fire houses.

C. Similar, related or compatible uses permitted, and criteria for determination of similarity, relatedness or compatibility, include:

1. Uses similar to, or related to, or compatible with those listed or described in subsection A of this section are permitted upon a finding by the enforcing officer and/or the site plan review committee that a proposed use does not conflict with the intent of this chapter or the policies of the Comprehensive Land Use Plan.

2. The criteria for such finding of similarity, etc., shall include but not be limited to the following:

a. The proposed use is appropriate in this area;

b. The development standards for permitted uses can be met by the proposed use;

c. The public need is served by the proposed use;

d. The use meets expectations of the Comprehensive Land Use Plan, Transportation Plan, and Economic Development Element.

D. Conditional Uses Permitted: Conditional uses may be considered as provided for in Chapter 16.66 LMC, provided all applicable standards necessary to mitigate identified impacts are satisfied.

1. For a conditional or special use to be approved it must be shown that the use would meet the goals of the Comprehensive Land Use Plan, the Transportation Plan, the Economic Development Element, and would promote higher job generation or other significant benefits to the Lacey community.

2. As a conditional use the city may consider administrative offices or other facilities of governmental institutions. However, before the city approves such use, it must be demonstrated the use is complementary to adjacent light industrial or commercial uses, enhances the marketability of the light industrial/commercial zone and will not adversely impact the city's economic development strategies for the zone.

E. On-site hazardous waste treatment and storage facilities as an accessory use to any activity generating hazardous waste and lawfully allowed in this zone; provided, that such facilities meet the state siting criteria adopted pursuant to the requirements of RCW 70.105.210. (Ord. 1539 §86, 2019; Ord. 1395 §5, 2012; Ord. 1368 §35, 2011; Ord. 1264 §4, 2006; Ord. 1220 §40, 2004; Ord. 1192 §145, 2002; Ord. 835 §9, 1988; Ord. 583 §2.23(B)(1-3), 1980).

16.39.030 Prohibited uses. SHARE

Uses other than those identified or described in LMC 16.39.020 are prohibited, including but not limited to:

A. All buildings over two hundred thousand square feet in size.

B. All uses or activities which would require extraordinary equipment, devices or technology for the control of odors, dust, fumes, smoke, noise or other wastes and/or by-products which, if uncontrolled, would contaminate the environment to a degree unacceptable by contemporary community standards, or which would exceed the acceptable limits established by competent and recognized public and quasi-public agencies for the protection of industrial and/or environmental health.

C. Examples of prohibited uses are:

1. Animal slaughtering;

2. Care and/or sale of livestock, poultry or similar animals;

3. Storage, manufacture or sale of highly volatile or otherwise extremely hazardous substances or materials;

4. Any heavy industrial activity including truck terminals, cross dock facilities or any structure designed for similar type use. (Ord. 1264 §5, 2006: Ord. 691 §19, 1984: Ord. 583 §2.23(B)(4), 1980).

16.39.040 Environmental performance standards. SHARE

It shall be the responsibility of the operator and/or the proprietor of any permitted use to provide such reasonable evidence and technical data as the enforcing officer may require to demonstrate that the use or activity is or will be in compliance with the environmental performance standards of Chapter 16.57 LMC.

Failure of the enforcing officer to require such information shall not be construed as relieving the operator and/or the proprietor from compliance with the environmental performance standards of this title. (Ord. 583 §2.23(C)(1), 1980).

16.39.041 Master SPR Requirement. SHARE

When multiple buildings are located on a single parcel a master site plan shall be required. The master site plan will be reviewed through the site plan review requirements of Chapter 16.84 LMC. The review shall consider requirements similar to the city land division standards in Chapter 15.12 LMC, landscaping requirements of Chapter 16.80 LMC and design review requirements of Chapter 14.23 LMC. The site plan review committee shall determine whether the standards referenced are appropriate for the project being reviewed. (Ord. 1264 §6, 2006).

16.39.050 Site requirements. SHARE

Minimum site requirements shall be as follows:

A. Lot area, ten thousand square feet.

B. Lot width, one hundred feet.

C. Side yard setback, fifteen feet unless the property abuts residentially zoned property, in which case the side yard setback shall be twenty-five feet.

D. Rear yard setback, fifteen feet unless the property abuts residentially zoned property, in which case the rear yard setback shall be twenty-five feet.

E. Front yard setback, fifteen feet. (Ord. 1130 §11, 2000; Ord. 647 §3, 1982; Ord. 618 §8, 1981; Ord. 583 §2.23(C)(2)(a), 1980).

16.39.060 Building allowance. SHARE

Maximum building allowance shall be as follows:

A. Development coverage, eighty percent of site;

B. Height:

Lot Area	Max. Bldg. Height
Less than 1 acre	35 feet
1 to 2 acres	45 feet
More than 2 acres	60 feet

C. Floor area, one square foot of floor area per foot of land area. (Ord. 1044 §17, 1996; Ord. 583 §2.23(C)(2)(b), 1980).

16.39.070 Off-street parking. SHARE

Off-street parking shall be provided in accordance with Chapter 16.72 LMC. (Ord. 583 §2.23(C)(2)(c), 1980).

16.39.080 Landscaping. SHARE

All requirements of Chapter 16.80 LMC shall be satisfied. (Ord. 1496 §78, 2016; Ord. 1220 §41, 2004; Ord. 1044 §§18-19, 1996; Ord. 647 §4, 1982; Ord. 583 §2.23(C)(2)(d), 1980).

16.39.090 Stormwater runoff. SHARE

Stormwater management is required and shall comply with the current City of Lacey Stormwater Design Manual and shall be subject to the city's review and approval, and shall, moreover, comply with Chapter 15.22 LMC pertaining to community facilities. (Ord. 1496 §79, 2016; Ord. 1380 §1, 2012; Ord. 583 §2.23(C)(2)(e), 1980).

16.39.093 Design review. SHARE

All industrial and commercial buildings and uses shall comply with design review standards of Chapter 14.23 LMC. Design review shall promote the development of an attractive and functional light industrial site and contribute to the city's economic development by promoting healthy, vibrant and attractive industrial areas that will attract additional private investment. (Ord. 1264 §7, 2006).

A. Specific Design Standards for Outdoor Storage

In addition to the standards of Chapter 14.23 LMC, outdoor storage shall be subject to the following standards.

1. Landscaping. A minimum fifteen-foot buffer area of Type I landscaping shall be provided along the property boundary between the site and any public streets or adjacent residentially zoned land. A minimum eight-foot buffer area of Type II landscaping shall be provided along the property boundary between the site and any private streets or non-residentially zoned land.

2. Fencing: Site obscuring fencing is required for industrial outdoor storage uses. Acceptable fencing material includes masonry or chain link fencing with privacy slats. All required fencing along public right of ways must be located at the interior boundary of required landscape buffers to allow for landscaping elements to screen the fence.

3. Paving. All areas designated for outdoor storage must be paved with asphalt and be compliant with LMC 16.39.090.

4. Alternative configurations or material may be considered through the design review process, provided the proposed treatment minimizes negative visual and compatibility impacts.

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Samira

CITY OF LACEY
Community & Economic Development Department
420 College Street SE
Lacey, WA 98503
(360) 491-5642

RECEIVED
OCT 03 2019
BY

OFFICIAL USE ONLY	
CASE NUMBER:	19-289
RELATED CASE NUMBERS:	
PLANNER ASSIGNED:	
PW ASSIGNED:	

PRESUBMISSION CONFERENCE REQUEST FORM

ONE WEEK PRIOR TO REQUESTED DATE, SUBMIT VIA EMAIL TO PLANNING@CI.LACEY.WA.US, OR TO LACEY CITY HALL. NO FEE IS REQUIRED. SUBMISSION SHOULD INCLUDE COMPLETED APPLICATION, SITE PLAN DRAWING, VICINITY MAP, AND TRAFFIC GENERATION WORKSHEET.

APPLICANT: QFC - Quality Food Centers, Inc.
... c/o Brian Peterson, Regional Construction Manager

ADDRESS: 3701 South Norfolk Street, Suite 301 **CITY:** Seattle **STATE:** WA **ZIP:** 98115

PHONE NUMBER: (206) 808-0303 **EMAIL:** brian.peterson@kroger.com

REPRESENTATIVE: Robert McNeill, Senior Project Planner,
Barghausen Consulting Engineers, Inc.

ADDRESS: 18215 72nd Avenue South **CITY:** Kent **STATE:** WA **ZIP:** 98032

PHONE NUMBER: (425) 656-1061 (Direct)
(425) 251-6222 (Main Office) **EMAIL:** bmcneill@barghausen.com

PROJECT ADDRESS: 4775 Whitman Lane SE

ASSESSOR'S TAX PARCEL NUMBER(S): 70220000700 and 70220001301 (BSP)

BRIEF DESCRIPTION OF PROJECT: Construct a fuel center with a fuel canopy (3,956 SF), with five (5) multi-product dispensers (MPDs) and ten (10) vehicle fueling positions (VFPs), a cashiers kiosk (112 SF) and two (2) underground storage tanks (USTs) in the initial phase. Maximum build-out would see an expanded fuel canopy (5,418 SF) with seven (7) MPDs and fourteen (14) VFPs; the kiosk would remain unchanged. Site improvements proposed would include landscaping, asphalt paving, exterior lighting and signage.

TOTAL ACREAGE: .9 Acres **TOTAL SQ. FT OF BLDG:** 5,418 SF (Max Canopy)
112 SF (Kiosk) **ZONING:** GC

PROPOSED LAND USE: ( ) SINGLE-FAMILY ( ) MULTI-FAMILY ( ) INDUSTRIAL DUPLEX (X) COMMERCIAL ( ) M.H. PARK

EXISTING ACCESS: via Whitman Lane **PROPOSED ACCESS:** No Change

INDICATE PREFERENCE FOR A MEETING DATE AND TIME: 10/23 11 or 11:30

(MEETINGS ARE HELD THE 2ND AND 4TH WEDNESDAY OF EACH MONTH) **DATE:** ASAP **TIME:** Late AM / Early PM

A presubmission conference is an opportunity for the developer and/or their representative to meet with staff to discuss preliminary studies or sketches of the proposed project. At the conference, staff will make available, pertinent information relating to the proposed development. The intent is to identify and/or eliminate as many potential problems as possible in order for the project to be processed without delay. The conference should take place prior to detailed work by an engineer or surveyor; however, the site drawing submitted, should have sufficient information to allow for staff review. Discussion topics will include such things as Comprehensive Plan, Street Plan, Storm Run Off & Retention, Shoreline Master Program, Zoning, Availability of Water/Sewer, Development Concepts, other requirements and permits, and the environmental impact. If the applicant owns adjacent land, the possibilities of future development will be discussed. Written information regarding process, specific requirements & related issues, will be furnished at the meeting. Staff will typically visit the site prior to the meeting and may enter the property if deemed necessary to gain a full understanding of the project.

Leah Bender

From: Bob McNeill <bmcneill@barghausen.com>
Sent: Wednesday, October 16, 2019 3:17 PM
To: CD-Planning
Subject: Additional Plans for Review ... QFC Fuel Center / BCE #15421.3
Attachments: 15421-A --- REV-PRLM-SITE PLAN.PDF; 15421-B --- REV-PRLM-GRADING PLAN.PDF

External Email Warning! Use caution before clicking links or opening attachments.

Leah / Samra ...
The attached plans represent a different, more recent option for the proposed QFC Fuel Center which provides for the full 7-MPD layout, but rotated 90* and oriented towards the western property line. The preliminary grading plan also provides a more detailed look at the proposed plan and the site's topography, plus noting easements.

Please do what you can to disseminate these plans to the reviewers so they can be discussed at next week's pre-submission meeting. Thank you!

Robert McNeill | Senior Planner
Office: 425-251-6222 | Direct: 425-656-1061 | Mobile: 206-396-8598
Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South, Kent, WA 98032
www.barghausen.com

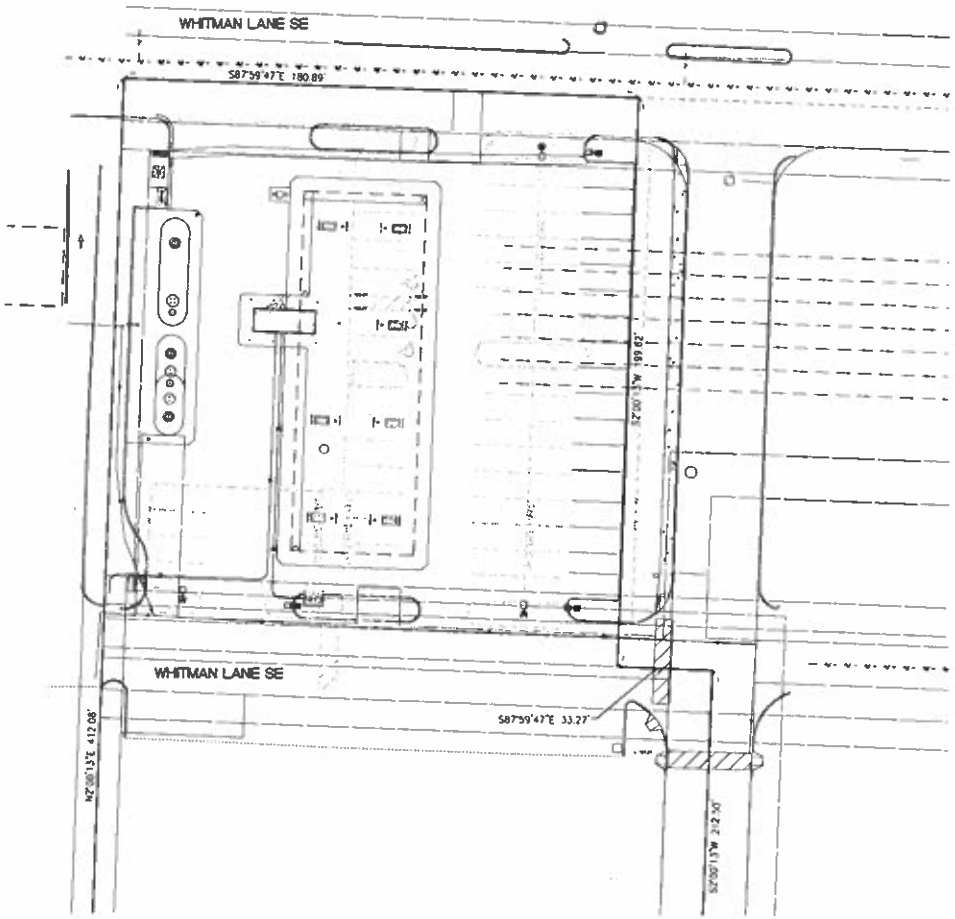
SITE IMPROVEMENT PLAN

FRED MEYER FUEL

STORE # - LACEY, WASHINGTON

1" = 20'

0 10 20 40



LEGEND

- PROPOSED ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- SAWCUT
- EXISTING CONCRETE CURB
- NEW CONCRETE CURB
- NEW COMMUNICATION CONDUIT — C —
- NEW U/G POWER — P —
- EXISTING WATER — W —
- EXISTING POWER — P —
- NEW CONC. SWALE
- EXISTING TELEPHONE — T —
- NEW TELEPHONE SERVICE — T —
- EXISTING STORM — S —
- EXISTING FIRE HYDRANT

INSPECTION NOTE:

CONTRACTOR SHALL CONTACT CITY OF LACEY BUILDING DEPARTMENT (360-491-5642) TO SCHEDULE THE NECESSARY FIRE INSPECTIONS AND TO WITNESS ALL RELOCATED PLOTS. PRIOR TO APPROVAL FOR USE, THE LACEY FIRE CODE OFFICIAL SHALL INSPECT THE INSTALLATION TO ASCERTAIN COMPLIANCE WITH APPLICABLE FIRE CODE REQUIREMENTS.

PROJECT SIGNAGE SCHEDULE

NOTE: ALL SIGNS UNDER SEPARATE PERMIT

- (A) NEW LOGO AND "FRED MEYER" TEXT (19 S.F.)
- (B) NEW PRICE SIGN (60 S.F.)
- (C) NEW LOGO SYMBOL (6 S.F.)
- (D) NEW FREE-STANDING ID SIGN (BY OTHERS)

CONSTRUCTION CALL OUTS

1. (2) 51'-4.5" OVERLAPPING, SPLIT PUMP ISLAND CANOPIES WITH 5 MPD'S. SEE ARCHITECTURAL AND CANOPY PLANS FOR DETAILS
2. 102'-3.5" REINFORCED CONCRETE DIESEL SLAB BENEATH PUMP ISLAND CANOPY. REFER GRADING PLAN (C4) AND DETAIL SHEET (D8) FOR SLAB GRADES AND DIMENSIONS. SEE SHT. A1 FOR CONTROL JOINTS AND SPECIFICATIONS
3. (1) 10,000/8,000 GALLON DUAL COMPARTMENT AND (1) 20,000 GALLON UNDERGROUND GASOLINE STORAGE TANKS PER TANK PLANS
4. REINFORCED CONCRETE SLAB ABOVE UNDERGROUND GASOLINE STORAGE TANKS SEE TANK PLANS FOR DETAILS
5. PREFABRICATED KIOSK ENCLOSURE WITH MILLWORK PROVIDED BY FREY WOSS. SEE ARCHITECTURAL PLAN A1 FOR KIOSK FOUNDATION AND EQUIPMENT DETAILS
6. NEW CONCRETE CURB PER DETAIL 2/C5
7. ASPHALT PAVEMENT SECTION PER DETAIL 1/C5
8. NEW LANDSCAPING. SEE LANDSCAPE AND IRRIGATION PLANS FOR DETAILS. RIGHT-OF-WAY TREES SHALL BE APPROVED BY LACEY PUBLIC WORKS.
9. INSTALL (1) SELF SERVE AIR/WATER AND TELEPHONE UNIT MOUNTED ON 4'-0" x 6'-0" x 6" CONCRETE MOUNTING PAD. RUN (1) 3/4" CONDUIT TO KIOSK FOR POWER. SEE DETAIL, SHEET A3.0
10. CONCRETE CURB AND GUTTER PER DETAIL 5/C5
11. STORAGE TANK VENT STACK PER TANK DRAWINGS AND VENT RISER PAD PER DETAIL 3/C6.
12. THROUGH RAMP PER DETAIL 5/C5.
13. CONCRETE GUTTER SWALE PER DETAIL 4/C5
14. NEW BOLLARDS. SEE ARCHITECTURAL SHEET A3 FOR DETAIL. SEE SHEET A1.0 FOR LOCATIONS
15. STORMWATER RUNOFF WATER QUALITY STRUCTURE. SEE SHEET C4 FOR CONSTRUCTION CALLOUTS
16. STOP BAR PER DETAIL 11/C5 AND R1 STOP SIGN
17. 6' WIDE CONCRETE SIDEWALK WITH THICKENED EDGE PER DETAIL 7/C5
18. ADA CURB RAMP PER DETAIL 11/C5
19. PAINTED ACCESS AISLE USING 4" WIDE YELLOW STRIPES AT 2' O.C./45° ANGLE
20. INSTALL SPILL RESPONSE INFORMATIONAL SIGN ON FRONT OF EACH DISPENSER (10 TOTAL) COORDINATE SIGN INFORMATION WITH DAN HERMANN (FRED MEYER) AT 503-797-3512
21. ADA VAN ACCESSIBLE PARKING STALL AND SIGN. SIGN TO BE INSTALLED BEHIND SIDEWALK. SEE DETAIL SHEET 6/C6.
22. (2)-2" COMMUNICATION CONDUITS W/ PULL TAPE FROM KIOSK FOR CONNECTION TO MAIN FRED MEYER STORE. COORDINATE WITH KROGER PM FOR EXACT LOCATION OF ENTRY POINT AT STORE. SEE DETAIL 7/C6 FOR BUILDING PENETRATION DETAIL AND SHEET SL-1.0 FOR CURRENT SCHEDULE
23. PROVIDE (2) 3/4" CONDUITS FROM KIOSK TO (E) FREE-STANDING I.D. SIGN AND (1) 3/4" CONDUIT FOR PLAZA LIGHTING AND RECEPTACLES. SEE ELECTRICAL PLANS FOR CONDUIT/WIRING SPECS
24. INSTALLATION OF CONDUITS SHALL BE ACCOMPLISHED BY BORING (SEE SCHEDULE NOTE 8, SHEET E-1.0) UNLESS OTHERWISE DIRECTED BY KROGER PM. CONTRACTOR TO PROVIDE BID ALTERNATE FOR OPEN CUT/TRENCHING ALONG ALIGNMENT AS SHOWN ON SITE ELECTRICAL PLAN. FIELD LOCATE EXISTING UTILITIES PRIOR TO TRENCHING TO AVOID CONFLICT
25. PROVIDE (2) 3/4" CAPPED CONDUITS FROM KIOSK TO VENT RISER SUPPORT STRUCTURE (FOR FUTURE USE)
26. INSTALL 3" CONDUIT AND WIRING FROM EXISTING TRANSFORMER TO KIOSK FOR SECONDARY POWER SERVICE. SEE ELECTRICAL PLANS. COORDINATE WITH PGE ON CONNECTION AT TRANSFORMER VAULT.
27. 3/4" BLUE POLY PIPE WATER SERVICE.
28. CONTRACTOR SHALL FIELD CONFIRM EXISTING WATER SERVICE PRIOR TO CONSTRUCTION. DEMO EXISTING SERVICE BACK TO MAIN PER CITY REQMTS. AND RELOCATE 1" METER PER PLAN.
29. 1 1/2" WATER SERVICE CONNECTION (BY CITY AT OWNER'S EXPENSE). CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EX. MAIN AND PROVIDE EXCAVATION REQUIRED TO MAKE CONNECTION. TRENCHING AND BACKFILL BY CONTRACTOR
30. INSTALL 1-1/2" BLUE POLY PIPE WATER SERVICE TO METER BOX. ALL SERVICE INSTALLATIONS SHALL BE PER CITY OF LACEY STANDARDS. REFER TO DETAIL 6-2/C6 AND WATER NOTES ON SHEET C10
31. INSTALL NEW DOUBLE METER SERVICE PER CITY DETAIL 6-3/C9. INSTALL NEW 5/8" METER (DOMESTIC) AND RELOCATED 1" METER (IRRIGATION). FOR IRRIGATION BACKFLOW, SYSTEM DESIGN AND DETAILS BEYOND METER, SEE IRRIGATION PLANS
32. CITY APPROVED 5/8" DOMESTIC DOUBLE CHECK R.P. BACKFLOW ASSEMBLY IN PROTECTIVE ENCLOSURE PER CITY 6-6.1/C9. REFER TO IRRIGATION PLANS FOR IRRIGATION DOUBLE CHECK ASSEMBLY DETAILS.
33. STAMPED, FLUSH CONCRETE PEDESTRIAN CROSSWALK PER DETAIL 12/C5
34. SEE LANDSCAPE PLANS FOR PLAZA DETAILS.
35. SIDEWALK IN PUBLIC RIGHT-OF-WAY PER CITY STANDARD DETAIL NO. 4-9 (DETAIL 8/C8) AND DETAIL 4-10, SHEET C9
36. DIRECTIONAL PAVEMENT ARROW PER DETAIL 8/C5
37. INSTALL 12" WIDE PRECAST CONCRETE DUAL FACED SLOPED MOUNTABLE CURB PER WSDOT STD. PLAN F-10.64.02/SHEET C9 (TRAFFIC YELLOW)
38. CITY APPROVED 5/8" BACKFLOW DEVICE FOR AIR/WATER UNIT, IN PROTECTIVE ENCLOSURE
39. WOODEN HEADER AT EXISTING TREE, PER CITY DETAIL 4-20, SHEET C9

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

OFC FUEL CENTER - #126 LACEY, WA

OFC
Quality Food Centers
OFC Project Manager
Address
Phone
Fax

Kroger
The Kroger Co.
Fuel Center Development
Address
Phone
Fax

REVISIONS

No.	DESCRIPTION	DES. BY	DRAWN BY	DATE

Project #	45471
Store #	0126
Designed By	MJH
Drawn By	MDC
Checked By	JH
Date	10.20.12
Scale	as shown
Dwg. File	1100a2-c1.dwg
Model	
Address	6775 Whitman Lane SE, Lacey, WA

CIVIL
SITE IMPROVEMENT PLAN
OFC
FUELING FACILITY

Drawing No.:
C3 of 10

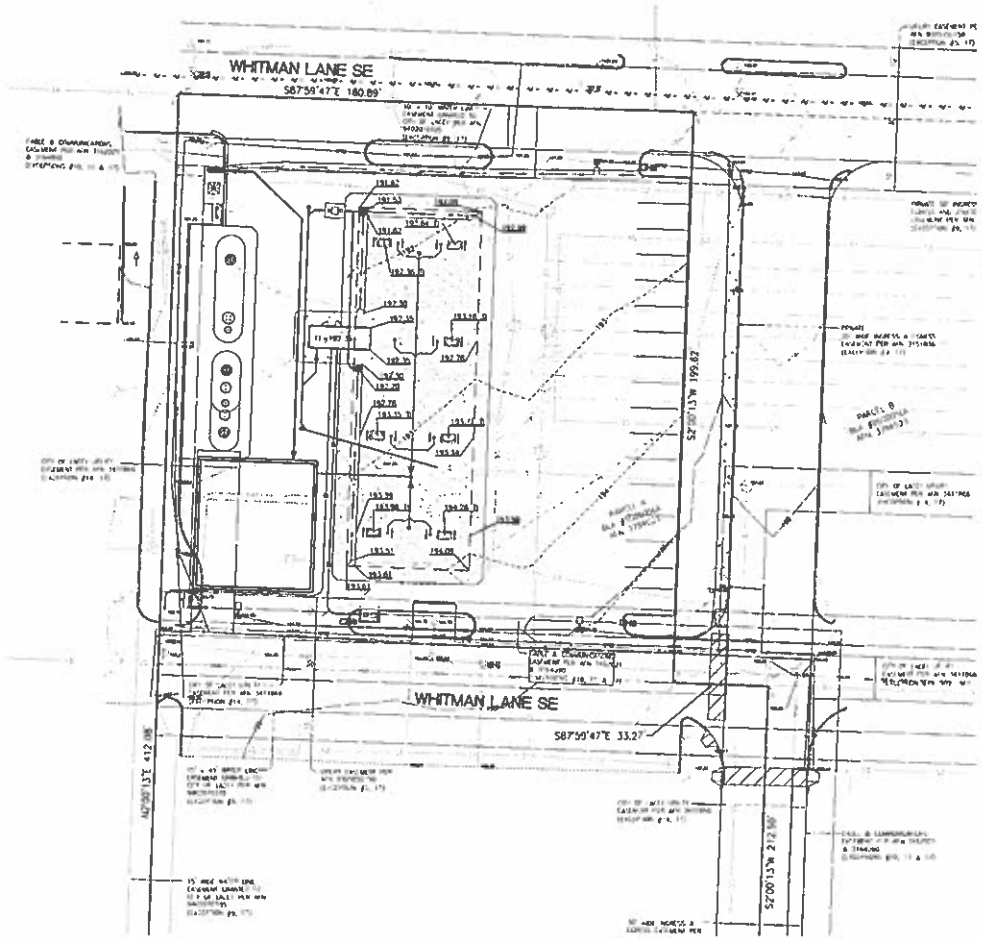
PRELIMINARY GRADING AND STORM DRAINAGE PLAN

QFC FUEL

STORE #126 - LACEY, WASHINGTON

1" = 20'

0 10 20 40



LEGEND

PROPOSED ASPHALT PAVEMENT	
PROPOSED CONCRETE PAVEMENT	
EXISTING CONCRETE CURB	
NEW CONCRETE CURB	
NEW CONC. SWALE	
EX. U/G POWER	
EX. TELEPHONE	
EXISTING STORM PIPE	
EXISTING SANITARY SEWER PIPE	
EXISTING WATER LINE	
PROPOSED SANITARY SEWER	SS
PROPOSED STORM DRAINAGE	SD
PROPOSED SEWER/STORM CLEANOUT	
EXISTING GROUND SPOT ELEVATION	199.62
EXISTING GROUND CONTOUR	
PROPOSED FINISHED GRADE CONTOUR	200.0
PROPOSED FINISHED GRADE SPOT ELEVATION	199.5
PAVEMENT SWALE	
SURFACE FLOW DIRECTION	
PROPOSED DOWNSPOUT	DS
BACK OF SIDEWALK	BW
FLOW LINE	FL
MEET & MATCH EXISTING	ME
PROPOSED STORM DRAIN MANHOLE	

SURVEY DATA:

VERTICAL DATUM (City of Lacey)

CITY OF LACEY CONTROL POINT 98, BEING THE NORTH QUARTER CORNER OF SECTION 20, TOWNSHIP 18 NORTH, RANGE 01 WEST W.M. AND A 1.5" PIPE AND TACK IN CASE IN CENTERLINE OF SLATER-KINNEY ROAD. NGVD29 (CITY OF LACEY) ELEV= 200.356

HORIZONTAL DATUM (City of Lacey)

BASIS OF BEARING IS A LINE BETWEEN CITY OF LACEY MONUMENT IN CASE 88 AT THE NORTH QUARTER CORNER OF SECTION 20, T18N, R01W, W.M. AND LACEY 103 WHICH IS A MONUMENT IN CASE AT THE NORTH QUARTER CORNER OF SECTION 17 IN SAID TOWNSHIP AND RANGE, BEARING BETWEEN 2 MONUMENTS WAS HELD AS NORTH 02° 01' 49" EAST.

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY LOCATION, SIZE, AND TYPE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION ANY DISCREPANCIES SHALL BE REPORTED TO ENGINEER IMMEDIATELY
2. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION AND GRADING WORK
3. ALL SPOT ELEVATIONS ARE TO TOP OF FINISH SURFACE UNLESS NOTED OTHERWISE.
4. SEE 1/C4 FOR DETAILED CANOPY SLAB GRADES.
5. SEE NOTE (3) 1 ON EXISTING SLAB GRADE AT MANHOLES.
6. A REPRESENTATIVE FROM FILTERRA SHALL BE NOTIFIED AND PRESENT PRIOR TO INSTALLATION OF THE FILTERRA UNITS. THE REPRESENTATIVE SHALL PROVIDE THE CITY WITH DOCUMENTATION STATING THAT THE INSTALLATION OF THE FILTERRA UNITS HAS BEEN INSPECTED AND APPROVED BY SAID REPRESENTATIVE. THE CITY WILL NOT GRANT FINAL PUBLIC WORKS APPROVAL WITHOUT THE REQUIRED DOCUMENTATION. CHANGE SHALL BE REQUIRED ORDER TO OFFLOAD STRUCTURE
7. CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING EXCAVATION OF INFILTRATION GALLERY TO AVOID DISRUPTION OF EXISTING GROUND AT BOTTOM OF GALLERY. SOILS ENGINEER SHALL BE CONTACTED TO INSPECT BOTTOM OF EXCAVATION AND TO PERFORM INFILTRATION TESTING PRIOR TO COMMENCING WITH BACKFILL.
8. CONTRACTOR SHALL ADJUST UTILITY LIDS, AFFECTED BY CONSTRUCTION, TO NEW FINISH GRADES.

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

QFC FUEL CENTER - #126 LACEY, WA

QFC
Quality Food Centers
QFC Stores
2815 Eastlake Ave E
Seattle, WA 98102

Kroger
The Kroger Co.
Store No. 07-0126
1955 Mt. Vernon Rd SE
Atlanta, GA 30338-4037
Fax (770) 393-3490

STATE OF WASHINGTON
29527
REGISTERED PROFESSIONAL ENGINEER

REVISIONS

No.	DESCRIPTION	DES. BY	DRAWN BY	DATE

Project #	13421 Store #126
Designed By	HLH
Drawn By	RDC
Checked By	JH
Date	10.20.12
Scale	as shown
Dwg File	13482-a1.dwg
Model	

Address: 4775 WHITMAN LANE SE LACEY, WA

GRADING AND DRAINAGE PLAN QFC FUELING FACILITY

Drawing No.

C4 of 10

City of Lacey

DEPARTMENT OF PUBLIC WORKS
420 College Street S.E.
Lacey, WA 98503-1238
(360) 491-5600

COMMERCIAL TRAFFIC GENERATION WORKSHEET

Date: October 7, 2019

Project No.: TBD

Project Name: QFC Fuel Center

Parcel No.: 702200007000 and 70220001301

Project Address: 4755 Whitman Lane SE

Applicant's Name: Brian Peterson, QFC / Kroger Regional Construction Manager

Phone: (206) 808-0303

Applicant's Address: 3701 South Norfolk Street, Suite 301, Seattle WA 98115

Existing Use

Is there an existing use on the proposed project site:	☐ Yes	☒ No
Has the existing use been vacant for more than 18 months?	☐ Yes	☒ No
Will any of the existing buildings be demolished?	☐ Yes	☒ No

Please explain the current use, if any (type of business; business license number, if available; size in gross square feet; number of employees; hours of operation, etc.):

Current use onsite is parking for the adjacent commercial uses; including the QFC Food Center. After build-out, projected parking availability would remain sufficient to address current demand/utilization for adjacent uses.

© 2005 City of Lacey, Washington, USA

Proposed Use (Include Site Plan)

Commercial projects can cover a wide variety of land uses, not all uses are covered in the Trip Generation Manual. A private traffic engineer may be required for exceptional proposals. Please provide as much information as possible, if applicable to your development:

Project Site Gross Acres:	~ .9 Acres	Number of Gas Pumps / Fueling Positions:	7 / 14
Building Size Gross Square Feet:	5418+112 (canopy+kiosk)	Number of Drive-through Windows:	N/A
Number of Employees:	1 per shift	Number of Service Bays:	N/A
Number of Parking Stalls:	17 (w/5MPDs); 0 (w/7MPDs)	Number of Car Wash Stalls:	N/A
Number of Students / Children:	N/A	Number of Seats (Theaters, etc.):	N/A
Number of Rooms (Hotels, etc.):	N/A	Number of Courts / Fields / Tees:	N/A

Please explain the proposed use (type of business and all other information not provided above that you feel is relevant in determining traffic generation):

The proposed fuel center at build-out would consist of a maximum of seven (7) multi-product dispensers (MPDs), creating fourteen (14) vehicle fueling positions (VFPs), under a 5,418 SF fuel canopy, with a 112 SF cashier's kiosk. The current project calls for a smaller canopy (3,956 SF) with five (5) MPDs, creating ten (10) VFPs, with the same kiosk. The fuel center would require two (2) USTs (1/20,000-gallon and 1/18,000-gallon dual tank). Landscaping, asphalt paving, exterior lighting fixtures and canopy signage would be installed per Lacey requirements.

Typically, a large number of fuel customers purchase fuel during their shopping trip to the QFC grocery store; thus significantly minimizing new primary trips attributed to the fuel center.

I declare that I have completed this form and to the best of my knowledge and belief the above information is true and correct. I understand the City is relying on this information to accurately determine the traffic impacts from my development.

Signature _____ Date: October 2, 2019

Robert McNeill, Senior Planner, Barghausen Consulting Engineers, Inc.

For Official Use Only:

HTE Number: Approved for Traffic Division By:

Development Reviewer: Planner: _____

Land Use Code: Discounts Applied:

Total PM Peak Hour Trips: _____ New PM Peak Hour Trips: _____

Comments: _____

Calculated by: _____

© 2005 City of Lacey, Washington, USA

BARGHAUSEN

October 2, 2019
FedEx
(360) 491-5642

Ms. Samra Seymour
Associate Planner
City of Lacey
Department of Community Development
420 College Street S.E.
Lacey, WA 98503

RE: Pre-Submission Conference Request
Proposed QFC Fuel Center
4775 Whitman Lane S.E., Lacey, Washington 98513
QFC No. 126 / Our Job No. 15421

Ms. Seymour:

Per our telephone conversation, on behalf of our clients, Quality Food Centers, Inc. (QFC) and The Kroger Co., Barghausen Consulting Engineers, Inc. (Barghausen) is pleased to submit the requisite documentation to schedule a pre-submission conference reviewing the proposed development of a QFC Fuel Center at the location referenced above.

Submittal Package

In response to published submittal requirements, Barghausen is pleased to provide the following materials for your distribution and review. All plans are provided in 11- x 17-inch format. An electronic copy of this submittal package (PDF format) is also being transmitted to planning@ci.lacey.wa.us:

1. One (1) copy of each of the documents specified below:

    - Cover Letter detailing the submittal package and project scope
    - Pre-Submission Conference Request Form
    - Traffic Generation Worksheet
    - Preliminary Overall Site Plan, Sheet DD-1, in 11- x 17-inch format, providing an overall view of the site, the immediate vicinity, and environs (for general reference only)
    - Preliminary Overall Site Plan, Aerial View, providing a more visual reference of the project's precise location (for general reference only)
    - Preliminary Detailed Site Plan, Sheet DD-2, providing a detailed view of the project, outlining the current construction proposal (5 MPDs), and illustrating the proposed maximum build-out (7 MPDs).
    - Preliminary Detailed Site Plan, Sheet DD-2 (Demolition), providing a reference of the parking revisions (dashed lines) proposed for this project at maximum build-out.

Project Scope

The Applicant's proposal initially calls for the construction of a QFC Fuel Center with a 43- x 92-foot fuel canopy (3,956 square feet) and an 8- x 14-foot cashier's kiosk (112 square feet) covering five (5) multi-product dispensers (MPDs) and creating ten (10) vehicle fueling positions (VFPs). At maximum buildout, the project would feature a fuel canopy expanded to 43 x 126 feet (5,418 square feet), retaining the kiosk in its original location while adding dispensers and creating a fuel center with seven (7) MPDs and fourteen (14) VFPs. Subject to the initial success of the proposed fuel center, a firm date for future expansion remains undetermined. However, the Applicant believes the mutual interest of all parties is best served by considering this expansion during the initial entitlement process.

Using the 2015 International Building Code (IBC), the fuel canopy and kiosk would be categorized as Type II-B construction and classified as Class M occupancy. The initial construction would provide seventeen (17) parking stalls on site. At maximum buildout, these parking stalls would be eliminated to accommodate the expanded fuel canopy. The project will require the installation of two (2) underground storage tanks (USTs), one 20,000-gallon UST for the storage of regular unleaded fuel and one (1) 18,000-gallon split or dual UST (10,000/8,000 gallons each) divided between diesel and supreme unleaded fuel. Project details associated with proposed site improvements are discussed below and include canopy signage, asphalt paving, lot lights, an air/water unit, and utility connections.

a) Uses: The project is proposed for a site along Whitman Lane near the existing QFC retail store. No significant increase is projected in the amount of impervious surface on site. In addition to fuel transactions, only gasoline and convenience items (oil, washer fluid, soda, snacks, ice, etc.) are projected to be available for purchase from the kiosk.

b) Operating Hours: Subject to code restrictions, the QFC Fuel Center will be capable of operating 24 hours a day, 7 days a week. An attendant will be responsible for conducting cash and credit card transactions and monitoring fueling activities, including all fuel deliveries. In addition, the facility will be remotely supervised via the continual use of security cameras and the presence of automated alarm systems activated in the event of emergencies such as fire, detection, or breach of the inner or outer walls of the tanks and/or piping.

c) Signage: The preliminary signage proposal includes a freestanding pylon sign, plus the typical QFC Fuel Center sign package featuring two (2) 45-square foot, three-product price information signs placed on opposite sides of the fueling canopy and the name "QFC" (in illuminated channel letters) in two locations on the canopy's longer fascia. QFC is prepared to modify the standard sign package to fully comply with the City of Lacey's development regulations.

d) Storm and Sanitary Sewer Utilities: Stormwater management is proposed to separate the under canopy drive slab from the paved asphalt maneuvering areas surrounding the fuel canopy. Stormwater from beneath the fuel canopy is typically channeled into a stormwater conveyance system, pre-treated with an oil/water separator (typically 400- to 500-gallon capacity) and then discharged into the sanitary sewer.

e) Access: The project will utilize existing driveways to provide ingress/egress to adjacent public rights-of-way; no new driveways are proposed. We do not anticipate the project adversely impacting emergency services' access to existing commercial structures.

f) Traffic/Trip Generation: Based on studies conducted by The Kroger Co. and independent analysis of typical service station activity, the number of new primary trips generated by the QFC Fuel Center during both AM and PM peak periods is expected to be nominal. A trip generation assessment will

be included as part of the traffic study required by the City of Lacey and/or other jurisdictions supporting this conclusion based on ITE standards/methodology.

g) Parking Requirements: Given the automotive nature of the use, the proposed QFC Fuel Center will not require significant parking as employees are projected to share common parking areas used by QFC customers. However, the plan's initial phase calls for the retention of seventeen (17) parking spaces immediately adjacent to the Fuel Center.

Given the QFC Fuel Center's automotive-orientation and adjacent uses, new and/or expanded pedestrian access throughout the QFC Fuel Center should be discouraged and no adverse impacts on pedestrian or vehicular circulation have been identified at this stage of the project.

Questions

With the pre-submission conference, Barghausen is initiating formal feasibility for this project. As such, Barghausen respectfully requests City of Lacey staff provide answers and/or be prepared to discuss the following questions:

Planning:

1. Please confirm the City's land use entitlement and permitting processes and identify specific procedures and/or hearings unique to this project. Please provide a preliminary estimate of the timeframe to process this project through entitlements and permitting.

2. Please confirm any setbacks, specific frontage improvements and/or bulk regulations applicable to this project.

3. Identify/confirm any public notification and posting procedures applicable to entitlements required for this project.

Environmental Review:

4. Please confirm that sensitive areas are not located on or near the proposed QFC Fuel Center location. Is staff aware of any discretionary issues or conditions likely to be associated with the project's environmental review? What additional studies or analysis may be required?

Traffic and Transportation:

5. Will the City of Lacey require a full scale traffic study? Please provide a staff contact responsible for scoping said study.

6. Please identify traffic mitigation fees to be assessed, including the formula used and a preliminary estimate, if possible.

7. What level of highway capacity has been reserved for the existing QFC development? Will a new Certificate of Concurrency be required?

Public Works:

8. Stormwater management systems and controls will be integrated into the existing systems/controls on site and in compliance with current standards. Please identify any upgrades necessary for compliance with current City of Lacey regulations.

9. As a matter of corporate policy, best management practices (BMPs) will be implemented both during and after construction. Please elaborate on special requirements applicable to this project.

Building:

10. May building and construction permits be processed concurrently with entitlements such as site plan review? Are expedited permitting options available? At what cost?

Fire Marshal:

11. What are the City's requirements for fire suppression and/or protection?

12. Are existing hydrants and available fire flow adequate to meet current standards? Please identify the number and location of additional hydrant(s) required, if possible.

13. Aside from standard state licensing, registration, and air quality regulations, are there special requirements and/or permits associated with UST installation?

All Departments:

14. Please identify and itemize all impact fees, system development charges, and/or capital facilities connection fee applicable to this project.

15. Please identify any additional agencies which may require project review and/or retain jurisdiction over this project.

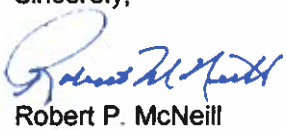
16. Please identify permits and plan review submittal requirements for each City of Lacey department involved with the construction of this facility.

Thank you for your prompt attention to this project's permit submittal. Please review for completeness and itemize any deficiencies noted in your examination. Our response will be expedited to complete this application and initiate review. Please schedule the meeting at the earliest possible date so travel arrangements may be made.

Should your review produce any questions or a need for additional documentation please contact my office via telephone at (425) 656-1061 or e-mail at bmcneill@barghausen.com.

Thank you.

Sincerely,



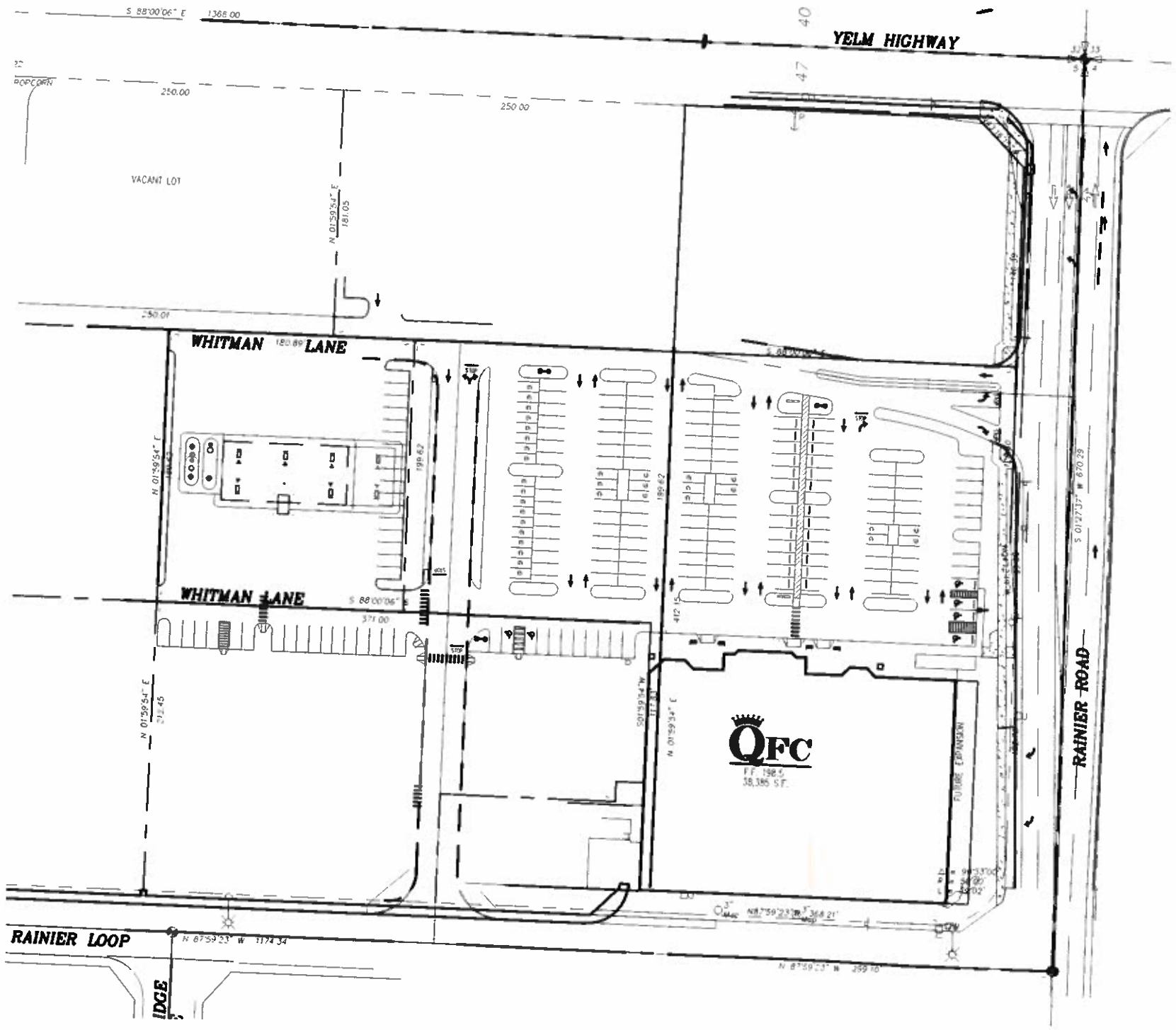
Robert P. McNeill
Senior Planner

RPM/lb
15421c.005.docx
enc: As Noted
cc: Mr. Brian Peterson, The Kroger Co.
Mr. Chris S. Ferko, Barghausen Consulting Engineers, Inc.
Mr. Charles Moseley, Barghausen Consulting Engineers, Inc.

DETAILED SITE PLAN

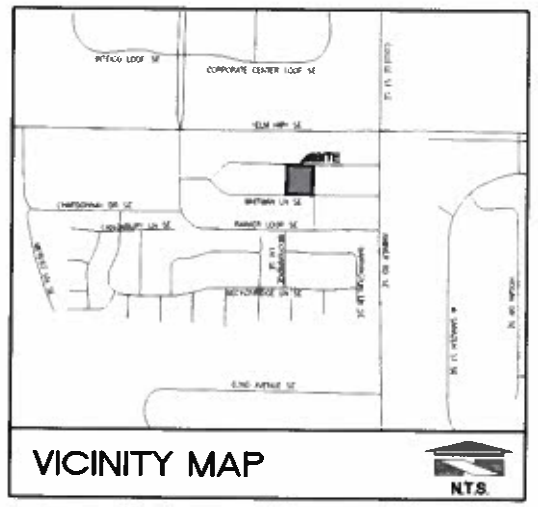
1" = 100'

0 25 50 100



DISCLAIMER:

1. THIS SITE PLAN IS BASED ON GIS BY KING COUNTY. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF COMPLETE ZONING INFORMATION OR CONFIRMATION OF SITE DEVELOPMENT STANDARDS AND THUS THE SITE DEVELOPMENT FEASIBILITY IS NOT IMPLIED OR GUARANTEED.



VICINITY MAP N.T.S.

QFC
Quality Food Centers
STORE #00—
LACEY
4775 WHITMAN LANE SE
LACEY, WA

Kroger
THE KROGER CO.
3800 S.E. 22ND AVENUE
PORTLAND, OR 97202
PHONE (503) 232-8844
FAX (503) 797-3509

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
(425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

QFC
FUELING
FACILITY
4775 WHITMAN LANE SE
LACEY, WA

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△	DATE	DESCRIPTION
-	-	-

BCE 015421
PM: CHRIS FERKO
DATE: 11/07/11

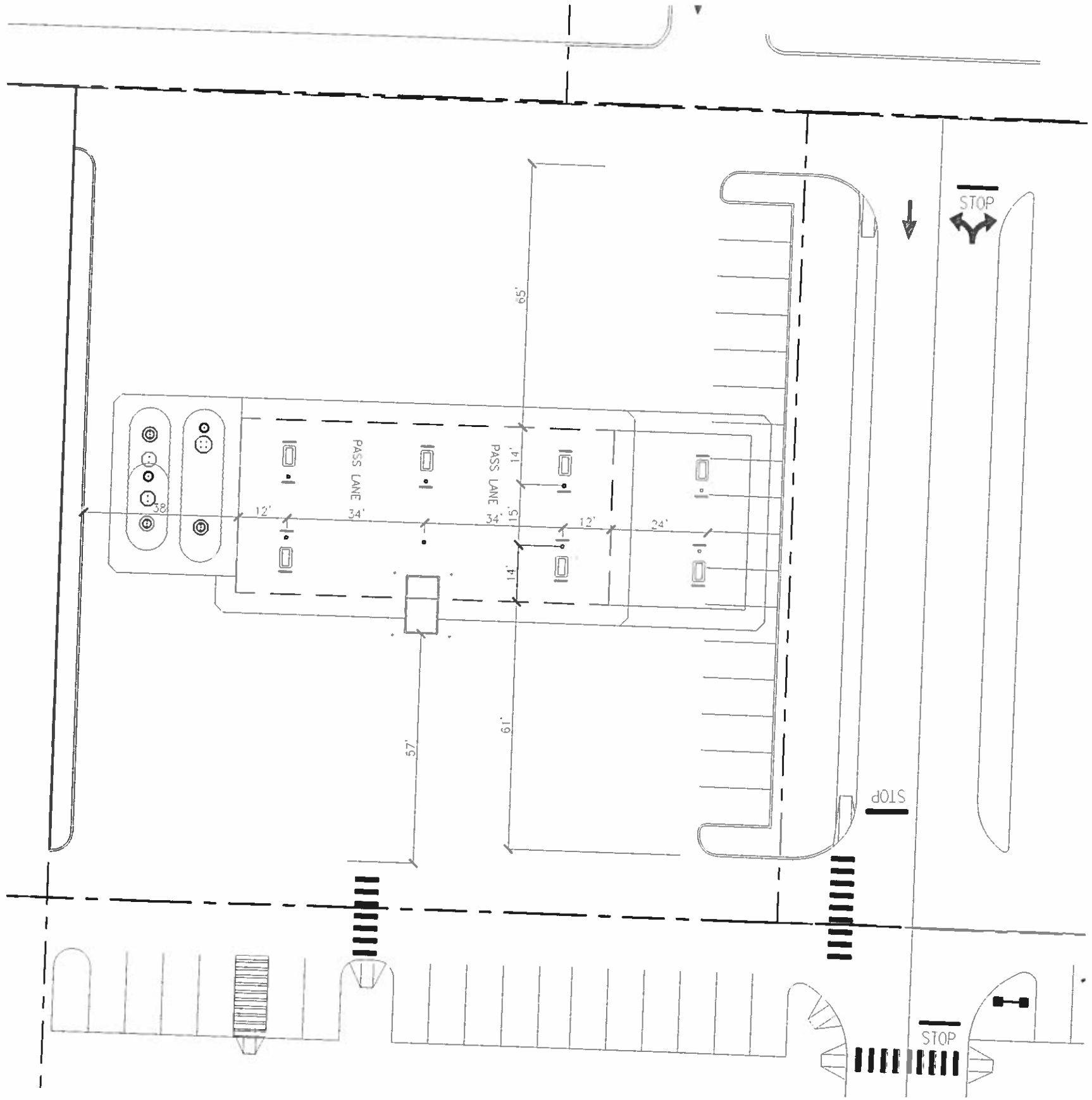
DD-1
OVERALL
SITE PLAN

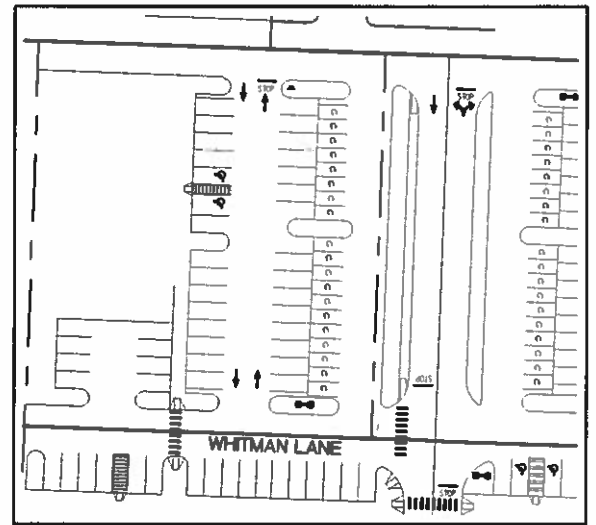
File:P:\15000s\15421\preliminary\Option 4\15421-dd1.dwg Date/Time:12/16/2011 4:20 PM Style:11_XREF JSTEFANOW Xref: ..\15421-blk17.dwg, 15421-pt.dwg, 15421-pls.dwg

DETAILED SITE PLAN

1" = 30'

0 7.5 15 30





EXISTING SITE CONDITONS NTS

DISCLAIMER:

1. THIS SITE PLAN IS BASED ON A SITE PLAN BY QFC. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF COMPLETE ZONING INFORMATION OR CONFIRMATION OF SITE DEVELOPMENT STANDARDS AND THUS THE SITE DEVELOPMENT FEASIBILITY IS NOT IMPLIED OR GUARANTEED.

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LACEY, WA

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△	DATE	DESCRIPTION
*	*	*

BCE #15421
PM: CHRIS FERKO
DATE: 11/07/11

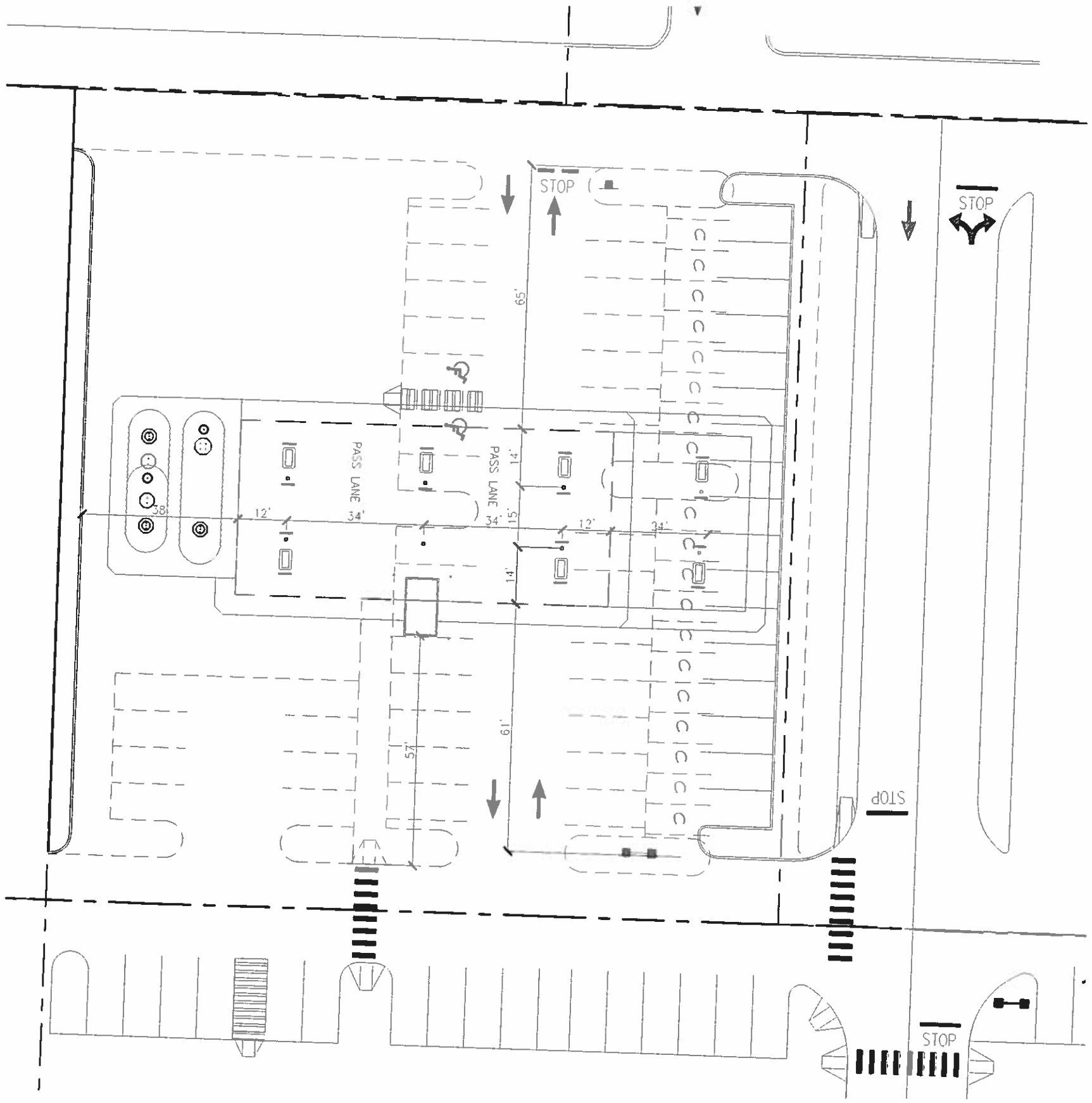
DD-2
DETAILED
SITE PLAN

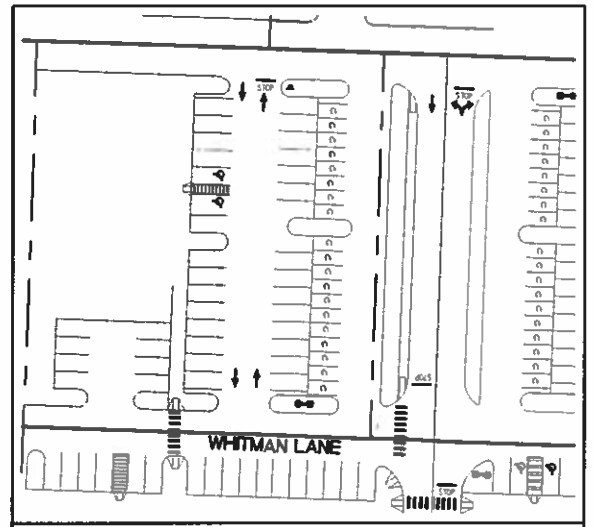
File P:\15000s\15421\preliminary\Option 4\15421-dd2.dwg Date/time:12/16/2011 4:18 PM Scale:1:1 JSTEFANICK Xref: , z15421-b11x17.dwg, z15421-pl.dwg, z15421-ps.dwg

DETAILED SITE PLAN

1" = 30'

0 7.5 15 30





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PM: CHRIS FERKO
DATE: 11/07/11

DD-2
DETAILED
SITE PLAN

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Samara

CITY OF LACEY
Community & Economic Development Department
420 College Street SE
Lacey, WA 98503
(360) 491-5642

OFFICIAL USE ONLY

CASE NUMBER:	19-2887
RELATED CASE NUMBERS:	
PLANNER ASSIGNED:	
PW ASSIGNED:	RECEIVED

OCT 07 2019

BY

PRESUBMISSION CONFERENCE REQUEST FORM

ONE WEEK PRIOR TO REQUESTED DATE, SUBMIT VIA EMAIL TO PLANNING@CI.LACEY.WA.US, OR TO LACEY CITY HALL. NO FEE IS REQUIRED. SUBMISSION SHOULD INCLUDE COMPLETED APPLICATION, SITE PLAN DRAWING, VICINITY MAP, AND TRAFFIC GENERATION WORKSHEET.

APPLICANT: Korean Women's Association - Peter Ansara

ADDRESS: 123 East 96th St. CITY: Tacoma STATE: WA ZIP: 98445

PHONE NUMBER: 253-538-8340 EMAIL: PAnsara@KWAcares.org

REPRESENTATIVE: KMB architects - Craig McClelland

ADDRESS: 906 Columbia St. SW, Suite 100 CITY: Olympia STATE: WA ZIP: 98501

PHONE NUMBER: 360-352-8883 EMAIL: craigmcclelland@kmb-architects.com

PROJECT ADDRESS: 1302 Homann Dr. SE

ASSESSOR'S TAX PARCEL NUMBER(S): 552500 07500/076000

BRIEF DESCRIPTION OF PROJECT: Redevelopment of 1302 & 1308 Homann for new senior housing apartment building. Approx. 4-5 stories high.

TOTAL ACREAGE: 0.35+ 0.23 TOTAL SQ. FT OF BLDG: 55,000 ZONING: CBD-4

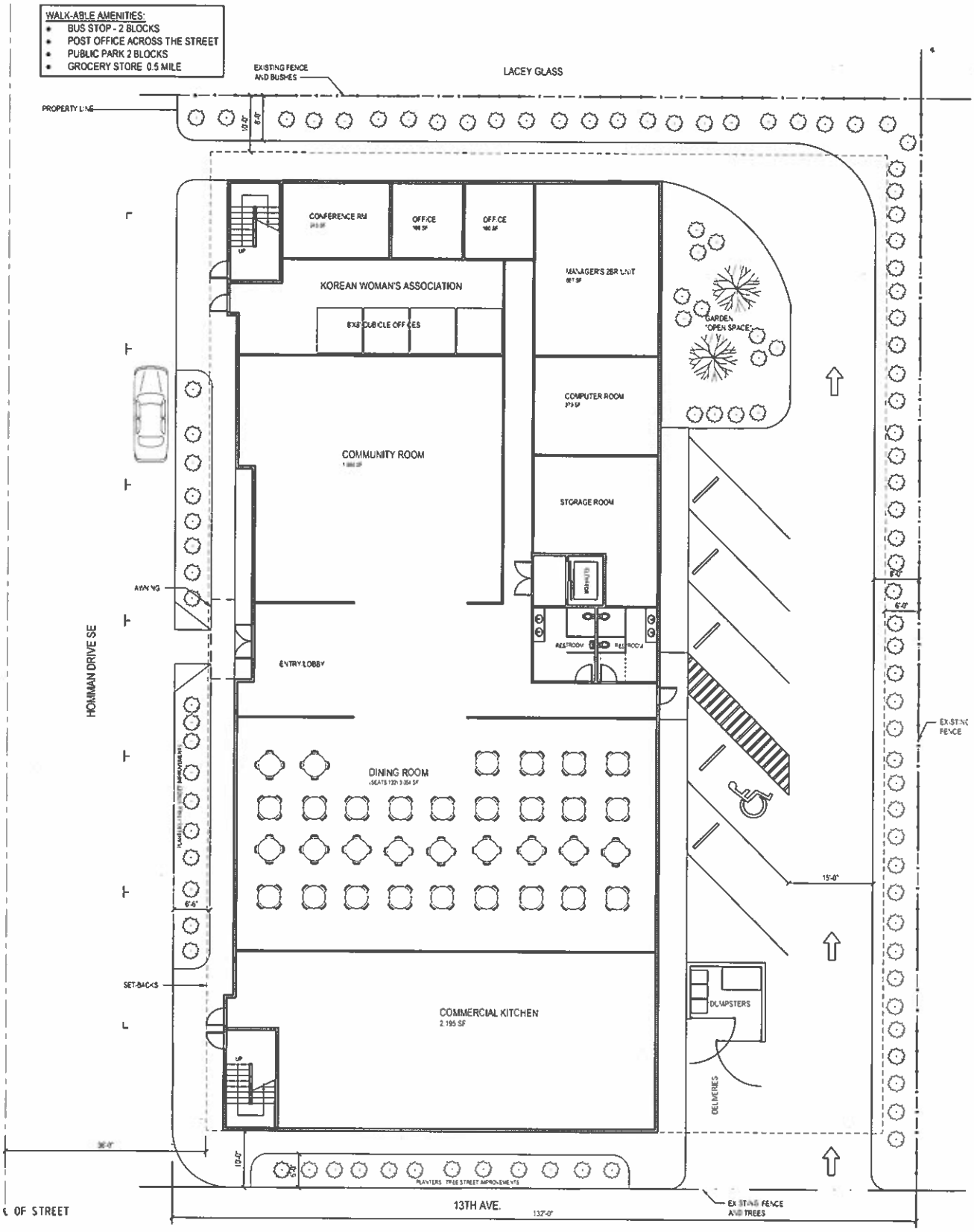
PROPOSED LAND USE: ( ) SINGLE-FAMILY (x) MULTI-FAMILY ( ) INDUSTRIAL DUPLEX ( ) COMMERCIAL ( ) M.H. PARK

EXISTING ACCESS: Homann Dr. PROPOSED ACCESS: Homann & 13th Ave.

INDICATE PREFERENCE FOR A MEETING DATE AND TIME:

(MEETINGS ARE HELD THE 2ND AND 4TH WEDNESDAY OF EACH MONTH) DATE: 10/23 1:30

A presubmission conference is an opportunity for the developer and/or their representative to meet with staff to discuss preliminary studies or sketches of the proposed project. At the conference, staff will make available, pertinent information relating to the proposed development. The intent is to identify and/or eliminate as many potential problems as possible in order for the project to be processed without delay. The conference should take place prior to detailed work by an engineer or surveyor; however, the site drawing submitted, should have sufficient information to allow for staff review. Discussion topics will include such things as Comprehensive Plan, Street Plan, Storm Run Off & Retention, Shoreline Master Program, Zoning, Availability of Water/Sewer, Development Concepts, other requirements and permits, and the environmental impact. If the applicant owns adjacent land, the possibilities of future development will be discussed. Written information regarding process, specific requirements & related issues, will be furnished at the meeting. Staff will typically visit the site prior to the meeting and may enter the property if deemed necessary to gain a full understanding of the project.



SITE PLAN & FIRST FLOOR
SCALE 1/16" = 1'-0"

BUILDING FOOTPRINT 12,658 SF

PARKING ALLOWANCE:
6-8 STAFF
68 APARTMENTS - LOW-INCOME
10 STALLS PROVIDED (INCLUDING STREET PARKING)

KOREAN WOMEN'S ASSOCIATION - FEASIBILITY STUDY
1302 HOMANN DR. SE, LACEY, WA

OCTOBER 7, 2019

906 Columbia Street SW, Suite 400
Olympia, WA 98501
360.352.8883 KMB architects

Pope John Paul II High School
Creative Artistry
New Nails
Cash Northwest
McDonald's
Money Saver Mini Storage Lacey
Precision Piercing
The Coffee Bean
Cutters Point Coffee
Lacey Blvd SE
Rhythm Fire School of Music
1302 Homann Drive Southeast
MetMeds
Curry King
United States Postal Service
Glen Mary Ln SE
Lacey Collision Cent
13th Ave SE
Glen Mary Dr SE
Homann Dr SE
Homann Park
14th Ave SE
Yonkers Dr SE
Emerald Pointe Apartments

CITY OF LACEY
Community & Economic Development Department
420 College Street SE
Lacey, WA 98503
(360) 491-5642

OFFICIAL USE ONLY

CASE NUMBER:	19-300
RELATED CASE NUMBERS:	
PLANNER ASSIGNED:	SES
PW ASSIGNED:	

RECEIVED
OCT 17 2019
BY

PRESUBMISSION CONFERENCE REQUEST FORM

ONE WEEK PRIOR TO REQUESTED DATE, SUBMIT VIA EMAIL TO PLANNING@CI.LACEY.WA.US, OR TO LACEY CITY HALL. NO FEE IS REQUIRED. SUBMISSION SHOULD INCLUDE COMPLETED APPLICATION, SITE PLAN DRAWING, VICINITY MAP, AND TRAFFIC GENERATION WORKSHEET.

APPLICANT: Deacon Development

ADDRESS: 901 NE Glisan Street, Suite 100 **CITY:** Portland **STATE:** OR **ZIP:** 97232

PHONE NUMBER: 503-297-8791 **EMAIL:**

REPRESENTATIVE: Ryan Schera, Development Manager

ADDRESS: 901 NE Glisan Street, Suite 100 **CITY:** Portland **STATE:** OR **ZIP:** 97232

PHONE NUMBER: 503-297-8791 **EMAIL:** ryan.schera@deacon.com

PROJECT ADDRESS: 7423/7439/7447 HAWKS PRAIRIE RD NE , LACEY WA, 98503

ASSESSOR'S TAX PARCEL NUMBER(S): 75390000300,75390000400,75390000500,75390000600

BRIEF DESCRIPTION OF PROJECT: 30,000 SF office building and associated parking and landscaping.

TOTAL ACREAGE: 4.77 **TOTAL SQ. FT OF BLDG:** 30,000 **ZONING:** CCD

PROPOSED LAND USE: ( ) SINGLE-FAMILY ( ) MULTI-FAMILY ( ) INDUSTRIAL DUPLEX ( ) COMMERCIAL ( ) M.H. PARK

EXISTING ACCESS: Marvin Rd/Hawks Praire Rd **PROPOSED ACCESS:**

INDICATE PREFERENCE FOR A MEETING DATE AND TIME: 2:30 pm

(MEETINGS ARE HELD THE 2ND AND 4TH WEDNESDAY OF EACH MONTH) **DATE:** 10/23/19 **TIME:** ~~10am or 11am~~

A presubmission conference is an opportunity for the developer and/or their representative to meet with staff to discuss preliminary studies or sketches of the proposed project. At the conference, staff will make available, pertinent information relating to the proposed development. The intent is to identify and/or eliminate as many potential problems as possible in order for the project to be processed without delay. The conference should take place prior to detailed work by an engineer or surveyor; however, the site drawing submitted, should have sufficient information to allow for staff review. Discussion topics will include such things as Comprehensive Plan, Street Plan, Storm Run Off & Retention, Shoreline Master Program, Zoning, Availability of Water/Sewer, Development Concepts, other requirements and permits, and the environmental impact. If the applicant owns adjacent land, the possibilities of future development will be discussed. Written information regarding process, specific requirements & related issues, will be furnished at the meeting. Staff will typically visit the site prior to the meeting and may enter the property if deemed necessary to gain a full understanding of the project.

City of Lacey

DEPARTMENT OF PUBLIC WORKS
420 College Street S.E.
Lacey, WA 98503-1238
(360) 491-5600

COMMERCIAL TRAFFIC GENERATION WORKSHEET

Date: 10/16/19 Project No.: _____

Project Name: South Bay Village Office Parcel No.: 75390000300,400,500,600

Project Address: 7423/7439/7447 HAWKS PRAIRIE RD NE , LACEY WA, 98503

Applicant's Name: Ryan Schera Phone: 503-297-8791

Applicant's Address: 901 NE Glisan St., Suite 100 Portland, OR 97232

Existing Use

Is there an existing use on the proposed project site:	☐ Yes	☒ No
Has the existing use been vacant for more than 18 months?	☐ Yes	☒ No
Will any of the existing buildings be demolished?	☐ Yes	☒ No

Please explain the current use, if any (type of business; business license number, if available; size in gross square feet; number of employees; hours of operation, etc.):

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Proposed Use (Include Site Plan)

Commercial projects can cover a wide variety of land uses, not all uses are covered in the Trip Generation Manual. A private traffic engineer may be required for exceptional proposals. Please provide as much information as possible, if applicable to your development:

Project Site Gross Acres: Number of Gas Pumps / Fueling Positions:

Building Size Gross Square Feet: Number of Drive-through Windows:

Number of Employees: Number of Service Bays:

Number of Parking Stalls: Number of Car Wash Stalls:

Number of Students / Children: _____ Number of Seats (Theaters, etc.): _____

Number of Rooms (Hotels, etc.): _____ Number of Courts / Fields / Tees: _____

Please explain the proposed use (type of business and all other information not provided above that you feel is relevant in determining traffic generation):

Proposed Use: Office/HQ

Proposed SF: 30,000 SF

Parking Stalls: 130

Number of Employees: 130

I declare that I have completed this form and to the best of my knowledge and belief the above information is true and correct. I understand the City is relying on this information to accurately determine the traffic impacts from my development.

Signature RS Date: 10/16/19

For Official Use Only:

HTE Number: Approved for Traffic Division By:

Development Reviewer: Planner: _____

Land Use Code: Discounts Applied:

Total PM Peak Hour Trips: _____ New PM Peak Hour Trips: _____

Comments: _____

Calculated by: _____

© 2005 City of Lacey, Washington, USA

COVER SHEET
FOR
SOUTHBAY VILLAGE
PHASE I

SPECIAL NOTES:

1. SPECIAL INSPECTION IS REQUIRED FOR THE PLACEMENT OF ALL SOILS. INSPECTIONS SHALL BE PERFORMED BY A WASHINGTON STATE LICENSED SOILS SPECIALIST.
2. ALL FILL MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE RECCOMENDATIONS CONTAINED IN THE GEOTECHNICAL ENGINEERING STUDY PREPARED BY KRAZAN & ASSOCIATES, INC. DATED FEBRUARY 20, 2008.
3. PER IBC SECTION 1803.5.

   #6–THE MINIMUM ACCEPTABLE IN–PLACE DRY DENSITY EXPRESSED AS A PERCENTAGE OF THE MAXIMUM DRY DENSITY (ASTM D–1557 MODIFIED PROCTOR) SHALL BE 90 PERCENT

   #7–THE NUMBER AND FREQUENCY OF IN–PLACE DENSITY TESTS SHALL BE DETERMINED AS FOLLOWS:

   * MINIMUM ONE TEST FOR EVERY 300 CUBIC YARDS OF PLACED AND COMPACTED FILL. TEST LOCATIONS ARE TO BE DISTRIBUTED THROUGHOUT THE FILL AREAS SUCH THAT GOOD REPRESENTATION IS ACHIEVED.
4. GRADING IN EXCESS OF 5,000 CY SHALL BE DEEMED "ENGINEERED" GRADING.

INSPECTION REQUIREMENTS SUMMARY
(SEE FULL REQUIREMENTS ON SHEET C5)

1. CIVIL ENGINEER
   A. GENERAL CONSTRUCTION OBSERVATION.
   B. CONFIRMATION OF ESTABLISHMENT OF LINE, GRADE, AND SURFACE DRAINAGE FEATURES.
   C. REVIEW AND PROCESS RFI AND FIELD CHANGES.
2. SOILS ENGINEER/ENGINEERING GEOLOGIST
   A. GENERAL OBSERVATION AND INSPECTION DURING SITEWORK PREPARATION AND PLACEMENT AND COMPACTION OF FILL MATERIAL.
   B. COMPACTION TESTING AND FIELD REPORT PREPARATION.
   C. RECOMMENDATIONS FOR CHANGED FIELD CONDITIONS AND UNFORESEEN CIRCUMSTANCES.

COMPLETION OF WORK REQUIREMENTS SUMMARY
(SEE FULL REQUIREMENTS ON SHEET C5)

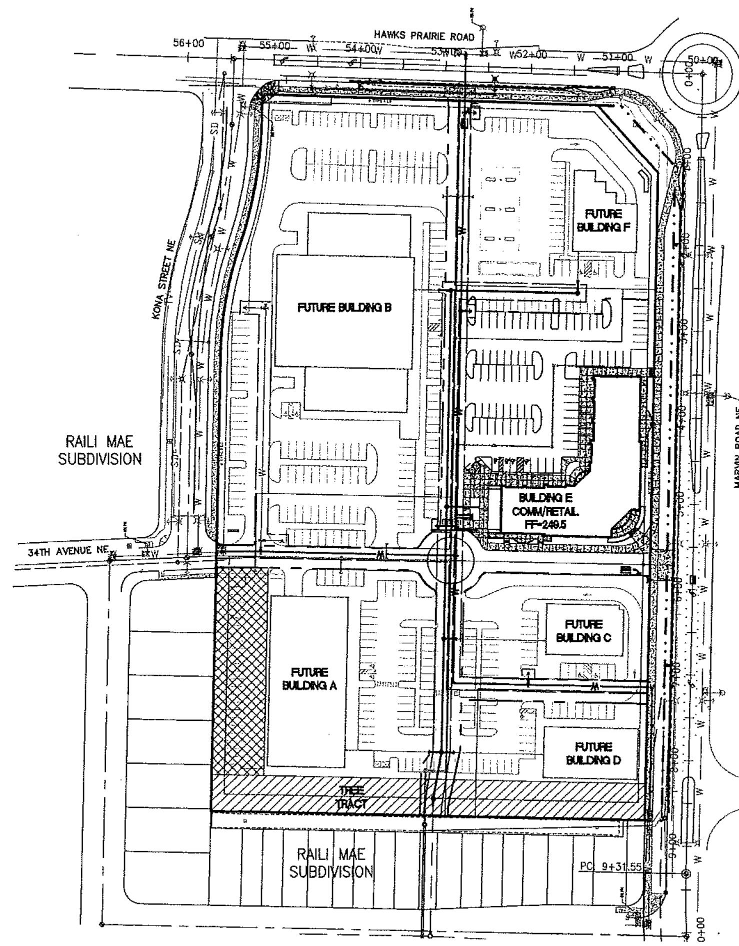
1. AS–BUILT GRADING PLAN.
2. AS CONSTRUCTED LOCATIONS OF SURFACE DRAINAGE AND SUBSURFACE DRAINS.
3. CIVIL ENGINEER'S STATEMENT OF COMPLETION OF WORK IN ACCORDANCE WITH APPROVED PLANS.
4. FINAL REPORT BY SOILS ENGINEER/GEOLOGIST, INCLUDING LOCATIONS AND ELEVATIONS OF FIELD DENSITY TESTS, LABORATORY TESTS, FIELD CHANGES, AND OTHER DATA.
5. SOILS ENGINEER/GEOLOGIST STATEMENT OF COMPLETION IN ACCORDANCE WITH GEOTECHNICAL REPORT RECOMMENDATIONS AND ANY UPDATED REQUIREMENTS BASED ON CONDITIONS NOTED DURING GRADING WORK.

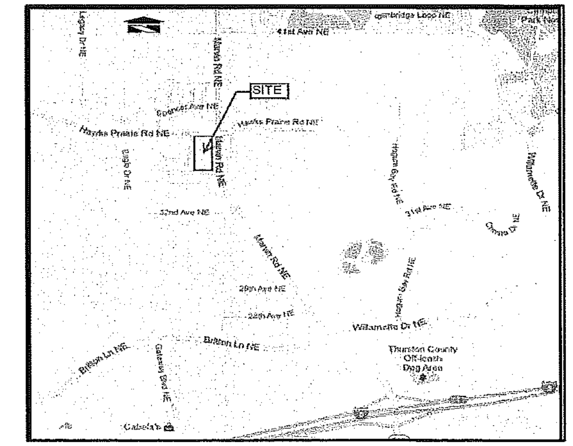
LEGEND:

EX. SEWER LINE	——SS——
EX. SEWER MANHOLE	
EX. SEWER CLEANOUT	
EX. WATER LINE	- - - - -
EX. FIRE HYDRANT	
EX. WATER METER	
EX. GATE VALVE	
EX. WATER VAULT	W
EX. GAS LINE	——GAS——
EX. POWER LINE (UG)	——P(UG)——
EX. SPOT ELEVATION	×19.50
EX. CONTOUR	——82——
EX. FENCE	—×—×—×—
PROPOSED STORM LINE	
PROPOSED CATCH BASIN TYPE I	
PROPOSED CATCH BASIN TYPE II	
MAX. WATER SURFACE LINE	
DEAD STORAGE LINE	
PROPOSED SEWER LINE	
PROPOSED SEWER MANHOLE	
PROPOSED SEWER CLEANOUT	
PROPOSED WATER LINE	——W——
PROPOSED FIRE HYDRANT	
PROPOSED WATER METER	
PROPOSED GATE VALVE	
PROPOSED SIGN	
PROPOSED SPOT ELEVATION	10.00
PROPOSED CONTOUR	- - -82- - -
PROPOSED EASEMENT LINE	
PROPOSED BUILDING LINE	
PROPOSED CONCRETE	
PROPOSED ASPHALT	
PROPOSED FENCE	—×—×—×—

1"=100'

0 50 100 200





VICINITY MAP
NOT TO SCALE

APPLICANT
BPCI, LLC
801 VALLEY AVENUE NW.
PUYALLUP, WA 98371
(253) 922–3399
CONTACT: SHARLA PEARSON

SITE ADDRESS:
7465 HAWKS PRAIRIE ROAD NE
LACEY, WA 98503

PARCEL NO.: 11803100100

OWNER
JEFF AND JOLENE HOLMES
17615–85TH AVENUE COURT EAST
PUYALLUP, WA 98375

ENGINEER
BARGHAUSEN CONSULTING ENGINEERS
18215 72ND AVE SOUTH
KENT, WA 98032
(425) 251–6222
(425) 251–8782 (FAX)
CONTACT: DAN BALMELLI

SURVEYOR
ABBEY ROAD GROUP LLC
923 SHAW ROAD
PUYALLUP, WA 98371
(253) 435–3699
(253) 446–3159 (FAX)
CONTACT: ROY SNYDER

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SURVEY DATA
HORIZONTAL DATUM IS NAD 1983 (91) AND VERTICAL DATUM IS NGVD 1929 PER INFORMATION PUBLISHED BY THE CITY OF LACEY. COORDINATES AND ELEVATIONS ARE BASED ON CITY OF LACEY BENCHMARK BM#1104 (HELD FOR ELEVATION) AND HORIZONTAL CONTROL PT NO. 839

VERTICAL DATUM:
CITY OF LACEY NGVD 29

VERTICAL BENCHMARKS:
BM NO. 1104
EL = 268.63
8" CONC MON WITH 2" BRASS DISC LS #29278
N: 646357.0
E: 72371.0

TREE PROTECTION NOTES
1. ALL TREE PROTECTION AREAS SHALL HAVE PROTECTIVE BARRIER FENCES ERECTED AT THE EDGES OF THE ROOT PROTECTION ZONES. THE FENCES SHALL BE MADE OF ORANGE MESH PLASTIC AND SUPPORTED BY AT LEAST ⅝THS REBAR OR T–BAR METAL FENCE POSTS SPACED A MAXIMUM OF 10–FEET APART. NO GRADING, FILLING, OPERATION OF EQUIPMENT, MODIFICATIONS TO DRAINAGE, UTILITY TRENCHES, UNDERSTORY REMOVAL, OR OTHER ACTIVITY SHOULD OCCUR WITHIN THE ROOT PROTECTION ZONES.
2. TREE FENCES SHALL BE ERECTED AROUND ALL TREES TO BE SAVED PRIOR TO THE START OF CONSTRUCTION. FENCE LOCATIONS SHALL BE INSPECTED BY THE CITY OF LACEY PROFESSIONAL FORESTER TO ENSURE PROPER PLACEMENT PRIOR TO THE START OF CONSTRUCTION.

EROSION CONTROL NOTE
1. EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES. NO SILTATION OF EXISTING OR PROPOSED DRAINAGE FACILITIES SHALL BE ALLOWED. CARE SHALL BE TAKEN TO PREVENT MIGRATION OF SILTS TO OFF–SITE PROPERTIES.

CALL BEFORE YOU DIG A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION 1-800-424-5555

LEGAL DESCRIPTION
A PORTION OF GOVERNMENT LOT 1 IN THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 3, TOWNSHIP 18 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN THURSTON COUNTY WASHINGTON, DESCRIBED AS FOLLOWS'.

BEGINNING AT THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 3; THENCE SOUTH 01°18'12" WEST ALONG THE EAST LINE OF SAID NORTHEAST QUARTER FOR A DISTANCE OF 108.48 FEET; THENCE NORTH 88°03'31" WEST PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER FOR A DISTANCE OF 30.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 01°18'12" WEST ALONG THE WESTERLY RIGHT–OF–WAY LINE OF MARVIN ROAD FOR A DISTANCE OF 762.31 FEET; THENCE NORTH 88°41'48" WEST FOR A DISTANCE OF 525.42 FEET; THENCE NORTH 01°18'06" EAST FOR A DISTANCE OF 531.88 FEET; THENCE ALONG THE ARC OF A 421.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 17°29'04" FOR A DISTANCE OF 128.47 FEET; THENCE ALONG THE ARC OF A 489.00 FOOT RADIUS REVERSE CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 16°50'36" FOR AN ARC DISTANCE OF 143.75 FEET; THENCE NORTH 01°56"34" EAST FOR A DISTANCE OF 26.35 FEET; THENCE ALONG THE ARC OF A 20.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 30°00'41" FOR AN ARC DISTANCE OF 10.36 FEET, TO A POINT ON THE SOUTHERLY RIGHT–OF–WAY LINE OF HAWKS PRAIRIE ROAD; THENCE SOUTH 88°03"31" EAST, ALONG THE SOUTHERLY RIGHT–OF–WAY LINE OF HAWKS PRAIRIE ROAD FOR A DISTANCE OF 415.70 FEET, THENCE SOUTH 41°45'31" EAST FOR A DISTANCE OF 94.71 FEET TO THE TRUE POINT OF BEGINNING, RECORDS OF THURSTON COUNTY, WASHINGTON.

SITUATE IN THE CITY OF LACEY, COUNTY OF THURSTON, STATE OF WASHINGTON,

ESTIMATED EARTHWORK VOLUMES:
CUT: 14,000 cu. yds. ±
FILL: 20,000 cu. yds. ±

GENERAL SOIL TYPE:
VASHON GLACIAL TILL

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING PERMITS FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES FOR REMOVING AND REPLACING ALL SURVEY MONUMENTATION THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITY, PURSUANT TO WAC 332–120. APPLICATIONS MUST BE COMPLETED BY A REGISTERED LAND SURVEYOR. APPLICATIONS FOR PERMITS TO REMOVE MONUMENTS MAY BE OBTAINED FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, OR BY CONTACTING THEIR OFFICE BY TELEPHONE AT (206) 902–1190.

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
PUBLIC LAND SURVEY OFFICE
1111 WASHINGTON STREET S.E.
P.O. BOX 47060
OLYMPIA, WASHINGTON 98504–7060

UPON COMPLETION OF CONSTRUCTION, ALL MONUMENTS DISPLACED, REMOVED, OR DESTROYED SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR, AT THE COST AND AT THE DIRECTION OF THE CONTRACTOR, PURSUANT TO THESE REGULATIONS. THE APPROPRIATE FORMS FOR REPLACEMENT OF SAID MONUMENTATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

TOTAL SITE AREA=428,629 SF ≈ 9.84 AC

FEB 09 2012

NOTES:
1. CONTRACTOR TO INSTALL C.B. PROTECTION ON ALL EXISTING C.B.'S WITHIN VICINITY OF PROJECT WHICH MAY BE EFFECTED BY EARTHWORK OPERATION.
2. ANY NEW C.B. CONSTRUCTED DURING SITE WORK MUST BE EQUIPPED WITH C.B. PROTECTION DURING CONSTRUCTION. ALL NEW CATCH BASINS AND CONVEYANCE SYSTEMS SHALL DISCHARGE TO PRESETTLING POND PRIOR TO PAVING.

UTILITY CONFLICT NOTE:

CAUTION:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1–800–424–5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

THE FOLLOWING PLANS SUBMITTED TO THE CITY OF LACEY FOR REVIEW HAVE BEEN REVIEWED UNDER MY SUPERVISION.

PUBLIC WORKS DIRECTOR DATE

FOR THE CITY OF LACEY

BY: ______________ DATE: ________
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
COVER SHEET FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER 2/09/2012

Scale: Horizontal 1"=100' Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251–6222
(425)251–8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C1 of 7

File:P:\15000s\15426\preliminary\15426–pae.dwg Date/Time:1/26/2012 9:12 AM Scale:1'–0" = 1'–0"_XREF CPHILIPPIDES Xref: , z15426–pb.dwg, dan–b.dwg, z15426–pp.dwg, z15426–pt.dwg, z15426–ps.dwg

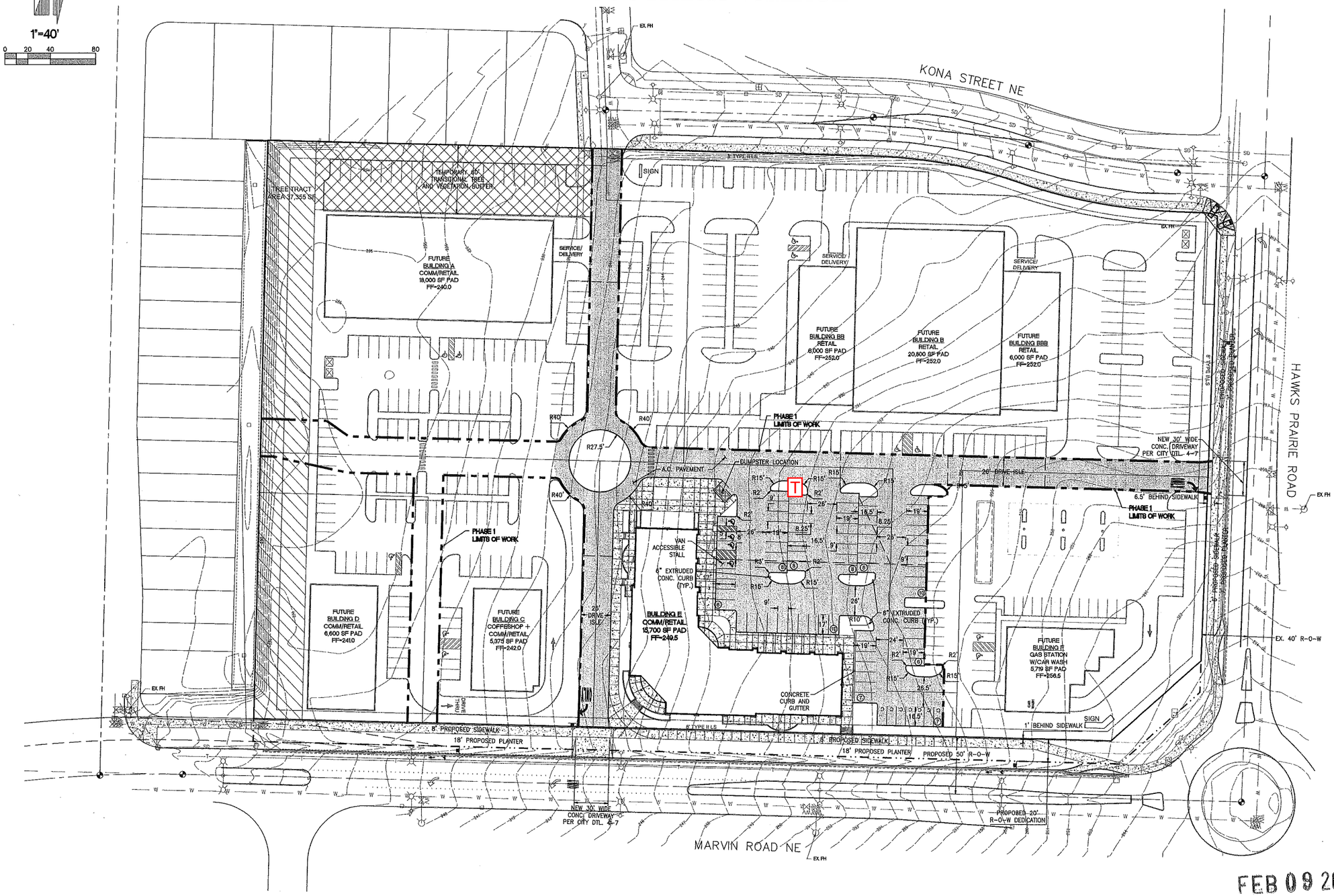
CIVIL SITE PLAN

FOR

SOUTHBAY VILLAGE

1"=40'

0 20 40 80



FEB 09 2012

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, T.WP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

CIVIL SITE PLAN FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

K. BALDERSON — STATE OF WASHINGTON — 15672 — REGISTERED PROFESSIONAL ENGINEER — 2/09/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/22/11

BARGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

Sheet C2 of 7

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TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN

FOR

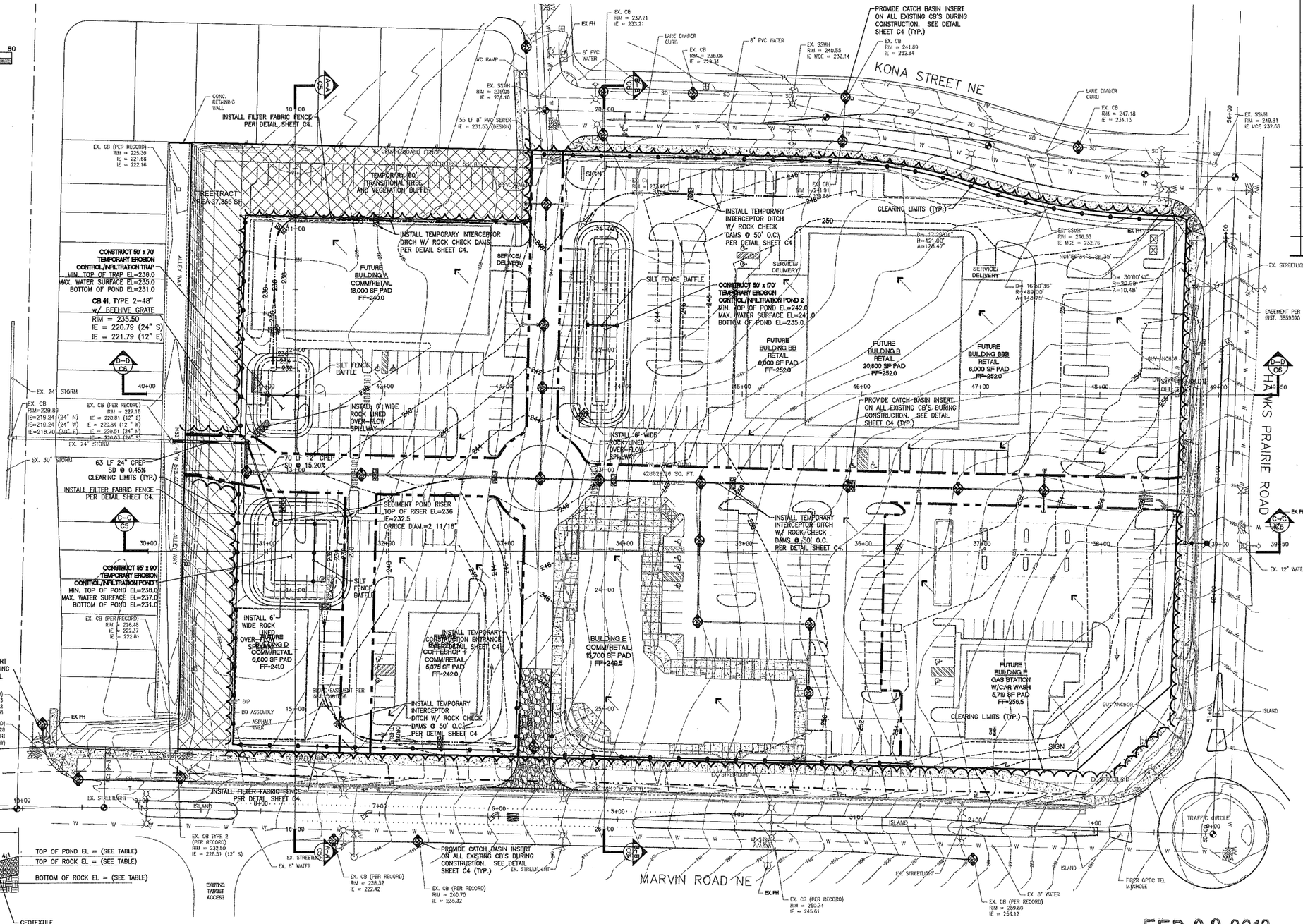
SOUTHBAY VILLAGE

1"=40'

0 20 40 80

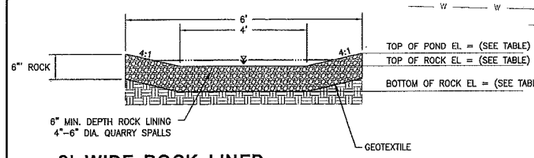
CONSTRUCTION SEQUENCE

1. SCHEDULE AND ATTEND PRE-CONSTRUCTION MEETING WITH CITY OF LACEY OFFICIALS.
2. FLAG ALL CLEARING AND GRADING LIMITS FOR PROJECT AS SHOWN ON THE PLANS.
3. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE.
4. INSTALL TEMPORARY FILTER FABRIC FENCE AS SHOWN ON PLANS.
5. INSTALL PERIMETER INTERCEPTOR DITCHES ALONG THE PERIMETER OF PROPOSED WORK.
6. CONTRACTOR TO INSTALL SILT SOCK C.B. PROTECTION ON ALL EXISTING C.B.'S ALONG KONA STREET NE AND MARVIN ROAD NE WITHIN THE VICINITY OF THE SITE PRIOR TO COMMENCING GRADING OF THE SITE.
7. PROVIDE RIP RAP AT OUTLET OF INTERCEPTOR DITCHES.
8. PROTECT ALL PROPERTIES ADJACENT TO THE PROJECT FROM SEDIMENT DEPOSITION.
9. CLEAR AND GRADE SITE AMEND E.S.C. FACILITIES AS REQUIRED.
10. CONSTRUCT ON SITE PRESETTLING PONDS AND DRAINAGE CONVEYANCE SYSTEM, PROTECT FROM SEDIMENT DEPOSITION AT ALL TIMES. ALL NEW CATCH BASINS SHALL HAVE SILT SOCKS INSTALLED AND MAINTAINED DURING CONSTRUCTION ACTIVITIES. NEW STORM DRAINS SHALL BE CONNECTED TO THE PRESETTLING PONDS PRIOR TO DISCHARGING INTO THE PERMANENT WATER QUALITY POND UNTIL JUST PRIOR TO SITE PAVING.
11. WHEREVER CONSTRUCTION VEHICLES ACCESS ROUTE CROSSES PAVED ROADS, CARE MUST BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO PAVED SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY.
12. WITH EACH LAYER OF FILL MATERIAL, INTERCEPTOR DITCHES AND T.E.S.C. FACILITIES MUST BE GRADED AND MAINTAINED TO PROVIDE POSITIVE SLOPE FOR DRAINAGE TO POND.
13. ALL DISTURBED AREA AND EXISTING DITCHES WHICH HAVE BEEN EFFECTED BY GRADING OPERATION SHALL BE HYDROSEEDED UPON COMPLETION OF GRADING ACTIVITIES AND IN ACCORDANCE WITH GRADING AND TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES, UNLESS OTHERWISE DETERMINED BY GEOTECH ENGINEER.
14. CONTINUOUS MAINTENANCE AND UPGRADE OF T.E.S.C. MEASURES INCLUDING DUST CONTROL SHALL BE PROVIDED AFTER FILL OPERATIONS COMPLETED.
15. STABILIZE/HYDROSEED EXPOSED AREAS AS RECOMMENDED BY GEOTECH ENGINEER.
16. CLEAN STORM DRAINAGE SYSTEM.
17. MAINTAIN E.S.C. FACILITIES UNTIL ALL RISK OF EROSION/SEDIMENTATION DRAINAGE HAS PASSED AND PERMANENT STORM DRAINAGE SYSTEM IS INSTALLED AND FUNCTIONAL. DO NOT CONVEY SEDIMENT-LADEN WATER INTO STORM DRAINAGE SYSTEM. TEMPORARY EROSION & SEDIMENTATION CONTROL FACILITIES TO BE REMOVED ONLY UPON FINAL SITE STABILIZATION & APPROVAL FROM CITY OFFICIAL.
18. COMPLETE INSPECTION/PUNCHLIST.



OVERFLOW SPILLWAY ELEVATION TABLE

	TRAP	POND 1	POND 2
TOP OF POND EL	236.0	238.0	242.0
TOP OF ROCK EL	235.5	237.5	241.5
BOTTOM OF ROCK EL	235.0	237.0	241.0



6' WIDE ROCK LINED OVERFLOW SPILLWAY DETAIL

NOT TO SCALE

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =288.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FEB 09 2012

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Chkd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN FOR SOUTHBAY VILLAGE

For:

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL M. BALDWIN — STATE OF WASHINGTON — 21582 — REGISTERED PROFESSIONAL ENGINEER — 2/09/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/2/11

BARGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

Sheet C3 of 7

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TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

FOR

SOUTHBAY VILLAGE

STANDARD NOTES FOR BMP'S

CONSTRUCTION ENTRANCE NOTES

1. MATERIAL SHALL BE 4" TO 6" QUARRY SPALLS AND MAY BE TOP-DRESSED WITH 1" TO 3" ROCK. (STANDARD SPECIFICATIONS).
2. THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 100 FEET LONG. WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. SMALLER PADS MAY BE APPROVED FOR SINGLE-FAMILY RESIDENTIAL AND SMALL COMMERCIAL SITES.
3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
4. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH SILT FENCE.

TEMPORARY DIKES AND SWALES NOTES

1. SEED AND MULCH SHALL BE APPLIED WITHIN 5 DAYS OF DIKE CONSTRUCTION (SEE VEGETATION).
2. THE UPSLOPE SIDE OF THE DIKE SHALL PROVIDE POSITIVE DRAINAGE TO THE DIKE OUTLET.
3. NO EROSION SHALL OCCUR AT THE DIKE OUTLET. PROVIDE ENERGY DISSIPATION MEASURES AS NECESSARY.
4. SEDIMENT LADEN RUNOFF MUST BE RELEASED THROUGH A SEDIMENT TRAPPING FACILITY SUCH AS A POND, TRAP, OR SILT FENCE AS APPROPRIATE TO DRAINAGE AREA SIZE.

TEMPORARY GRAVEL OUTLET NOTES

1. GRAVEL SHALL BE 5/8-INCH MINUS WASHED ROCK. A LAYER OF FILTER FABRIC SHALL BE EMBEDDED IN THE GRAVEL.
2. MINIMUM LENGTH IN FEET OF THE GRAVEL OUTLET STRUCTURE SHALL BE EQUAL TO SIX TIMES THE NUMBER OF ACRES OF CONTRIBUTING DRAINAGE AREA.
3. THE INVERT OF THE GRAVEL OUTLET SHALL NOT BE LESS THAN 6 INCHES LOWER THAN THE MINIMUM ELEVATION OF THE TOP OF THE DIKE.
4. WATER SHALL BE DISCHARGED FROM THE GRAVEL OUTLET ONTO AN ALREADY STABILIZED AREA OR INTO A STABLE WATERCOURSE.
5. THE GRAVEL OUTLET STRUCTURE SHALL BE INSPECTED AND REPAIRED AFTER EACH RUNOFF-PRODUCING RAIN. THE GRAVEL MUST BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SEDIMENT ACCUMULATION AMONG THE GRAVEL.

CHECK DAM NOTES

1. THE MAXIMUM SPACING BETWEEN THE DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
2. ROCK CHECK DAMS SHALL BE CONSTRUCTED OF 2-TO 4-INCH DIAMETER ROCK. THE ROCK MUST BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM DAM) TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
3. LOG CHECK DAMS SHALL BE CONSTRUCTED OF 4- TO 6-INCH DIAMETER LOGS. THE LOGS SHALL BE EMBEDDED INTO THE SOIL AT LEAST 18 INCHES.
4. IN THE CASE OF GRASS-LINED DITCHES AND SWALES, CHECK DAMS SHALL BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER DAM REMOVAL.
5. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL DAM HEIGHT OR BEFORE.

PLASTIC COVERING NOTES

1. PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILLS AND SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 9-14.5.
2. COVERING SHALL BE INSTALLED AND MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10-FOOT GRID SPACING IN ALL DIRECTIONS. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE AT LEAST A 12 INCH OVERLAP OF ALL SEAMS.
3. CLEAR PLASTIC COVERING SHALL BE INSTALLED IMMEDIATELY ON AREAS SEEDED BETWEEN NOVEMBER 1 AND MARCH 31 AND REMAIN UNTIL VEGETATION IS FIRMLY ESTABLISHED.
4. WHEN THE COVERING IS USED ON UN-SEEDED SLOPES, IT SHALL BE KEPT IN PLACE UNTIL THE NEXT SEEDING PERIOD.
5. PLASTIC COVERING SHEETS SHALL BE BURIED TWO FEET AT THE TOP OF SLOPES IN ORDER TO PREVENT SURFACE WATER FLOW BENEATH SHEETS.
6. PROPER MAINTENANCE INCLUDES REGULAR CHECKS FOR RIPS AND DISLODGED ENDS.

MULCHING NOTES

1. MULCH MATERIALS USED SHALL BE HAY OR STRAW, AND SHALL BE APPLIED AT THE RATE OF ONE (1) BALE PER 200 SF.
2. MULCHES SHALL BE APPLIED IN ALL AREAS WITH EXPOSED SLOPES GREATER THAN 2:1.
3. MULCHING SHALL BE USED IMMEDIATELY AFTER SEEDING OR IN AREAS WHICH CANNOT BE SEEDED BECAUSE OF THE SEASON.
4. ALL AREAS NEEDING MULCH SHALL BE COVERED BY NOVEMBER 1.

SEEDING NOTES

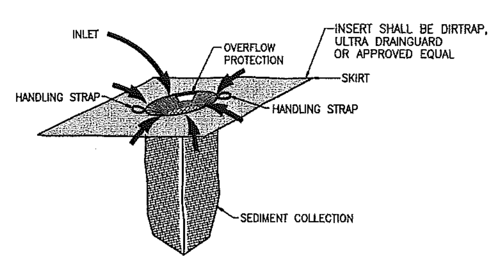
1. SEED MIXTURE SHALL BE 10% RED TOP, 40% ANNUAL RYE, 40% CHEWING FESCUE, 10% WHITE, DUTCH CLOVER, AND SHALL BE APPLIED AT THE RATE OF 225 LBS. PER ACRE.
2. SEED BEDS PLANTED BETWEEN MAY 1 AND OCTOBER 31 WILL REQUIRE IRRIGATION AND OTHER MAINTENANCE AS NECESSARY TO FOSTER AND PROTECT THE ROOT STRUCTURE.
3. FOR SEED BEDS PLANTED BETWEEN OCTOBER 31 AND APRIL 30, ARMORING OF THE SEED BED WILL BE NECESSARY. (E.G., GEOTEXTILES, JUTE MAT, CLEAR PLASTIC COVERING).
4. BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKES, SWALES, LEVEL SPREADERS AND SEDIMENT BASINS.
5. THE SEEDBED SHALL BE FIRM WITH A FAIRLY FINE SURFACE, FOLLOWING SURFACE ROUGHENING. PERFORM ALL CULTURAL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE.
6. FERTILIZERS ARE TO BE USED ACCORDING TO SUPPLIERS RECOMMENDATIONS. AMOUNTS USED SHOULD BE MINIMIZED, ESPECIALLY ADJACENT TO WATER BODIES AND WETLANDS.

TOPSOIL STOCKPILING NOTES

1. STOCKPILES SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY BETWEEN NOVEMBER 1 AND MARCH 31.
2. IN ANY SEASON, SEDIMENT LEACHING FROM STOCK PILES MUST BE POSITIVELY PREVENTED.
3. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
4. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVAL PLAN.

SOD PLACEMENT NOTES

1. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4-INCH AT THE TIME OF CURING. MEASUREMENTS FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.
2. STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED BY THE END OF A 3 FOOT SECTION.
3. SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
4. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.



EROSION CONTROL CATCH BASIN INSERT

NOT TO SCALE

STANDARD ESC NOTES

- A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) IS REQUIRED FOR ALL CONSTRUCTION PROJECTS. THE NAMED PERSON OR FIRM SHALL BE ON-SITE OR ON-CALL AT ALL TIMES. FOR THIS SITE, THE PERSON/FIRM IS BPCI GENERAL CONTRACTOR AND THEIR TELEPHONE NUMBERS ARE: (OFFICE:) 253-922-3399 (CELL:)253-405-2113.
- THE APPROVED CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENT SHALL BE REFERENCED AND UTILIZED IN CONJUNCTION WITH THE TESC PLAN, NOTES, AND DETAILS.
- APPROVAL OF THIS EROSION & SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- THE CLEARING LIMIT BOUNDARIES SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE SURFACE WATER, GROUND WATER, OR DISCHARGE STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR--AND MAINTAINED, REPAIRED, OR AUGMENTED AS NECESSARY--TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED MONTHLY AND WITHIN 48 HOURS FOLLOWING A MAJOR STORM EVENT (≥ 1" RAINFALL IN 24 HOURS) BY THE APPLICANT/CONTRACTOR -- AND MAINTAINED, REPAIRED, OR AUGMENTED AS NECESSARY -- TO ENSURE THEIR CONTINUED FUNCTIONING.
- STORM DRAIN INLETS OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT. AT NO TIME SHALL MORE THAN 1 FOOT OR 1/3 OF THE SUMP VOLUME (WHICHEVER IS LESS) OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER OFFSITE WITHOUT TREATMENT.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ROADS SHALL BE CLEANED THOROUGHLY AS NEEDED TO PROTECT DOWNSTREAM WATER RESOURCES OR STORMWATER INFRASTRUCTURE. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- FROM OCTOBER 1 THROUGH APRIL 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. SOILS SHALL BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. LINEAR CONSTRUCTION ACTIVITIES, SUCH AS RIGHT-OF-WAY AND EASEMENT CLEARING, ROADWAY DEVELOPMENT, PIPELINES, AND TRENCHING FOR UTILITIES, SHALL COMPLY WITH THESE REQUIREMENTS. THESE STABILIZATION REQUIREMENTS APPLY TO ALL SOILS ON SITE, WHETHER AT FINAL GRADE OR NOT. THE LOCAL PERMITTING AUTHORITY MAY ADJUST THESE TIME LIMITS IF IT CAN BE SHOWN THAT A DEVELOPMENT SITE'S EROSION OR RUNOFF POTENTIAL JUSTIFIES A DIFFERENT STANDARD.
- FROM OCTOBER 1 THROUGH APRIL 30, CLEARING, GRADING, AND OTHER SOIL-DISTURBING ACTIVITIES SHALL ONLY BE PERMITTED IF SHOWN TO THE SATISFACTION OF THE LOCAL PERMITTING AUTHORITY THAT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION SITE TO RECEIVING WATERS WILL BE PREVENTED.
- SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT-TRAPPING MEASURES.
- ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. WOODY DEBRIS MAY BE CHOPPED AND SPREAD ON SITE.
- MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. REPORT ALL SPILLS TO 911.
- WATER FROM MOST DEWATERING OPERATIONS SHALL BE DISCHARGED INTO A SEDIMENT TRAP OR POND. CLEAN, NON-TURBID WATER MAY BE DISCHARGED TO STATE SURFACE WATERS, PROVIDED THE DISCHARGE DOES NOT CAUSE EROSION OR FLOODING. HIGHLY TURBID OR CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, CLAMSHELL DIGGING, CONCRETE TREMIE POUR, OR WORK INSIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER AND PROPERLY DISPOSED.

MATERIALS OF CONSTRUCTION

FABRIC:	NEEDLE PUNCHED NON-WOVEN GEOTEXTILE MATERIAL. FABRIC IS RESISTANT TO ULTRAVIOLET AND BIOLOGICAL DEGREDATION AND A BROAD RANGE OF CHEMICALS.
APPARENT OPENING SIZE (AOS):	80 US STANDARD SIEVE (0.180 MM)
GRAB TENSILE STRENGTH:	200 LBS
PUNCTURE STRENGTH:	130 LBS
MULLEN BURST:	400 PSI
TRAPEZOIDAL TEAR:	85 LBS
WATER FLOW RATE:	110 GPM/FT2
PERMEABILITY:	0.38 CM/SECOND

DIMENSIONS:

SKIRT:	24"x36"
SOCK FILTER/SEPARATOR:	10" D x 24" L

DISPOSAL REQUIREMENTS:

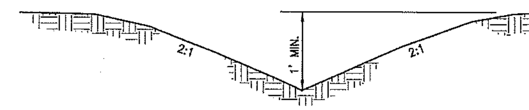
CONSULT FEDERAL, STATE, AND LOCAL REGULATIONS FOR DISPOSAL OF INSERTS

DISPOSAL REQUIREMENTS:

CONSULT FEDERAL, STATE, AND LOCAL REGULATIONS

MAINTENANCE REQUIREMENTS:

1. CATCH BASIN INLET PROTECTION SOCKS SHALL BE REGULARLY INSPECTED TO MAKE SURE THE MESH REMAINS UNDAMAGED, THE SOCKS RETAIN THEIR SHAPE, AND ALLOW ADEQUATE FLOW THROUGH THE SURFACE WATER. IF THE MESH TUBE IS TORN, IT SHALL BE REPAIRED USING TWINE, ZIP TIES, OR WIRE. LARGE SECTIONS OF DAMAGED SOCKS MUST BE REPLACED. ANY DAMAGE MUST BE REPAIRED IMMEDIATELY UPON DISCOVERY OF THE DAMAGE.
2. SEDIMENT MUST BE REMOVED WHEN SEDIMENT ACCUMULATIONS ARE WITHIN 3 INCHES OF THE TOP OF THE SOCK.



TEMPORARY "V" DITCH

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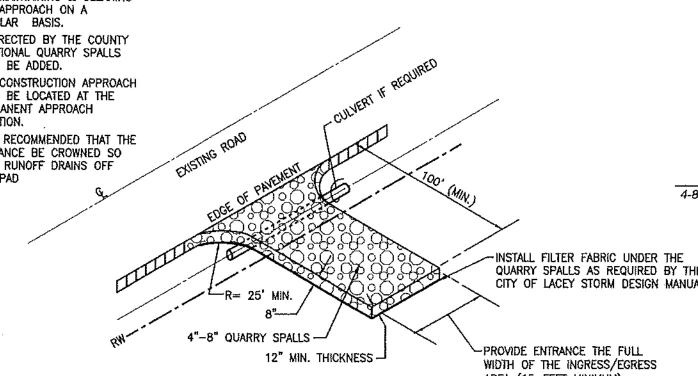
NOTES:

1. CONTRACTORS RESPONSIBILITY FOR MAINTAINING & CLEANING THE APPROACH ON A REGULAR BASIS.
2. IF DIRECTED BY THE COUNTY ADDITIONAL QUARRY SPALLS MUST BE ADDED.
3. THE CONSTRUCTION APPROACH MUST BE LOCATED AT THE PERMANENT APPROACH LOCATION.
4. IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD



TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE

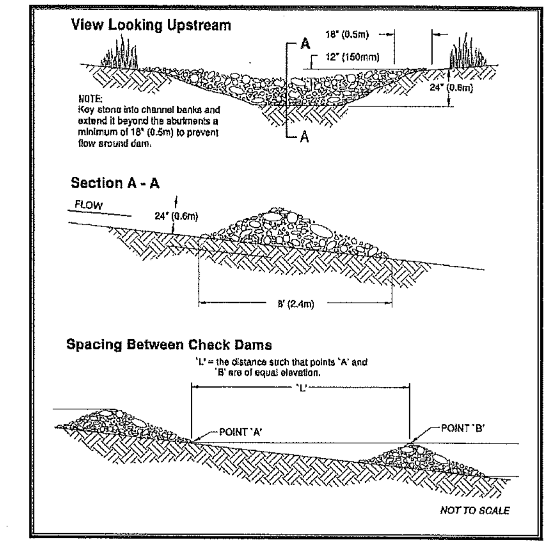
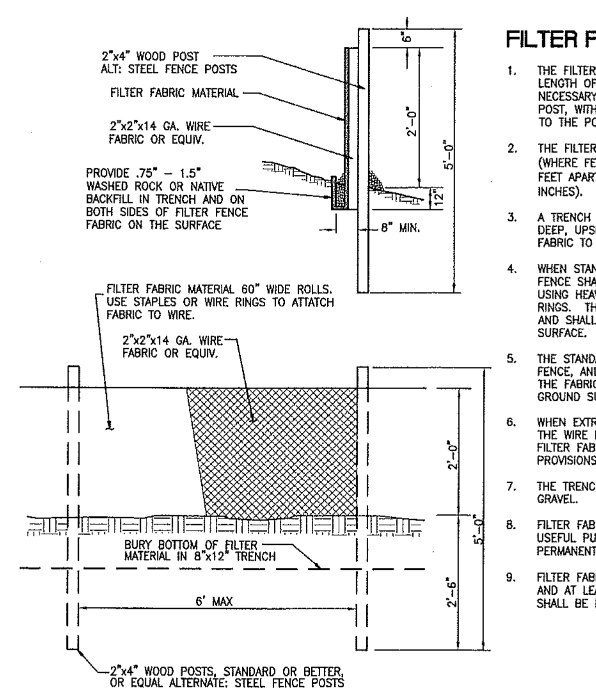


Figure 4.14 - Check Dams

4-82 City of Lacey 2010 Stormwater Design Manual



FILTER FABRIC FENCE DETAIL

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FILTER FABRIC FENCE INSTALLATION NOTES

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
3. A TRENCH SHALL BE EXCAVATED, ROUGHLY 8 INCHES WIDE AND 12 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
4. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE 5 APPLYING.
7. THE TRENCH SHALL BE BACKFILLED WITH 3/4-INCH MINIMUM DIAMETER WASHED GRAVEL.
8. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
9. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

FEB 09 2012

FOR THE CITY OF LACEY

BY: ________________ DATE: ________

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER, 2/09/2012

Scale: Horizontal 1"=30' Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

Sheet C4 of 7

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TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

FOR

SOUTHBAY VILLAGE

GRADING INSPECTION

GRADING OPERATIONS FOR WHICH A PERMIT IS REQUIRED SHALL BE SUBJECT TO INSPECTION BY THE CITY.

PROFESSIONAL INSPECTION OF GRADING OPERATIONS SHALL BE PROVIDED BY THE CIVIL ENGINEER, SOILS ENGINEER AND THE ENGINEERING GEOLOGIST RETAINED TO PROVIDE SUCH SERVICES IN ACCORDANCE WITH THIS CHAPTER FOR ENGINEERED GRADING AND AS REQUIRED BY THE CITY FOR REGULAR GRADING.

THE CIVIL ENGINEER SHALL PROVIDE PROFESSIONAL INSPECTION WITHIN SUCH ENGINEER'S AREA OF TECHNICAL SPECIALTY, WHICH SHALL CONSIST OF OBSERVATION AND REVIEW AS TO THE ESTABLISHMENT OF LINE, GRADE AND SURFACE DRAINAGE OF THE DEVELOPMENT AREA. IF REVISED PLANS ARE REQUIRED DURING THE COURSE OF THE WORK THEY SHALL BE PREPARED BY THE CIVIL ENGINEER.

THE SOILS ENGINEER SHALL PROVIDE PROFESSIONAL INSPECTION WITHIN SUCH ENGINEER'S AREA OF TECHNICAL SPECIALTY, WHICH SHALL INCLUDE OBSERVATION DURING GRADING AND TESTING FOR REQUIRED COMPACTION. THE SOILS ENGINEER SHALL PROVIDE SUFFICIENT OBSERVATION DURING THE PREPARATION OF THE NATURAL GROUND AND PLACEMENT AND COMPACTION OF THE FILL TO VERIFY THAT SUCH WORK IS BEING PERFORMED IN ACCORDANCE WITH THE CONDITIONS OF THE APPROVED PLAN AND THE APPROPRIATE REQUIREMENTS OF THIS CHAPTER. REVISED RECOMMENDATIONS RELATING TO CONDITIONS DIFFERING FROM THE APPROVED SOILS ENGINEERING AND ENGINEERING GEOLOGY REPORTS SHALL BE SUBMITTED TO THE PERMITTEE, THE CITY AND THE CIVIL ENGINEER.

THE ENGINEERING GEOLOGIST SHALL PROVIDE PROFESSIONAL INSPECTION WITHIN SUCH ENGINEER'S AREA OF TECHNICAL SPECIALTY, WHICH SHALL INCLUDE PROFESSIONAL INSPECTION OF THE BEDROCK EXCAVATION TO DETERMINE IF CONDITIONS ENCOUNTERED ARE IN CONFORMANCE WITH THE APPROVED REPORT. REVISED RECOMMENDATIONS RELATING TO CONDITIONS DIFFERING FROM THE APPROVED ENGINEERING GEOLOGY REPORT SHALL BE SUBMITTED TO THE SOILS ENGINEER.

THE PERMITTEE SHALL BE RESPONSIBLE FOR THE WORK TO BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, AND THE PERMITTEE SHALL ENGAGE CONSULTANTS, IF REQUIRED, TO PROVIDE PROFESSIONAL INSPECTIONS ON A TIMELY BASIS. THE PERMITTEE SHALL ACT AS A COORDINATOR BETWEEN THE CONSULTANTS, THE CONTRACTOR AND THE CITY. IN THE EVENT OF CHANGED CONDITIONS, THE PERMITTEE SHALL BE RESPONSIBLE FOR INFORMING THE CITY OF SUCH CHANGE AND SHALL PROVIDE REVISED PLANS FOR APPROVAL.

THE CITY SHALL INSPECT THE PROJECT AT THE VARIOUS STAGES OF WORK REQUIRING APPROVAL TO DETERMINE THAT ADEQUATE CONTROL IS BEING EXERCISED BY THE PROFESSIONAL CONSULTANTS.

IF, IN THE COURSE OF FULFILLING THEIR RESPECTIVE DUTIES UNDER THIS CHAPTER, THE CIVIL ENGINEER, THE SOILS ENGINEER OR THE ENGINEERING GEOLOGIST FINDS THAT THE WORK IS NOT BEING DONE IN CONFORMANCE WITH THIS CHAPTER OR THE APPROVED GRADING PLANS, THE DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE PERMITTEE AND TO THE CITY.

IF THE CIVIL ENGINEER, THE SOILS ENGINEER, OR THE ENGINEERING GEOLOGIST OF RECORD IS CHANGED DURING GRADING, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THEIR RESPONSIBILITY WITHIN THE AREA OF TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE CITY IN WRITING OF SUCH CHANGE PRIOR TO THE RECOMMENCEMENT OF SUCH GRADING.

COMPLETION OF WORK

UPON COMPLETION OF THE ROUGH GRADING WORK AND AT THE FINAL COMPLETION OF THE WORK, THE FOLLOWING REPORTS AND DRAWINGS AND SUPPLEMENTS THERETO ARE REQUIRED FOR ENGINEERED GRADING OR WHEN PROFESSIONAL INSPECTION IS PERFORMED FOR REGULAR GRADING, AS APPLICABLE.

AN AS-BUILT GRADING PLAN PREPARED BY THE CIVIL ENGINEER RETAINED TO PROVIDE SUCH SERVICES SHOWING ORIGINAL GROUND SURFACE ELEVATIONS, AS-GRADED GROUND SURFACE ELEVATIONS, LOT DRAINAGE PATTERNS, AND THE LOCATIONS AND ELEVATIONS OF SURFACE DRAINAGE FACILITIES AND OF THE OUTLETS OF SUBSURFACE DRAINS. AS-CONSTRUCTED LOCATIONS, ELEVATIONS AND DETAILS OF SUBSURFACE DRAINS SHALL BE SHOWN AS REPORTED BY THE SOILS ENGINEER.

CIVIL ENGINEERS SHALL STATE THAT TO THE BEST OF THEIR KNOWLEDGE THE WORK WITHIN THEIR AREA OF RESPONSIBILITY WAS DONE IN ACCORDANCE WITH THE FINAL APPROVED GRADING PLAN.

A REPORT PREPARED BY THE SOILS ENGINEER RETAINED TO PROVIDE SUCH SERVICES IN ACCORDANCE WITH THIS CHAPTER, INCLUDING LOCATIONS AND ELEVATIONS OF FIELD DENSITY TESTS, SUMMARIES OF FIELD AND LABORATORY TESTS, OTHER SUBSTANTIATING DATA, AND COMMENTS ON ANY CHANGES MADE DURING GRADING AND THEIR EFFECT ON THE RECOMMENDATIONS MADE IN THE APPROVED SOILS ENGINEERING INVESTIGATION REPORT.

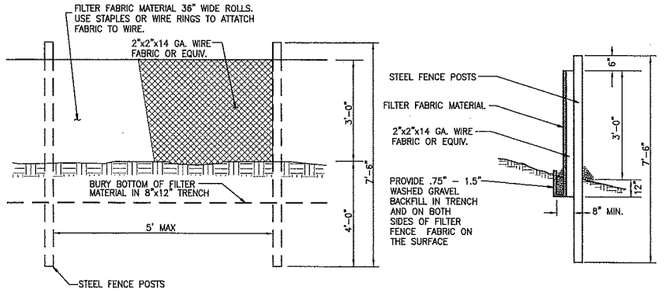
SOIL ENGINEERS SHALL SUBMIT A STATEMENT THAT, TO THE BEST OF THEIR KNOWLEDGE, THE WORK WITHIN THEIR AREA OF RESPONSIBILITIES IS IN ACCORDANCE WITH THE APPROVED SOILS ENGINEERING REPORT AND APPLICABLE PROVISIONS OF THIS CHAPTER.

A REPORT PREPARED BY THE ENGINEERING GEOLOGIST RETAINED TO PROVIDE SUCH SERVICES IN ACCORDANCE WITH THIS CHAPTER, INCLUDING A FINAL DESCRIPTION OF THE GEOLOGY OF THE SITE AND ANY NEW INFORMATION DISCLOSED DURING THE GRADING AND THE EFFECT OF SAME ON RECOMMENDATIONS INCORPORATED IN THE APPROVED GRADING PLAN.

ENGINEERING GEOLOGISTS SHALL SUBMIT A STATEMENT THAT, TO THE BEST OF THEIR KNOWLEDGE, THE WORK WITHIN THEIR AREA OF RESPONSIBILITY IS IN ACCORDANCE WITH THE APPROVED ENGINEERING GEOLOGIST REPORT AND APPLICABLE PROVISIONS OF THIS CHAPTER.

THE GRADING CONTRACTOR SHALL SUBMIT IN A FORM PRESCRIBED BY THE CITY A STATEMENT OF CONFORMANCE TO SAID AS-BUILT PLAN AND THE SPECIFICATIONS.

THE PERMITTEE SHALL NOTIFY THE CITY WHEN THE GRADING OPERATION IS READY FOR FINAL INSPECTION. FINAL APPROVAL SHALL NOT BE GIVEN UNTIL ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE FACILITIES AND THEIR PROTECTIVE DEVICES, AND ALL EROSION-CONTROL MEASURES HAVE BEEN COMPLETED IN ACCORDANCE WITH THE FINAL APPROVED GRADING PLAN, AND THE REQUIRED REPORTS HAVE BEEN SUBMITTED.



POND SILT FENCE BAFFLE DETAIL

NOT TO SCALE

FEB 09 2012

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 9, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS FOR SOUTHBAY VILLAGE

For:

DANIEL K. BALMELLI — STATE OF WASHINGTON — 15672 — REGISTERED PROFESSIONAL ENGINEER — 2/09/2012

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

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Checked AS	
Approved DKB	
Date 2/10/11	

Job Number 15426

Sheet C5 of 7

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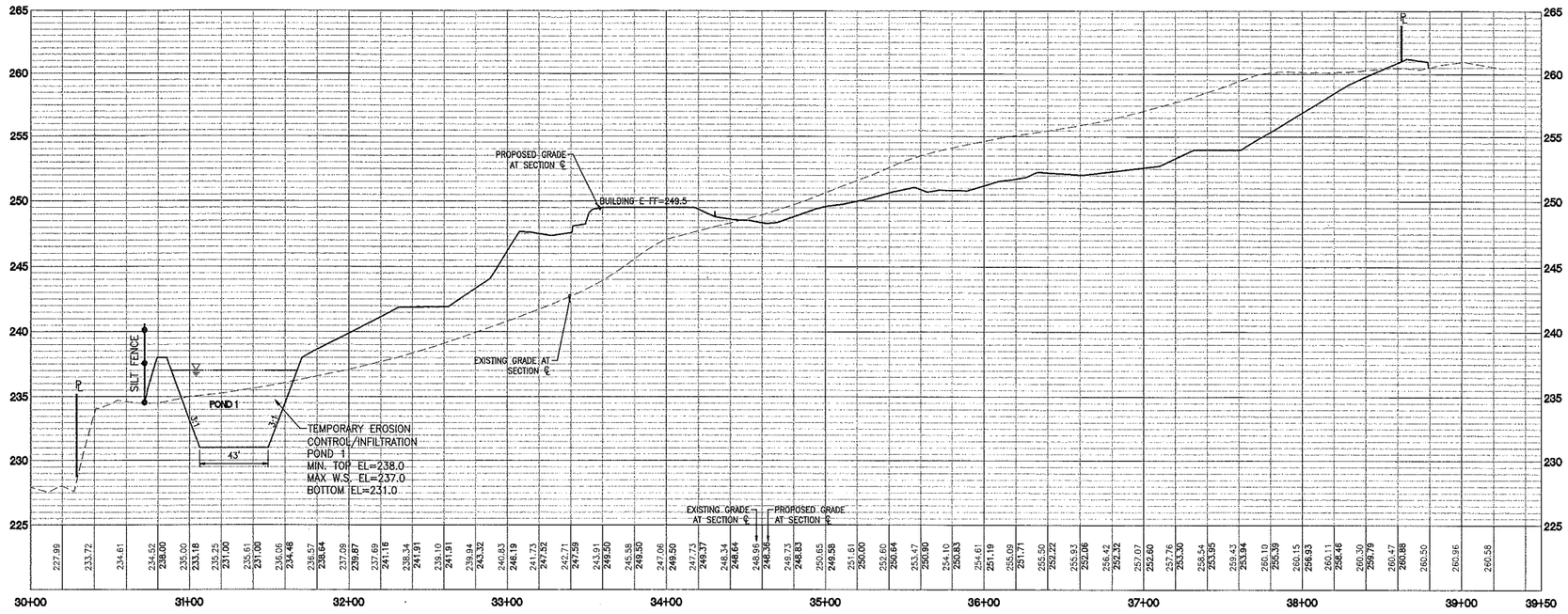
TEMPORARY EROSION AND SEDIMENTATION CONTROL SECTIONS

FOR

SOUTHBAY VILLAGE



SECTION C-C

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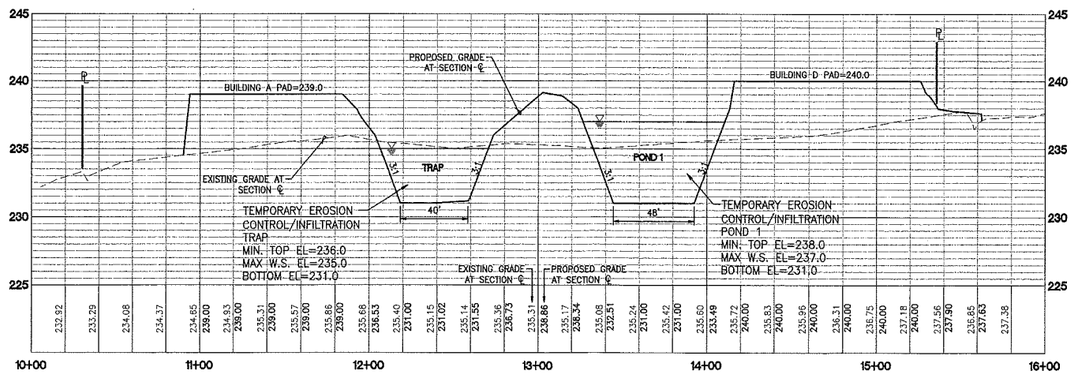

SECTION A-A

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FEB 09 2012

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

No.	Date	By	Chd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROL SECTIONS FOR SOUTHBAY VILLAGE

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

For

DANIEL K. BALLASIOTES — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER — 2/09/2012

Scale:			
Horizontal	1"=40'	Vertical	N/A

Designed JKB Drawn CP Checked AS Approved DKB Date 12/22/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426 Sheet C6 of 7

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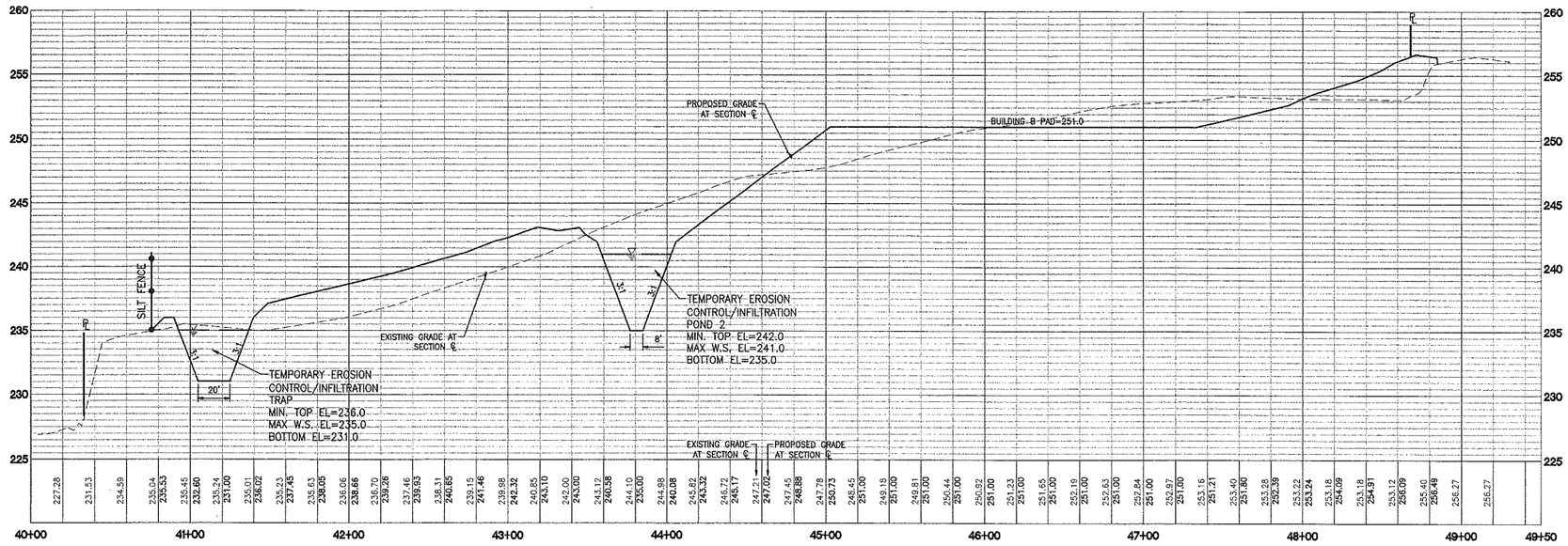
TEMPORARY EROSION AND SEDIMENTATION CONTROL SECTIONS

FOR

SOUTHBAY VILLAGE



SECTION D-D

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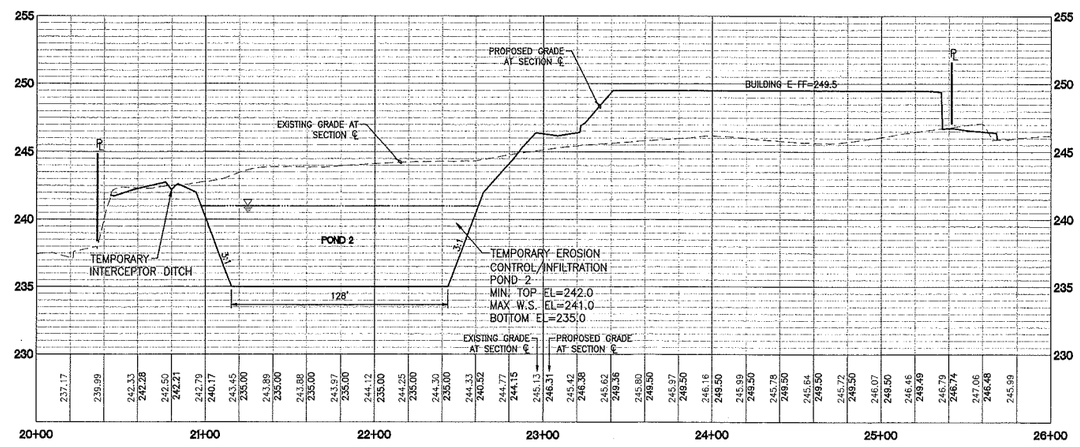

SECTION B-B

1"=40' H 1"=5' V

FEB 09 2012

FOR THE CITY OF LACEY

BY: _____ DATE: _____

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EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROL SECTIONS FOR SOUTHBAY VILLAGE

For:

DANIEL K. BALLASIOTES — STATE OF WASHINGTON — 20672 — REGISTERED PROFESSIONAL ENGINEER — 2/09/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/22/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

BARGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

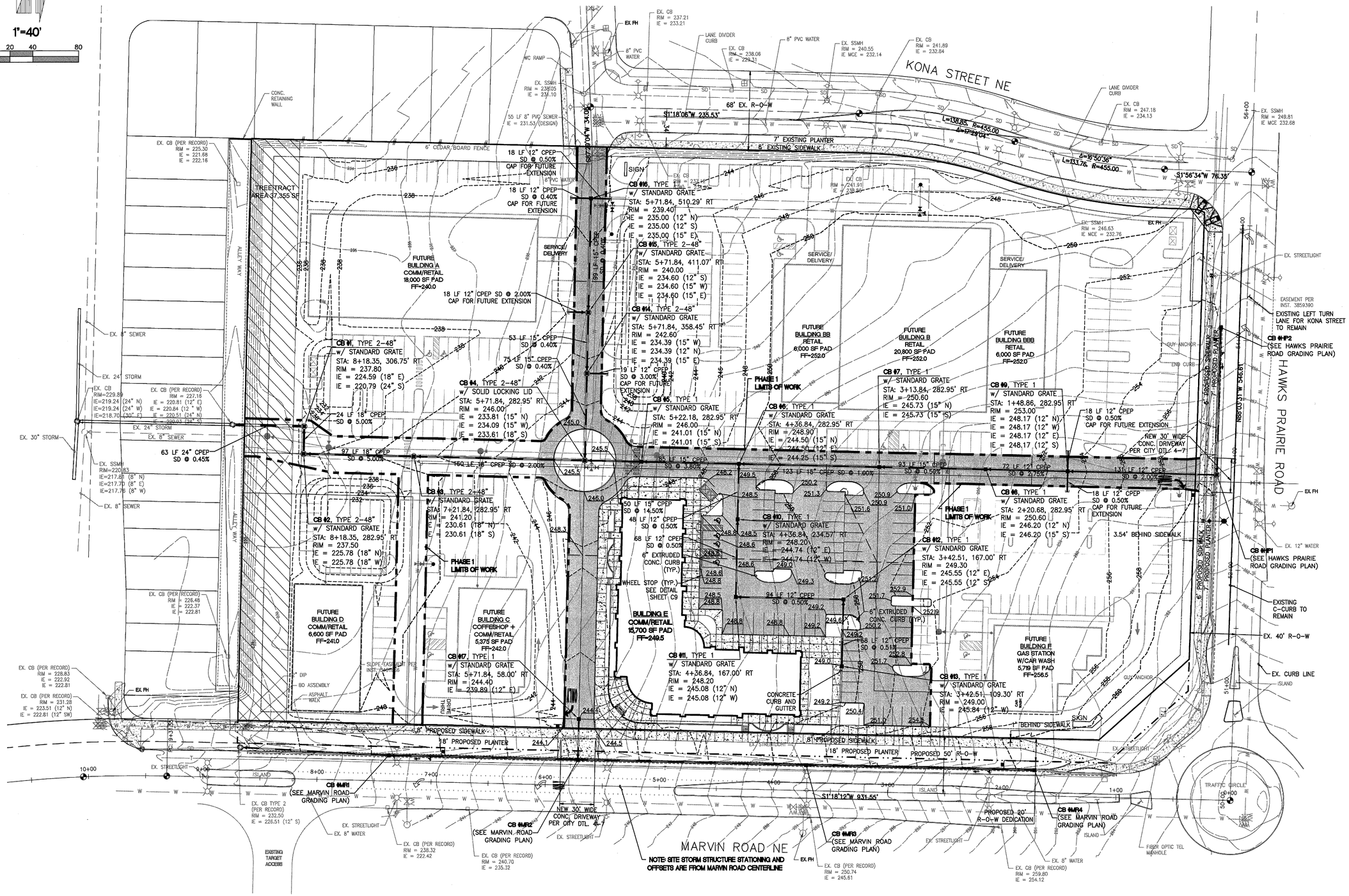
Job Number 15426

Sheet C7 of 7

File:P:\15000s\15426\preliminary\15426-pes2.dwg Date/Time:2/9/2012 1:44 PM Scale:1:1_XREF CPHILLIPPIDES Xref: , z15426-pb.dwg, dan-b.dwg, z15426-pfp.dwg

GRADING AND DRAINAGE PLAN
FOR
SOUTHBAY VILLAGE

1"=40'
0 20 40 80



CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

GRADING AND DRAINAGE PLAN
SOUTHBAY VILLAGE

For:

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

OWEN K. BARGHAUSEN — STATE OF WASHINGTON — 15472 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=40' Vertical N/A
Designed DKB Drawn CP Checked KS Approved DKB Date 12/2/11

Job Number 15426
Sheet C8 of 26

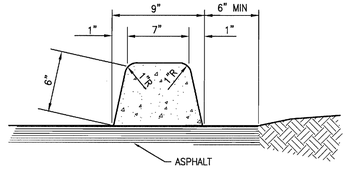
File:P:\15000s\15426\preliminary\15426-pgm.dwg Date/Time:1/20/2012 2:17 PM Scale:1" = 1' MYORK Xref: ; z15426-ps.dwg, z15426-pl.dwg, z15426-pp.dwg, dan-b.dwg, z15426-pb.dwg

CONSTRUCTION NOTES AND DETAILS
FOR
SOUTHBAY VILLAGE

GENERAL NOTES (STORM DRAIN CONSTRUCTION)

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF LACEY STANDARDS AND THE MOST CURRENT COPY OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE STATE OF WASHINGTON, DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE 'K' PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF LACEY SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. A GRADING PERMIT FOR STORM POND CONSTRUCTION MAY BE REQUIRED.
5. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
6. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF LACEY CONSTRUCTION INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
9. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING CHAPTER OF THE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS.
10. TEMPORARY EROSION CONTROL/WATER POLLUTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE WSDOT/APWA STANDARD SPECIFICATIONS AND THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR LACEY. AT NO TIME, WILL SILTS AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PROVISIONS HAVE BEEN DESIGNED.
11. STORM DRAIN PIPE SHALL BE ON THE WSDOT QUALIFIED PRODUCTS LIST FOR THE SPECIFICATION LISTED BELOW:
    A. PLAIN CONCRETE STORM SEWER PIPE OR REINFORCED CONCRETE STORM SEWER PIPE PER WSDOT STANDARD SPECIFICATION 9-05.7.
    B. SOLID WALL PVC STORM SEWER PIPE PER WSDOT STANDARD SPECIFICATION 9-05.12(1).
    C. DUCTILE IRON SEWER PIPE PER WSDOT STANDARD SPECIFICATION 9-05.13.
    D. HANCOR BLUE SEAL AND ADVANCED DRAINAGE SYSTEMS (ADS) N-12 HDPE UP TO 36" IN DIAMETER PER WSDOT STANDARD SPECIFICATION 9-05.20.
12. ALL STORM DRAINAGE SYSTEMS SHALL BE AIR TESTED AT 4 PSI EXCEPT CONCRETE PIPE WHICH SHALL BE TESTED PER WSDOT/APWA STANDARD FOR CONCRETE STORM PIPE. ALL FLEXIBLE PIPE SHALL BE MANDREL TESTED PER WSDOT/APWA STANDARDS. TESTING SHALL BE DONE BY THE CONTRACTOR.
13. TESTING OF THE STORM SEWER SHALL INCLUDE VIDEO TAPING OF THE MAIN BY THE CONTRACTOR. IMMEDIATELY PRIOR TO VIDEO TAPING, ENOUGH WATER SHALL BE RUN DOWN THE LINE SO IT COMES OUT THE LOWER CATCH BASIN. A COPY OF THE VIDEO TAPE SHALL BE SUBMITTED TO THE CITY OF LACEY. ACCEPTANCE OF THE LINE WILL NOT BE MADE UNTIL AFTER THE TAPE HAS BEEN REVIEWED AND APPROVED BY THE CITY. TESTING SHALL TAKE PLACE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPACTION OF THE ROADWAY SUBGRADE IS COMPLETE.
14. SPECIAL STRUCTURES, OIL/WATER SEPARATORS AND OUTLET CONTROLS SHALL BE INSTALLED PER PLANS AND MANUFACTURERS' RECOMMENDATIONS.
15. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR LACEY, SECTION 9.4, WET SEASON, DRY SEASON REQUIREMENTS FOR SITE STABILIZATION AND SECTION 9.14.16, EROSION CONTROL SEEDING. FOR SITES WHERE VEGETATION HAS BEEN PLANTED THROUGH HYDROSEEDING, THE FINANCIAL GUARANTEE WILL NOT BE RELEASED UNTIL THE VEGETATION HAS BEEN THOROUGHLY ESTABLISHED.
16. WHERE CONNECTIONS REQUIRE "FIELD VERIFICATIONS", CONNECTION POINTS WILL BE EXPOSED BY CONTRACTOR AND FITTINGS VERIFIED 48 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
17. ALL CATCH BASINS/MANHOLES SHALL HAVE PADS PER LACEY DETAIL.
18. ANY CHANGES TO THE DESIGN SHALL FIRST BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF LACEY.
19. ALL STORM PIPE SHALL BE A MINIMUM OF 12 INCH DIAMETER FOR MAINS AND CROSSINGS.
20. "DUMP NO WASTE DRAINS TO GROUND WATER" SHALL BE STENCILED WITH WHITE TRAFFIC PAINT BY EACH CATCH BASIN.

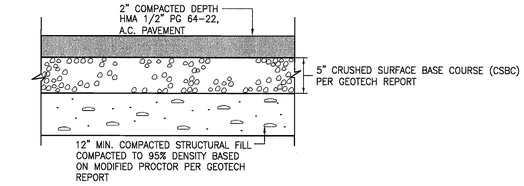
09/2009



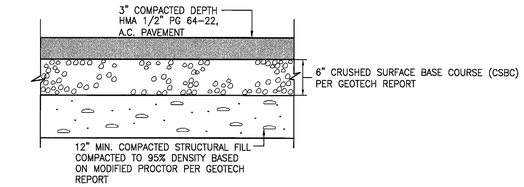
EXTRUDED CONCRETE CURB DETAIL
NOT TO SCALE

CEMENT CONCRETE
VERTICAL CURB AND GUTTER

CURB AND GUTTER DETAIL
WSDOT STANDARD PLAN F-10.12-00
NOT TO SCALE



LIGHT DUTY
TYPICAL PAVING SECTION
NOT TO SCALE



HEAVY DUTY
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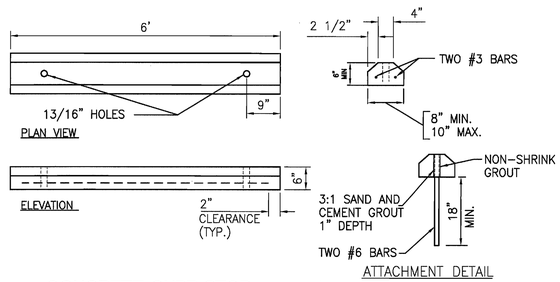

CONCRETE CURB STOP
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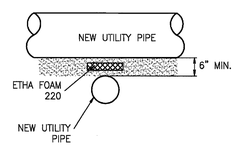


MINIMUM CLEARANCE DETAIL
NOT TO SCALE

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: CONSTRUCTION NOTES AND DETAILS FOR SOUTHBAY VILLAGE

S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

For:

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BARGHAUSEN — STATE OF WASHINGTON — 15672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal N/A Vertical N/A

Designed CP Drawn CP Checked AS Approved DKB Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES

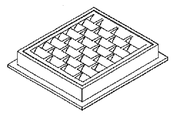
Job Number 15426

Sheet C9 of 26

File:P:\15000s\15426\preliminary\15426-d1.dwg Date/Time:1/20/2012 2:21 PM Scale:1:1 MYORK Xref: , z15426-pb.dwg, dan-b.dwg

STORM DRAINAGE DETAILS
FOR
SOUTHBAY VILLAGE

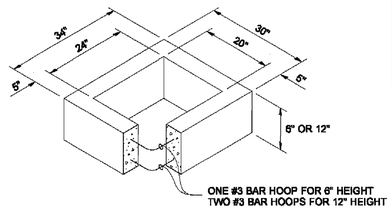
DRAWN BY: MARK SUKA



FRAME AND VANED GRATE

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP * (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"

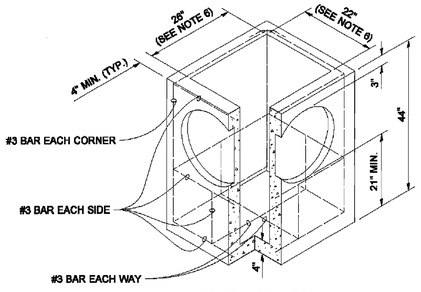
* CORRUGATED POLYETHYLENE STORM SEWER PIPE



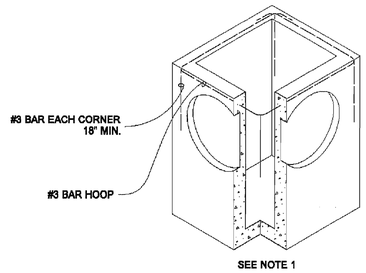
RECTANGULAR ADJUSTMENT SECTION

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION,** fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20". Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification 9-04.3.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5'.
4. The frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1:24 or steeper.
6. The opening shall be measured at the top of the precast base section.
7. All pickup holes shall be grouted full after the basin has been placed.



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

MATTHEW J. WITBECK
STATE OF WASHINGTON
13508
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES JULY 1, 2007

CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-00

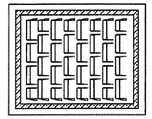
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Harold J. Peterfeso STATE DESIGN ENGINEER — *06-01-06* DATE

Washington State Department of Transportation

NO DUMPING FLOWS TO WATERWAYS



NO DUMPING FLOWS TO WATERWAYS

NOTES:
1. CENTER STENCIL 3" FROM ROADSIDE EDGE OF CATCH BASIN.
2. STENCIL LETTERING MUST BE 2" IN HEIGHT AND INSTALLED AS SHOWN ABOVE.
3. STENCIL LETTERING MUST BE WHITE.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

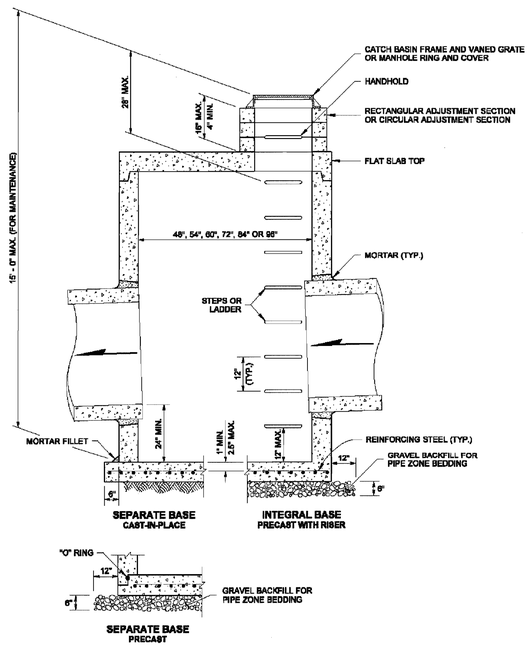
CATCH BASIN MESSAGE
NO DUMPING
FLOWS TO WATERWAYS

APPROVED _____ CITY ENGINEER — DWG. NO. 5-1

DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09

DGS-1.DWG

DRAWN BY: ADAM COCHRAN



NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification 9-04.3.

CATCH BASIN DIMENSIONS						
CATCH BASIN DIAMETER	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL $in^2/ft.$ IN EACH DIRECTION	
					SEPARATE BASE	INTEGRAL BASE
48"	4"	6"	36"	8"	0.23	0.15
54"	4.5"	8"	42"	8"	0.19	0.19
60"	5"	8"	48"	8"	0.25	0.25
72"	6"	8"	60"	12"	0.35	0.24
84"	8"	12"	72"	12"	0.39	0.29
96"	8"	12"	84"	12"	0.39	0.29

PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ①	SOLID WALL PVC②	PROFILE WALL PVC③
48"	24"	30"	24"	27"	30"
54"	30"	36"	30"	27"	36"
60"	36"	42"	36"	36"	42"
72"	42"	54"	42"	36"	48"
84"	54"	60"	54"	36"	48"
96"	60"	72"	60"	36"	48"

① Corrugated Polyethylene Storm Sewer Pipe (Std. Spec. 9-05.20)
② (Std. Spec. 9-05.12(1))
③ (Std. Spec. 9-05.12(2))

MATTHEW J. WITBECK
STATE OF WASHINGTON
13508
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES JULY 1, 2007

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Harold J. Peterfeso STATE DESIGN ENGINEER — *06-01-06* DATE

Washington State Department of Transportation

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
STORM DRAINAGE DETAILS
FOR
SOUTHBAY VILLAGE

For:

DANIEL K. BARGHAUSEN — STATE OF WASHINGTON — 15426 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

18215 72ND AVENUE SOUTH
KENT, WA 98032
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS, INC.

Designed GP	Scale:	
Drawn GP	Horizontal	AS SHOWN
Checked AS	Vertical	AS SHOWN
Approved DKB		
Date 2/10/11		

Job Number 15426 | Sheet C10 of 26

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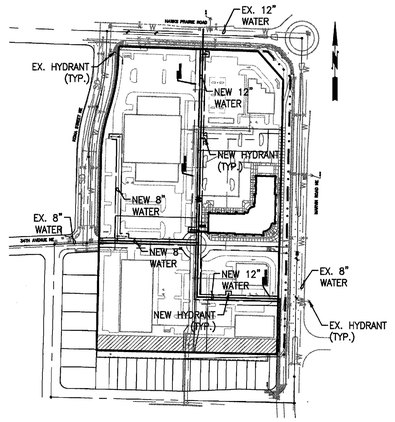
WATER MAIN EXTENSION PLAN
FOR
SOUTHBAY VILLAGE

1"=40'
0 20 40 80

KONA STREET NE
MARVIN ROAD NE
HAWKS PRAIRIE ROAD

EX. CB RIM = 237.21 IE = 233.21
EX. FH
LANE DIVIDER CURB
EX. CB RIM = 238.06 IE = 229.31
8" PVC WATER
EX. SSMH RIM = 240.55 IE MCE = 232.14
EX. CB RIM = 241.89 IE = 232.84
WC RAMP
EX. SSMH RIM = 238.05 IE = 231.10
55 LF 8" PVC SEWER IE = 231.53 (DESIGN)
CONC. RETAINING WALL
68' EX. R-O-W
S1°18'06"W 235.53'
L=138.85, R=455.00
Δ=17°29'04"
L=133.76, R=455.00
Δ=16°50'38"
EX. SSMH RIM = 246.63 IE MCE = 232
EX. CB (PER RECORD) RIM = 225.30 IE = 221.68 IE = 222.16
6' CEDAR BOARD FENCE
8' TYPE II LS
SIGN
EX. CB RIM = 237.12 IE(W) = 234.05
EX. CB RIM = 241.91 IE = 238.86
TREE TRACT AREA 37,355 SF
ALLEY WAY
STA: 5+67.09, 551.66'RT CONNECT TO EX. 8" WATER MAIN
STA: 5+65.84, 504.29'RT INSTALL: 1-8" TEE (MJxFL) 1-8" GATE VALVE (FLxMJ) 1-2" BLOW-OFF ASSEMBLY PER CITY OF LACEY STD. DTL 6-10.2 CONC. BLOCKING
47 LF 8" D.I. WATER S89° 06' 18.06"E
FUTURE FIRE HYDRANT
FUTURE FIRE HYDRANT
15' UTILITY EASEMENT
SERVICE/ DELIVERY
FUTURE BUILDING A COMM/RETAIL 18,000 SF PAD FF=240.0
STA: 5+32.97, 276.95'RT INSTALL: 2-12"x8" TEE (FLxFL) 2-12" ADAPTORS (FLxMJ) 2-8" GATE VALVE (FLxRJ) 24 LF 8" D.I. SPOOL 1-FIRE HYDRANT ASSEMBLY PER CITY OF LACEY STD. DTL. 6-8 CONC. BLOCKING
N68° 41' 48.00"W 227 LF 8" D.I. WATER
STA: 5+21.68, 276.95'RT INSTALL: 16 LF 2" DOMESTIC CL 200 POLY WATER SERVICE WITH 1-1" WATER METER 1-1" RPBA SEE DETAIL SHEET
33 LF 12" D.I. WATER N1° 18' 12.00"E
FDC
PHASE 1 LIMITS OF WORK
FUTURE BUILDING BB RETAIL 6,000 SF PAD FF=252.0
FUTURE BUILDING B RETAIL 20,800 SF PAD FF=252.0
FUTURE BUILDING BBB RETAIL 6,000 SF PAD FF=252.0
STA: 2+81.84, 276.95'RT INSTALL: 1-12"x6" TEE (MJxFL) 1-6" GATE VALVE (FLxRJ) 12 LF 6" D.I. SPOOL 1-FIRE HYDRANT ASSEMBLY PER CITY OF LACEY STD. DTL. 6-8 CONC. BLOCKING
PHASE 1 LIMITS OF WORK
NEW 30' WIDE CONC. DRIVEWAY PER CITY DTL. 4-7
67 LF 12" D.I. WATER N1° 18' 12.00"E
END CURB
STA: 7+15.84, 276.95'RT INSTALL: 1-12"x6" 90° BEND (LU) 1-TYPE 1 BEND MARKER CONC. BLOCKING
150 LF 12" D.I. WATER N1° 18' 12.00"E
30 LF 6" D.I. FIRE LINE (RJ)
STA: 5+65.84, 276.95'RT INSTALL: 1-12"x8" TEE (FL) 2-12" GATE VALVES (FLxMJ) 1-8" GATE VALVE (FLxMJ) CONC. BLOCKING
251 LF 12" D.I. WATER N1° 18' 12.00"E
15' UTILITY EASEMENT
7.5'
STA: 0+50.60, 276.95'RT INSTALL: 1-12"x6" TEE (MJxFL) 1-6" GATE VALVE (FLxRJ) 13 LF 6" D.I. SPOOL 1-FIRE HYDRANT ASSEMBLY PER CITY OF LACEY STD. DTL. 6-8 CONC. BLOCKING
3.5' BEHIND SIDEWALK
231 LF 12" D.I. WATER N1° 18' 12.00"E
N18°03'31"W 246.67'
EX. FH
EX. 12" WATER
STA: 7+15.84, 189.17'RT INSTALL: 1-12"x6" TEE (MJxFL) 1-6" GATE VALVE (FLxRJ) FUTR. 13 LF 6" D.I. SPOOL FUTR. 1-FIRE HYDRANT ASSEMBLY PER CITY OF LACEY STD. DTL. 6-8 CONC. BLOCKING
N68° 41' 48.00"W 89 LF 12" D.I. WATER
15' UTILITY EASEMENT
DDCVA TO BE INSTALLED WITHIN FIRE SPRINKLER ROOM
STA: 5+18.27, 276.95'RT INSTALL: 16 LF 2" POLY IRRIGATION SERVICE WITH 1-1" WATER METER 1-1" DCVA SEE DETAIL SHEET
HAWKS PRAIRIE RD. STA: 52+77.12, 13.74'RT CONNECT TO EXISTING WATER MAIN INSTALL: 1-12" FULL BODY TAPPING TEE (FL) 1-12" GATE VALVES (FLxMJ) CONCRETE BLOCKING
EX. 40' R-O-W
FUTURE BUILDING C COFFEESHOP + COMM/RETAIL 5,375 SF PAD FF=242.0
148 LF 12" D.I. WATER MAIN
BUILDING E COMM/RETAIL 15,700 SF PAD FF=249.5
FUTURE BUILDING F GAS STATION W/CAR WASH 5,719 SF PAD FF=256.5
GUY ANCHOR
ISLAND
EX. CB (PER RECORD) RIM = 227.16 IE = 220.81 (12" E) IE = 220.84 (12 " W) IE = 220.51 (24" N) IE = 220.03 (24" S)
EX. CB (PER RECORD) RIM = 226.46 IE = 222.37 IE = 222.81
SLOPE EASEMENT PER INST. 3461886
12" DIP
BO ASSEMBLY
ASPHALT WALK
STA: 7+15.84, 44.45'RT INSTALL: 1-12" 90° BEND (MJ) 1-TYPE 1 BEND MARKER CONC. BLOCKING
N1° 18' 12.00"E 148 LF 12" D.I. WATER
8' PROPOSED SIDEWALK
18' PROPOSED PLANTER
8' TYPE II LS
1' BEHIND SIDEWALK
SIGN
EX. STREETLIGHT
PROPOSED 50' R-O-W
6' PROPOSED SIDEWALK
7' PROPOSED PLANTER
51°18'12"W 931.55'
PROPOSED 20' R-O-W DEDICATION
TRAFFIC CIRCLE
FIBER OPTIC TEL MANHOLE
STA: 8+64.20, 44.45'RT CONNECT TO EXISTING 12" WATER MAIN
EX. CB TYPE 2 (PER RECORD) RIM = 232.50 IE = 226.51 (12" S)
EX. 8" WATER
EX. CB (PER RECORD) RIM = 238.32 IE = 222.42
EXISTING TARGET ACCESS
NEW 30' WIDE CONC. DRIVEWAY PER CITY DTL. 4-7
EX. CB (PER RECORD) RIM = 240.70 IE = 235.32
NOTE SITE WATER MAIN STATIONING AND OFFSETS ARE FROM MARVIN ROAD CENTERLINE
EX. CB (PER RECORD) RIM = 250.74 IE = 245.61
EX. CB (PER RECORD) RIM = 259.80
10+00 9+00 8+00 7+00 6+00 5+00 4+00 3+00 2+00 1+00 50+00 51+00

WATER SYSTEM MAP



1"=200'

WATER MAIN PIPE NOTES:

1. ALL D.I. WATER MAIN PIPE UTILIZED FOR THIS PROJECT SHALL BE CLASS 52.
2. ALL C900 DR 14 WATER PIPE UTILIZED FOR THIS PROJECT SHALL BE BLUE, WHITE, OR BLACK IN COLOR.
3. ALL WATER MAIN THRUST BLOCKING THAT ARE LOCATED AGAINST OTHER UTILITY TRENCHES SHALL BE POURED AFTER THE INSTALLATION OF OTHER UTILITY WITH COMPACTED TRENCH, IN COORDINATION WITH ON-SITE GEOTECHNICAL ENGINEER. CONTRACTOR TO MINIMIZE THE WIDTH OF THE TRENCH OPENING FOR STORM PIPES WHERE THRUST BLOCKING OF WATER MAIN IS REQUIRED TO ENSURE THAT THRUST BLOCKING OF WATER MAIN IS POURED AGAINST UNDISTURBED SOIL. STORM PIPE SHALL BE INSTALLED BEFORE WATER MAIN INSTALLATION AND TRENCHES FOR STORM MAIN SHALL BE COMPACTED PRIOR TO INSTALLATION OF ANY THRUST BLOCKING.
4. APPROVED FIRE DEPARTMENT KEY-BOXES SHALL BE PROVIDED AT EACH GATE ALONG SECONDARY FIRE ACCESS TO ALLOW FIRE DEPARTMENT AND PUBLIC WORKS DEPARTMENT ACCESS TO PROJECT.
5. THE FIRE SPRINKLER UNDERGROUND PIPING SHOWN ON THE CIVIL PLANS IS CONSIDERED FOR LOCATION PURPOSES ONLY. A SEPARATE BUILDING PERMIT IS REQUIRED FOR THE INSTALLATION OF THE FIRE SPRINKLER SYSTEM UNDERGROUND PIPING. PLANS SPECIFICATION FOR THE UNDERGROUND LEAD-IN PIPING SHALL BE SUBMITTED TO THE CITY OF LACEY BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Revision	Date	By	Chkd.	Appr.

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

WATER MAIN EXTENSION PLAN
FOR
SOUTHBAY VILLAGE

For:

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

K. BALDWIN — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 20672 — 1/20/2012

Scale: Horizontal 1"=40' Vertical N/A
Designed DKB Drawn CP Checked AS Approved DKB Date 12/2/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C11 of 26

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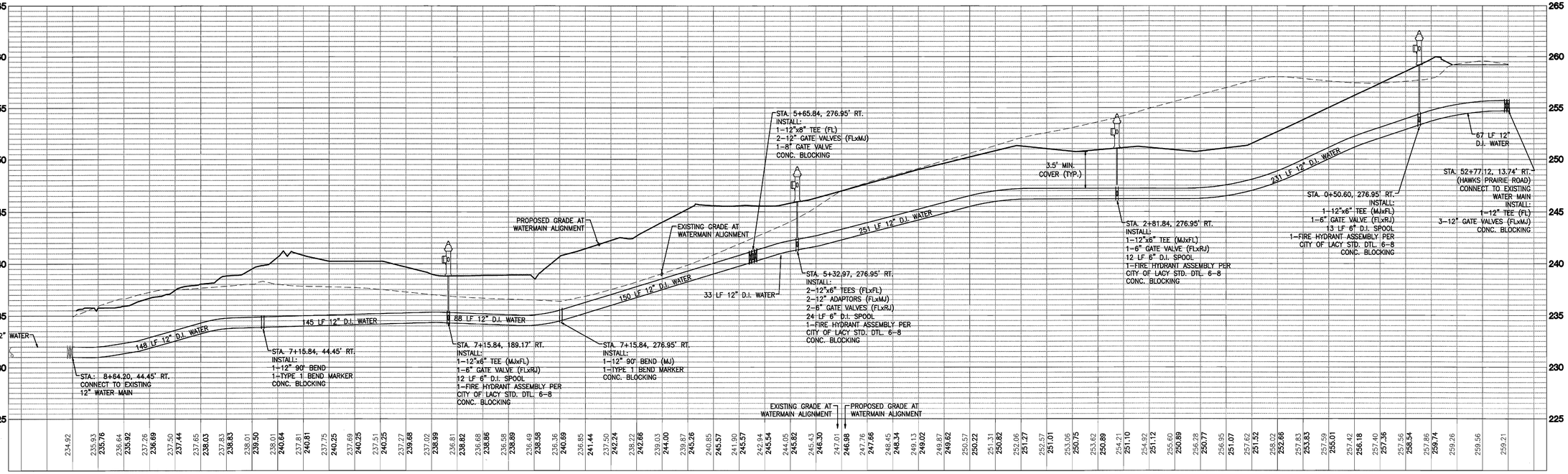
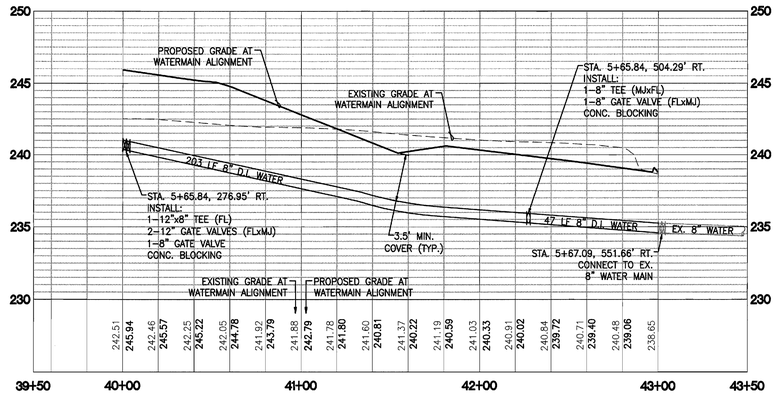
WATER MAIN PROFILE
FOR
SOUTHBAY VILLAGE





WATER MAIN PROFILE

1"=40' H 1"=5' V

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

WATER MAIN PROFILE

FOR

SOUTHBAY VILLAGE

For:

K. BARGHAUSEN — STATE OF WASHINGTON — 15426 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/2/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
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Job Number 15426

Sheet C12 of 26

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WATER MAIN NOTES AND DETAILS

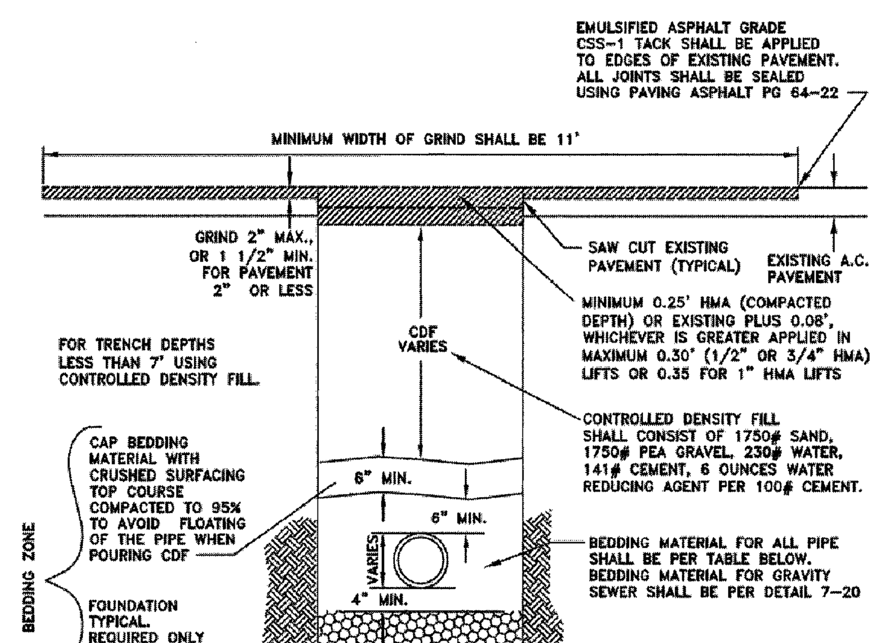
FOR

SOUTHBAY VILLAGE

GENERAL NOTES (WATER MAIN INSTALLATION):

1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH CITY OF LACEY STANDARDS AND THE MOST CURRENT COPY OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE 'K" PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF LACEY SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
5. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
6. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF LACEY CONSTRUCTION INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
9. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING CHAPTER OF THE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS.
10. TEMPORARY EROSION CONTROL/WATER POLLUTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR THE CITY OF LACEY. AT NO TIME WILL SILTS AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PREVISIONS HAVE BEEN DESIGNED.
11. WATER MAINS UP TO 10" SHALL BE AWWA C900 CLASS 200 OR DUCTILE IRON STANDARD PRESSURE CLASS RATING 350. WATER MAINS LARGER THAN 10" SHALL BE DUCTILE IRON STANDARD PRESSURE CLASS RATING 350. SEE CHAPTER 6.030B FOR MORE DETAILED PIPE SPECIFICATIONS.
12. GATE VALVES SHALL BE RESILIENT WEDGE, NRS (NON RISING STEM) WITH O-RING SEALS. VALVE ENDS SHALL BE MECHANICAL JOINT OR ANSI FLANGES. VALVES SHALL CONFORM TO AWWA C-515 LATEST REVISION. VALVES SHALL BE MUELLER, M & H, KENNEDY, CLOW R/W, WATEROUS SERIES 2500, OR AMERICAN AVK.
13. EXISTING VALVES SHALL BE OPERATED BY CITY EMPLOYEES ONLY.
14. HYDRANTS SHALL BE CITY APPROVED AS SPECIFIED ON THE HYDRANT DETAILS AND SHALL BE BAGGED UNTIL THE SYSTEM IS APPROVED.
15. THE CONTRACTOR SHALL INSTALL, CHLORINATE, AND FLUSH ALL WATER LINES. THE LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE ABOVE REFERENCED SPECIFICATION (NOTE 1) AND CHAPTER 6. 200 OF THE DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS. AFTER FLUSHING CHLORINATED WATER FROM DISINFECTED LINES, THE CONTRACTOR SHALL MEASURE CHLORINE RESIDUAL TO VERIFY THAT FLUSHING IS COMPLETE. THIS WILL BE COMPLETED PRIOR TO THE CITY REQUESTING MICROBIOLOGICAL SAMPLES.
16. ALL PIPE AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS TRACER TAPE INSTALLED 12" TO 18" UNDER THE FINAL GROUND SURFACE. THE MARKER SHALL BE PLASTIC NON-BIODEGRADABLE, METAL CORE BACKING MARKED 'WATER" WHICH CAN BE DETECTED BY A STANDARD METAL DETECTOR. TAPE SHALL BE TERRA TAPE "D" OR APPROVED EQUAL. IN ADDITION TO TRACER TAPE, INSTALL DIRECT BURY, U.S.E.14 GAUGE BLUE COATED COPPER WIRE, WRAPPED AROUND OR TAPED TO THE PIPE, AS SHOWN ON DETAIL. LOW VOLTAGE GREASE-TYPE SPLICE KITS SHALL BE USED ON TRACER WIRE. CONTINUITY TESTING OF THE WIRE WILL BE DONE BY THE CITY.
17. ALL SERVICE LINE LOCATIONS SHALL BE MARKED ON THE TOP OR FACE OF THE CURB WITH AN EMBOSSED "W" 3 INCHES HIGH AND 1/4 INCH INTO CONCRETE.
18. THE CITY WILL BE GIVEN 72 HOURS NOTICE PRIOR TO SCHEDULING A SHUTDOWN. WHERE CONNECTIONS REQUIRE "FIELD VERIFICATION", CONNECTION POINTS SHALL BE EXPOSED BY THE CONTRACTOR AND FITTINGS VERIFIED 72 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
19. SEPARATION BETWEEN WATER AND SEWER SHALL BE MAINTAINED PER DOE STANDARDS. SEE DEVELOPMENT GUIDELINE CHAPTER 6.130 FOR MORE INFORMATION.
20. A CONCRETE PAD PER DETAIL SHALL BE INSTALLED AROUND ALL VALVE BOXES AND BLOW-OFFS THAT ARE NOT IN A PAVEMENT AREA.
21. AT ANY CONNECTION TO AN EXISTING LINE WHERE A NEW VALVE IS NOT INSTALLED, THE EXISTING VALVE MUST BE PRESSURE TESTED TO CITY STANDARDS PRIOR TO CONNECTION. IF AN EXISTING VALVE FAILS TO PASS THE TEST, THE CONTRACTOR SHALL MAKE THE NECESSARY PROVISIONS TO TEST THE NEW LINE PRIOR TO CONNECTION TO THE EXISTING SYSTEM OR INSTALL A NEW VALVE.
22. THE MINIMUM BURIAL DEPTH OF ALL WATER LINES SHALL BE 42 INCHES.
23. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF THE EXISTING MAIN AND PROVIDE THE FITTINGS REQUIRED TO MAKE THE CONNECTION TO THE EXISTING MAIN.
24. AT THE CITY'S REQUEST, THE CONTRACTOR SHALL INSTALL A TEMPORARY 2 INCH BRASS BLOW OFF FOR FLUSHING AND SAMPLING ON THE EXISTING AND/OR NEW WATER MAIN. THE BLOW OFF SHALL BE CONSTRUCTED WITH A STANDARD 2 INCH TAPPING SADDLE AND FORD BRASS CORPORATION STOP WITH 2 INCH BRASS PIPE EXTENDED UP TO FINISHED GRADE. WHEN FLUSHING AND SAMPLING ARE COMPLETED, THE 2 INCH PIPE SHALL BE REMOVED. THE CORPORATION STOP SHALL BE SHUT OFF AND CAPPED TIGHT WITH THREADED BRASS CAP.
25. WHEN AN EXISTING CITY WATER MAIN IS TO BE ABANDONED, IT SHALL BE THE DEVELOPER'S RESPONSIBILITY TO COORDINATE AND ABANDON THE EXISTING MAIN. IT SHALL ALSO BE THE DEVELOPER'S RESPONSIBILITY TO INSTALL AND TRANSFER EXISTING WATER SERVICES TO THE NEW MAIN.
26. SAND SHALL BE PLACED AROUND AND UNDER SERVICE LINES BY HAND TO A HEIGHT OF 6 INCHES ABOVE AND 4 INCHES BELOW THE LINE(S). EXCAVATION FOR THE METER BOX SHALL BE AN ADDITIONAL ONE FOOT AROUND THE ENTIRE BOX AND BACKFILLED WITH SAND PER CITY DETAIL.
27. METERS 3 INCHES OR LARGER IN SIZE MUST BE ORDERED BY THE CONTRACTOR/DEVELOPER A MINIMUM OF 10 WEEKS IN ADVANCE OF INSTALLATION.
28. ALL VALVE BOX, BLOW-OFF AND MANHOLE LIDS SHALL BE CLEAN AND CLEAR OF ASPHALT OR CONCRETE BEFORE SCHEDULING A WALK THROUGH.
29. THE WATER MAIN AND APPURTENANCES AND SERVICE CONNECTIONS TO THE METER SETTER SHALL BE TESTED IN SECTIONS OF CONVENIENT LENGTHS UNDER A HYDROSTATIC PRESSURE EQUAL TO 150 PSI IN EXCESS OF THAT UNDER WHICH IT WILL OPERATE. IN NO CASE SHALL THE TEST PRESSURE BE LESS THAN 225 PSI.

REVISED: 09/2009



PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70-100
U.S. NO.4	55-100
U.S. NO. 10	35-95
U.S. NO. 20	20-80
U.S. NO. 40	10-55
U.S. NO. 100	0-10
U.S. NO. 200	0-03

GENERAL NOTES:
1. ALL MATERIALS EXCEPT H.M.A. SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH. ALLOW 24 HOURS MINIMUM FOR TRENCH PATCH TO CURE. GRIND AND PAVE FINAL PATCH AS SHOWN.

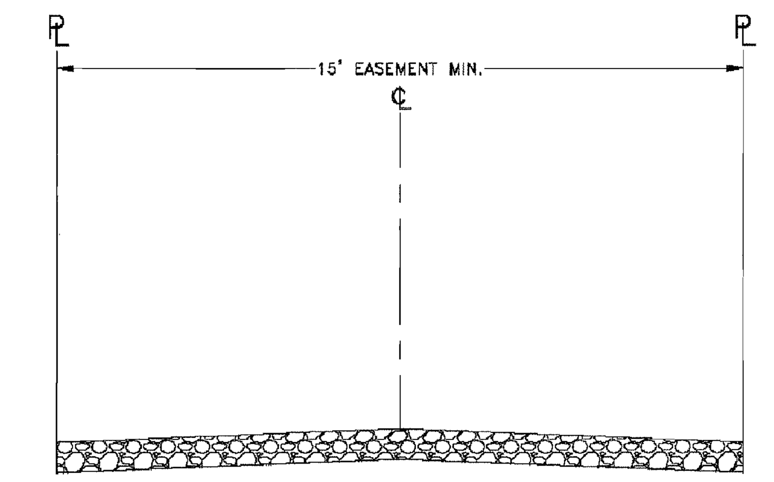
CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

PERPENDICULAR SHALLOW TRENCH RESTORATION
ARTERIALS, BLVDS. & COLLECTORS

APPROVED — CITY ENGINEER — DWG. NO. 4-8.0

DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09

DG4-8.0.DWG



GENERAL NOTES:
1. ACCESS ROADS SHALL BE INSTALLED THE FULL WIDTH OF THE EASEMENT. ADDITIONAL EASEMENT MAYBE REQUIRED FOR TURNING RADIUS, DRAINAGE REQUIREMENTS OR AS DEEMED NECESSARY BY THE CITY.
2. A "NO PARKING" SIGN SHALL BE MANUFACTURED AND INSTALLED BY THE CITY AT THE OWNERS EXPENSE. THE SIGN SHALL BE INCLUDED WITH THE SIGN REQUEST.
3. ACCESS TO THE EASEMENT SHALL BE MADE WITH A DRIVEWAY CUT.
4. ACCESS ROAD CROSS SLOPES SHALL BE DESIGNED BY THE ENGINEER AND APPROVED BY THE CITY.
5. THE ACCESS ROAD SHALL HAVE A GATE INSTALLED TO LIMIT ENTRANCE TO THE SITE. A PARKING AREA IN FRONT OF THE GATE SHALL BE PROVIDED FOR CITY VEHICLES.
6. THE ACCESS ROAD STRUCTURE REQUIREMENTS SHALL BE PER DETAIL 4-6.1.
7. PAVING OF THE ACCESS ROAD SHALL BE AS DIRECTED BY THE CITY.
8. AN ACCESS ROAD SHALL BE INSTALLED IN AN EASEMENT WHENEVER VALVES, BLOW-OFFS, FUTURE MAIN EXTENSIONS, ETC. ARE PROPOSED IN THAT EASEMENT.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

ACCESS ROAD

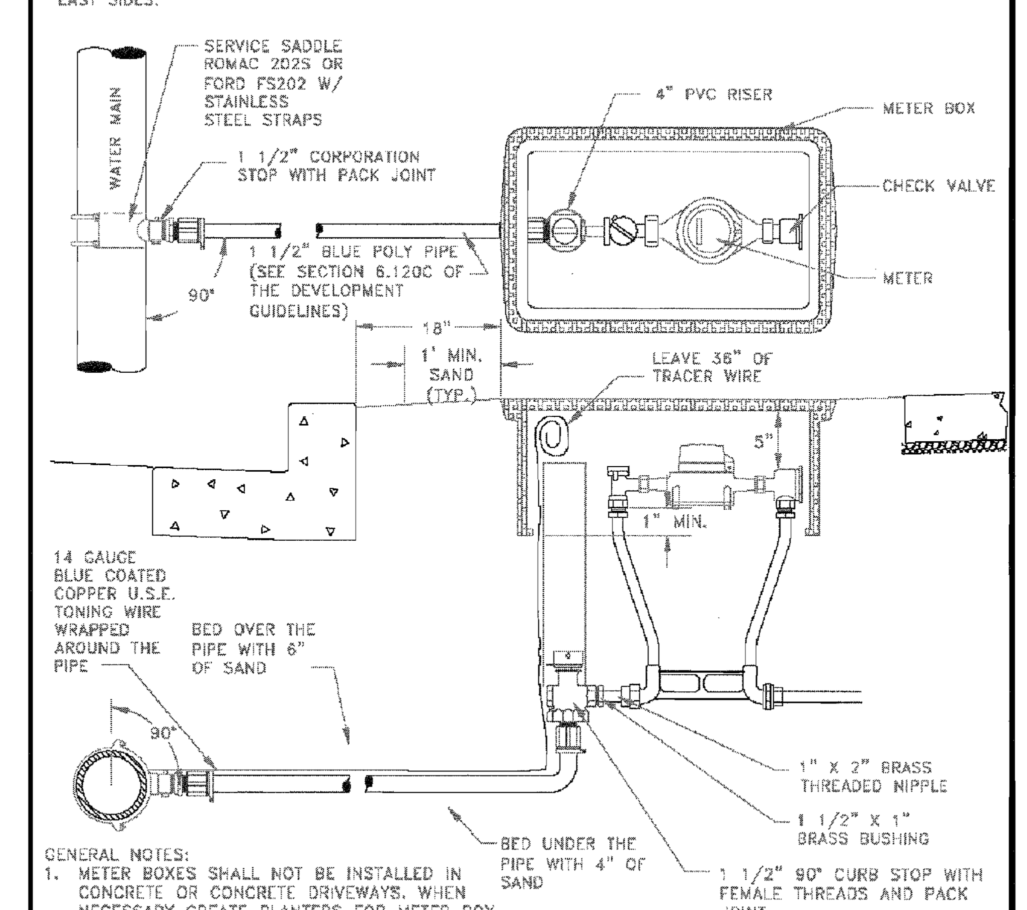
APPROVED — CITY ENGINEER — DWG. NO. 6-0

DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09

DG6-0.DWG

THE WATER MAIN IS LOCATED 6' FROM THE CENTERLINE OF ROAD ON THE NORTH OR EAST SIDES.

ENVIRONMENT	METER BOX
TO BE USED IN ALL APPLICATIONS	CHRISTY FIBRELYTE BOX & LID BOX: FL 36T-12 LID: FL 36-D W/CITY OF LACEY IN LID



GENERAL NOTES:
1. METER BOXES SHALL NOT BE INSTALLED IN CONCRETE OR CONCRETE DRIVEWAYS. WHEN NECESSARY CREATE PLANTERS FOR METER BOX INSTALLATION.
2. STAINLESS STEEL INSERTS ARE REQUIRED FOR ALL PACK JOINTS.
3. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKET AND I.P. THREADS.
4. THE ANGLE STOP DEPTH SHALL BE 1" ABOVE THE BOTTOM OF THE METER BOX.
5. FILL THE ENTIRE AREA AROUND THE METER BOX WITH 1' (MIN.) OF SAND.
6. METER SETTERS: FORD VBH 74-15W, AY-McDONALD 20-412WCDD44 OR MUELLER B2404-R2AG15.
7. CURB STOP: FORD BA 61-666G, AY-McDONALD M6102-33 OR MUELLER E25171.
8. CORP. STOP: FORD FB-11016G, AY-McDONALD M4704B-33, MUELLER E25029.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

1" SINGLE METER SERVICE TYPE 2

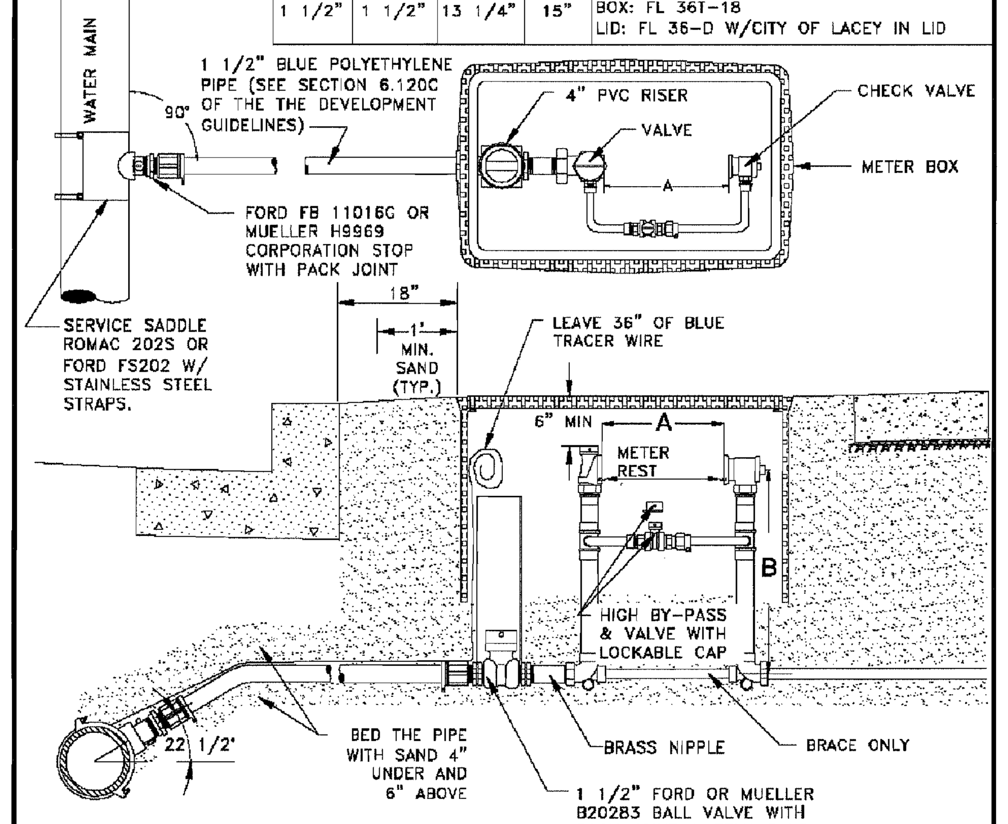
APPROVED — CITY ENGINEER — DWG. NO. 6-1.3

DES.	DWN.	CKD.	DATE
WHO	WHO	RAS	

DG6-1.3.DWG

THE WATER MAIN IS LOCATED 6' FROM THE CENTERLINE OF THE ROAD ON THE NORTH OR EAST SIDES.

METER SIZE	LINE SIZE	A	B	METER BOX IN PLANTER ONLY
1 1/2"	1 1/2"	13 1/4"	15"	CHRISTY POLYMER BOX & LID BOX: FL 36T-18 LID: FL 36-D W/CITY OF LACEY IN LID



GENERAL NOTES:
1. METER BOXES SHALL NOT BE INSTALLED IN CONCRETE OR CONCRETE DRIVEWAYS. WHEN NECESSARY CREATE PLANTERS FOR METER BOX INSTALLATION.
2. STAINLESS STEEL INSERTS ARE REQUIRED FOR ALL PACK JOINTS.
3. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKETS AND I.P. THREADS.
4. FILL THE ENTIRE AREA AROUND THE METER BOX WITH 1' OF SAND.
5. CHECK VALVES ARE REQUIRED ON ALL SETTERS.
6. THE CITY OF LACEY STANDARD FOR COPPER SETTER IS: 1 1/2" FORD VBH 76-15HB, MUELLER B2423-29900015-15 OR AY-McDONALD 20R615WDFF665 WITH HIGH BY-PASS.
7. THE BOTTOM OF THE BY-PASS SHALL BE 1" ABOVE THE BOTTOM OF THE METER BOX.

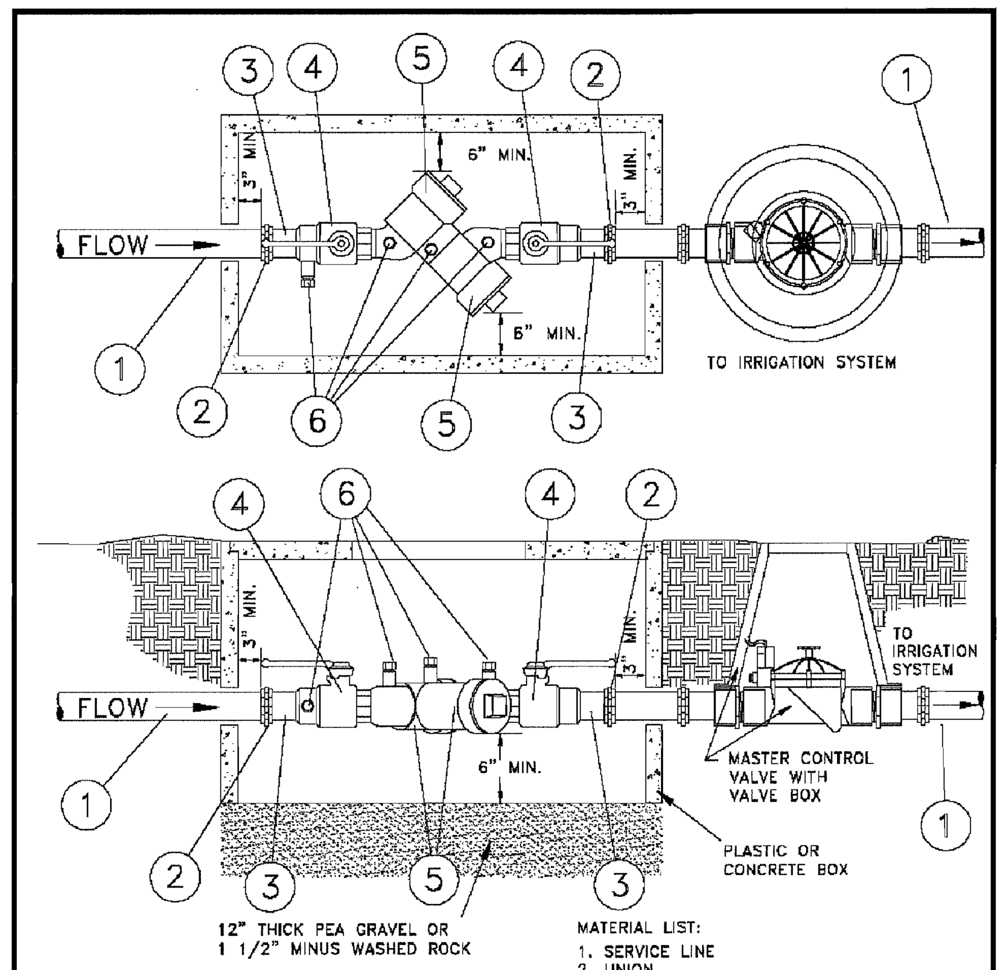
CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

1 1/2" METER SERVICE W/HIGH BYPASS

APPROVED — CITY ENGINEER — DWG. NO. 6-3

DES.	DWN.	CKD.	DATE
WHO	WHO	RAS	8/27/09

DG6-3.DWG



MATERIAL LIST:
1. SERVICE LINE
2. UNION
3. NIPPLE
4. SHUT-OFF VALVE
5. CHECK VALVE (D.S.H.S. APPROVED)
6. TESTS COCKS

GENERAL NOTES:
1. THOROUGHLY FLUSH THE LINES PRIOR TO INSTALLING DCVA.
2. DIAMETER OF PIPE AND FITTINGS =
3. REFER TO DEVELOPMENT GUIDELINES SECTION 6.110 FOR FURTHER INFORMATION.
4. IF THE IRRIGATION SYSTEM IS TAPPED OFF OF THE DOMESTIC SERVICE LINE, A LOCKABLE SERVICE VALVE MUST BE INSTALLED IN A PIT BOX 18" FROM THE DOWN STREAM SIDE OF THE DOUBLE CHECK VALVE ASSEMBLY. SEE DETAIL 6-4.6.
5. THE DEPTH OF THE VAULT SHALL NOT EXCEED 3.5'.
6. A MASTER CONTROL VALVE WITH UNIONS ON BOTH SIDES SHALL BE INSTALLED WITHIN 5' OF THE DCVA.

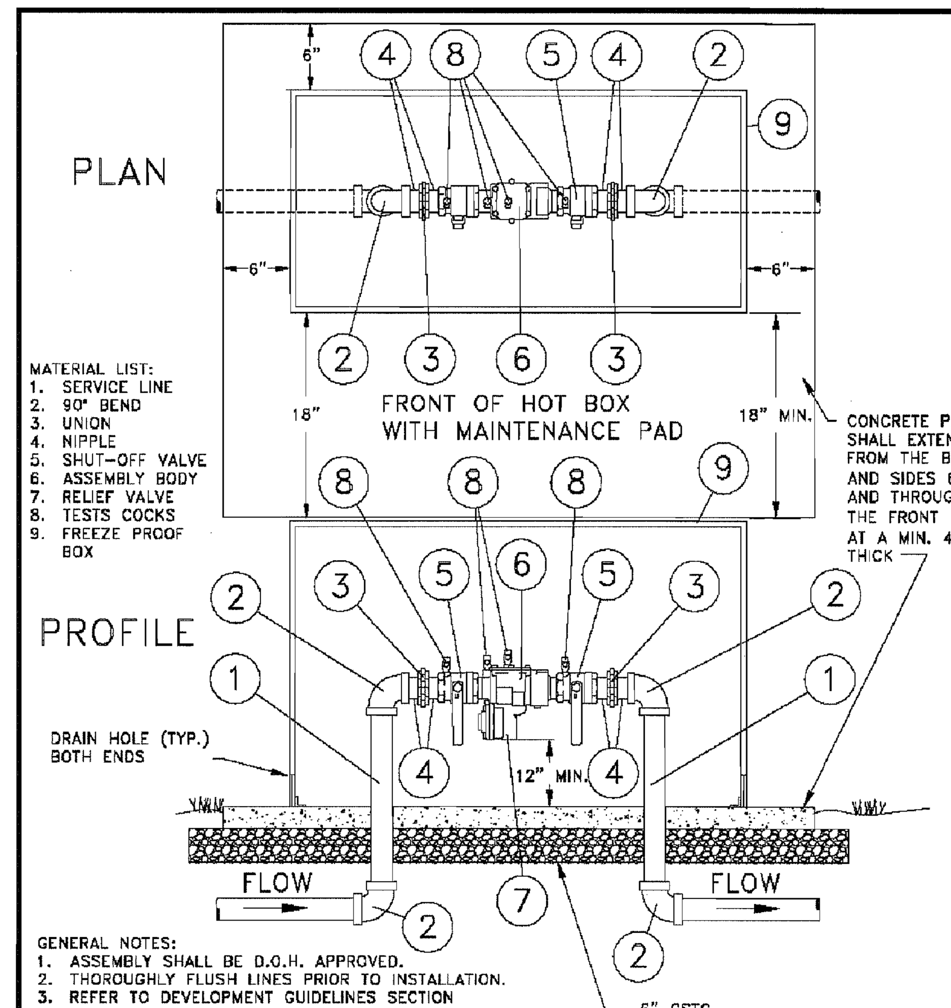
CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

DOUBLE CHECK VALVE ASSEMBLY FOR 2" OR SMALLER IRRIGATION

APPROVED — CITY ENGINEER — DWG. NO. 6-4.2

DES.	DWN.	CKD.	DATE
CM	WHO	RAS	8/27/09

DG6-4.2.DWG



MATERIAL LIST:
1. SERVICE LINE
2. 90° BEND
3. UNION
4. NIPPLE
5. SHUT-OFF VALVE
6. ASSEMBLY BODY
7. RELIEF VALVE
8. TESTS COCKS
9. FREEZE PROOF BOX

GENERAL NOTES:
1. ASSEMBLY SHALL BE D.O.H. APPROVED.
2. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION.
3. REFER TO DEVELOPMENT GUIDELINES SECTION 6.110 FOR FURTHER INFORMATION.
4. DO NOT INSTALL IN AREA SUBJECT TO FLOODING.
5. ALL RPBA SHALL BE INSTALLED IN A HOT BOX EQUIPPED WITH ELECTRICAL COMPONENTS (CONDUITS, WIRING, ETC.) AND POWER SUPPLIED BY THE OWNER TO PREVENT THE UNIT FROM FREEZING.
6. ALL PIPE AND FITTINGS SHALL BE BRASS.
7. DRAIN HOLE OPENINGS SHALL BE 1 1/2 TIMES THE DIAMENTER OF SUPPLY LINE.
8. THE PLACEMENT OF THE HOT BOX SHALL BE IN AN AREA FREE FROM OBSTACLES SUCH AS GATES, ETC. THAT MAY CAUSE DAMAGE TO IT.
9. THE HOT BOX SHALL BE NEUTRAL BEIGE.
10. ALL CITY OF LACEY COLLECTION SITES SHALL BE EQUIPPED WITH A FACTORY HEATED HOT BOX, AN 1 1/2" CONDUIT AND WIRED FROM THE CONTROL CABINET TO THE HOT BOX AND THERMOSTAT.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

REDUCED PRESSURE BACKFLOW ASSEMBLY FOR 2" OR SMALLER (OUTDOOR APPLICATION)

APPROVED — CITY ENGINEER — DWG. NO. 6-4.4

DES.	DWN.	CKD.	DATE
JC	WHO	RAS	8/27/09

DG6-4.4.DWG

FOR THE CITY OF LACEY

BY: ______________ DATE: ________
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

WATER MAIN NOTES AND DETAILS FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 25672, 1/20/2012

Scale: Horizontal N/A, Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

Sheet C13 of 26

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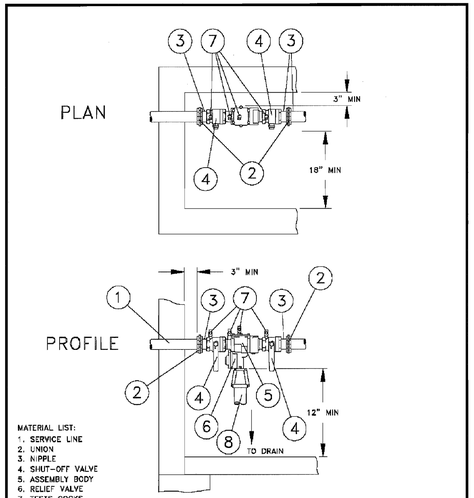
WATER MAIN DETAILS

FOR

SOUTHBAY VILLAGE

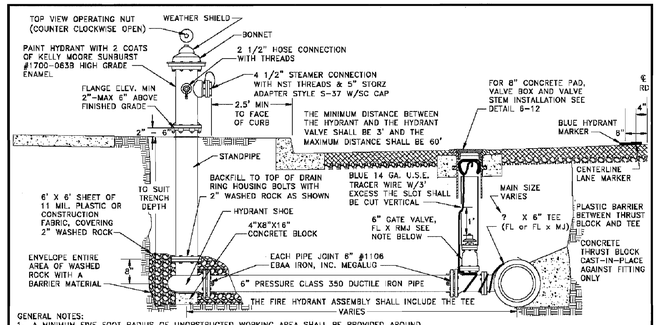


MATERIAL LIST:
1. SERVICE LINE
2. UNION
3. NIPPLE
4. SHUT-OFF VALVE
5. ASSEMBLY BODY
6. RELIEF VALVE
7. TESTS COCKS
8. DRAIN LINE

GENERAL NOTES:
1. ASSEMBLY SHALL BE D.S.H.S. APPROVED.
2. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION.
3. REFER TO DEVELOPMENT GUIDELINES SECTION 6.110 FOR FURTHER INFORMATION.
4. DRAIN LINE SHALL BE 1.5 TIMES THE DIAMETER OF SERVICE LINE AND BE SCREENED AT THE OUTFALL.
5. AN RPBA SHALL BE INSTALLED IN A HOT BOX EQUIPPED WITH ELECTRICAL COMPONENTS (CONDUIT, WIRING, ETC.) AND POWER SUPPLIED BY THE OWNER TO PREVENT THE UNIT FROM FREEZING.
6. ALL FITTINGS SHALL BE BRASS.

DG6-4.41.DWG

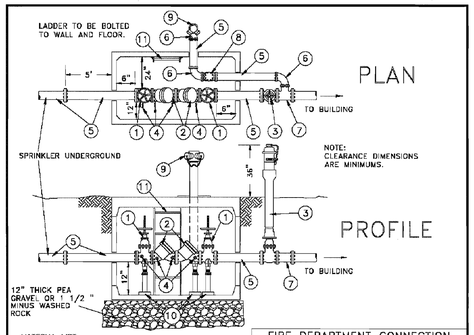
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
REDUCED PRESSURE BACKFLOW ASSEMBLY FOR 2" OR SMALLER (INDOOR APPLICATION)			
APPROVED City Engineer			DWG. NO. 6-4.41
DES. JC	DWN. WHO	CKD. RAS	DATE 8/27/09



GENERAL NOTES:
1. A MINIMUM FIVE FOOT RADIUS OF UNOBSTRUCTED WORKING AREA SHALL BE PROVIDED AROUND ALL HYDRANTS. THE UNOBSTRUCTED AREA SHALL INCLUDE BUT NOT BE LIMITED TO TREES, SHRUBS, PLANTS, VAULTS, FDC AND METERS.
2. HYDRANT SHALL BE WATEROUS PACER, M & H RELIANT STYLE 929, AMERICAN AVK, KENNEDY K-81, MUELLER CENTURION, OR CLOW MEDALLION.
3. GATE VALVES SHALL BE RESILIENT WEDGE NRS WITH O-RING SEALS. VALVE ENDS SHALL BE MECHANICAL JOINT BY ANSI FLANGES. VALVES SHALL CONFORM TO AWWA 509-80. VALVES SHALL BE MUELLER, M&H, KENNEDY, CLOW R/W OR WATEROUS SERIES 500.
4. REMOVE FACTORY CHAINS HOLDING CAPS.
5. WHEN DISTANCE BETWEEN HYDRANT AND VALVE EXCEED 20 FEET, FIELDLOK GASKETS SHALL BE ALLOWED.
6. INSTALLATION OF THE TYPE 2E TWO WAY BLUE REFLECTIVE HYDRANT MARKER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE TYPE 2E TWO WAY BLUE REFLECTIVE HYDRANT MARKER SHALL BE ALIGNED WITH THE OUTSIDE EDGE OF THE LANE MARKER OR 8" FROM THE CENTER OF THE RPM TO THE CENTER LINE OF THE ROADWAY. SEE DETAIL 4-27

DG6-8.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
FIRE HYDRANT ASSEMBLY			
APPROVED City Engineer			DWG. NO. 6-8
DES. WHO	DWN WHO	CKD RAS	DATE 8/27/09

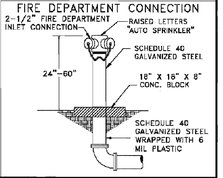


MATERIAL LIST:
1. OS&Y GATE VALVE W/HANDWHEEL FL X FL
2. OSHS APPROVED CHECK VALVE FL X FL
3. POST INDICATOR VALVE
4. TEST COCK – 4 REQUIRED
5. CLASS 52 DI WALL PIPE FL X FL
6. CLASS 52 DI 90° BEND FL X FL
7. CLASS 52 DI TEE FL X FL
8. SWING CHECK VALVE W/BALL DRIP ASSEMBLY
9. FIRE DEPARTMENT CONNECTION
10. VALVE STANDS
11. LADDER

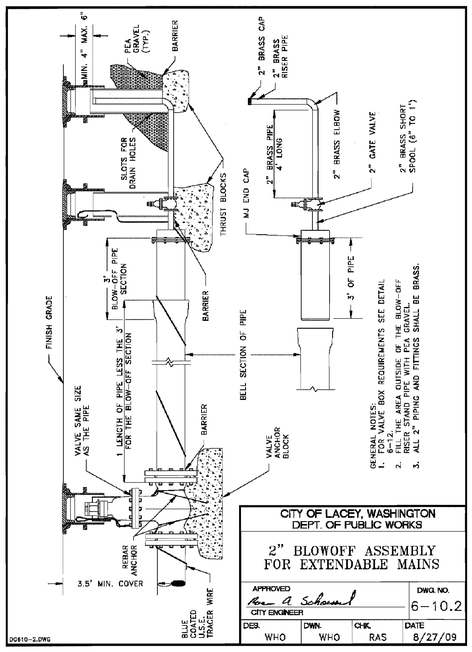
GENERAL NOTES:
1. THOROUGHLY FLUSH LINES PRIOR TO INSTALLING BACK FLOW ASSEMBLY.
2. PIPE FROM VAULT TO BUILDING SHALL BE CLASS 52 DI.
3. TAMPER SWITCHES SHALL BE INSTALLED ON 1 AND 3 CONNECTED TO BUILDING FIRE ALARM SYSTEM.
4. WHERE PIPING PASSES THROUGH CONCRETE WALL PROVIDE 2" CLEARANCE W/ WATERPROOF MASTIC OR FLEXIBLE SEALANT.
5. DIAMETER OF PIPE AND FITTINGS TO BE DETERMINED BY CERTIFIED SPRINKLER DESIGNER.
6. ALL PIPING SHALL BE A MINIMUM OF 4" DIAMETER AS PER NFPA13.
7. ALL VAULTS SHALL BE EQUIPPED WITH A DRAIN OR BE INSTALLED ABOVE GROUND.
8. ALL FIRE SPRINKLER LINES UP TO THE FIRST VALVE ON THE DCDA SHALL BE DISINFECTED, PRESSURE TESTED, FLUSHED AND TESTED FOR PURITY PER THE CITY OF LACEY STANDARDS.

DG6-5.1.DWG

FIRE DEPARTMENT CONNECTION



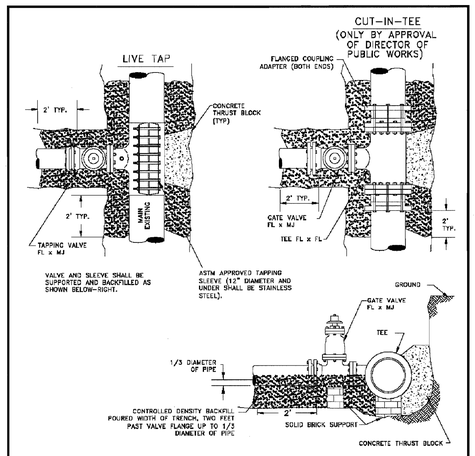
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
SINGLE SERVICE DOUBLE CHECK DETECTOR (DCDA) VALVE ASSEMBLY W/FDC			
APPROVED City Engineer			DWG. NO. 6-5.1
DES. WHO	DWN. WHO	CKD. RAS	DATE 8/27/09



GENERAL NOTES:
1. FOR VALVE BOX REQUIREMENTS SEE DETAIL 6-12.
2. FILL THE AREA OUTSIDE OF THE BLOW-OFF RISER STAND PIPE WITH PEA GRAVEL.
3. ALL 2" PIPING AND FITTINGS SHALL BE BRASS.

DG610-2.DWG

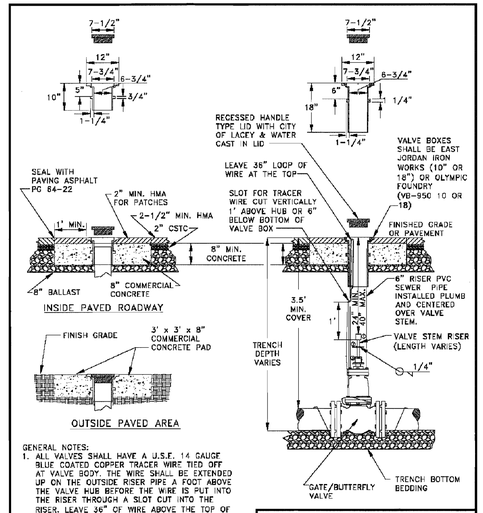
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
2" BLOWOFF ASSEMBLY FOR EXTENDABLE MAINS			
APPROVED City Engineer			DWG. NO. 6-10.2
DES. WHO	DWN. WHO	CHK. RAS	DATE 8/27/09



GENERAL NOTES:
1. 51 MIL PLASTIC OR CONSTRUCTION FABRIC SHALL BE WRAPPED AROUND PIPE AND FITTINGS BEFORE THRUST BLOCK OR CDF BACKFILL ARE POURED.
2. CONTROLLED DENSITY FILL SHALL CONSIST OF 1750# SAND, 1750# PEA GRAVEL, 230# WATER, 611# CEMENT & OUNCES WATER REDUCING AGENT PER 1.90# CEMENT.
3. MIX DESIGN SHALL BE SUBMITTED.
4. THE EXISTING MAIN, TAPPING SLEEVE AND VALVE SHALL BE SUPPORTED THROUGHOUT THE ENTIRE PROCESS WHEN TAPPING THE EXISTING WATER MAIN.

DG6-11.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
CONNECTION TO EXISTING MAIN			
APPROVED City Engineer			DWG. NO. 6-11
DES. LRW	DWN WHO	CKD RAS	DATE 8/27/09



GENERAL NOTES:
1. ALL VALVES SHALL HAVE A U.S.F. 14 GAUGE BLUE COATED COPPER TRACER WIRE TIED OFF AT VALVE BOX. THE WIRE SHALL BE EXTENDED UP ON THE OUTSIDE RISER PIPE A FOOT ABOVE THE VALVE HUB BEFORE THE WIRE IS PUT INTO THE RISER THROUGH A SLOT CUT INTO THE RISER. LEAVE 36" OF WIRE ABOVE THE TOP OF VALVE BOX.
2. ALL WELDS TO THE SHAFT SHALL BE FILLET WELD, AROUND THE ENTIRE PLATE PER #2 BELOW.

VALVE STEM EXTENSION LEGEND
① VALVE OPERATING NUT OR 1-7/8" X 1-7/8" X 2" HIGH GRADE STEEL WELDED TO GUIDE PLATE.
② 3/16" THICK X 5 1/8" DIA STEEL GUIDE PLATE WELDED TO RISER SHAFT.
③ 2"X2"X 3/16" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT. LENGTH AS REQUIRED.

DG6-12.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
STANDARD VALVE BOX INSTALLATION			
APPROVED City Engineer			DWG. NO. 6-12
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Chkd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

WATER MAIN DETAILS

FOR

SOUTHBAY VILLAGE

For:

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

K. BALDWIN — 23572 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 1/20/2012

Scale: Horizontal N/A; Vertical N/A

Designed ___ CP; Drawn ___ CP; Checked ___ AS; Approved DKB; Date 2/10/11

BERGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

Sheet C14 of 26

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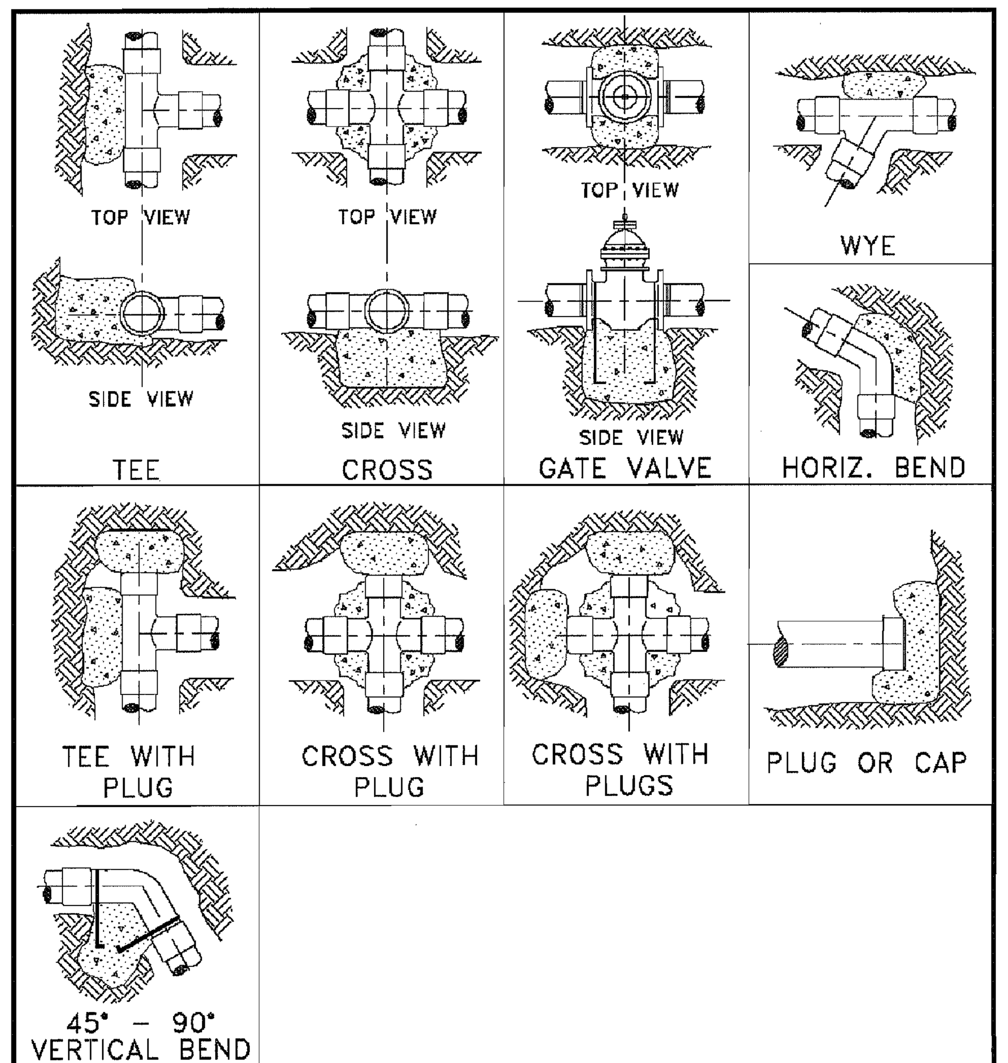
WATER MAIN DETAILS

FOR

SOUTHBAY VILLAGE



GENERAL NOTES:
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. PLASTIC BARRIER SHALL BE PLACED BETWEEN ALL THRUST BLOCKS AND FITTIINGS.
3. ANCHOR REBAR SHALL BE 5/8" MINIMUM DIAMETER

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

STANDARD BLOCKING DETAIL

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–14
DES. LRW | DWN. RLM | CKD. RAS | DATE 8/27/09

DG6–14.DWG

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22–1/2° BEND	11–1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

NOTES:
1. BLOCKING SHALL BE COMMERCIAL CONCRETE POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH PLASTIC OR SIMILAR MATERIAL.
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (S.F.):
   EXAMPLE : 12" – 90° BEND IN SAND AND GRAVEL
   32,000 LBS ÷ 3000 LB/S.F. = 10.7 S.F. OF AREA
3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.
4. BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS

FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

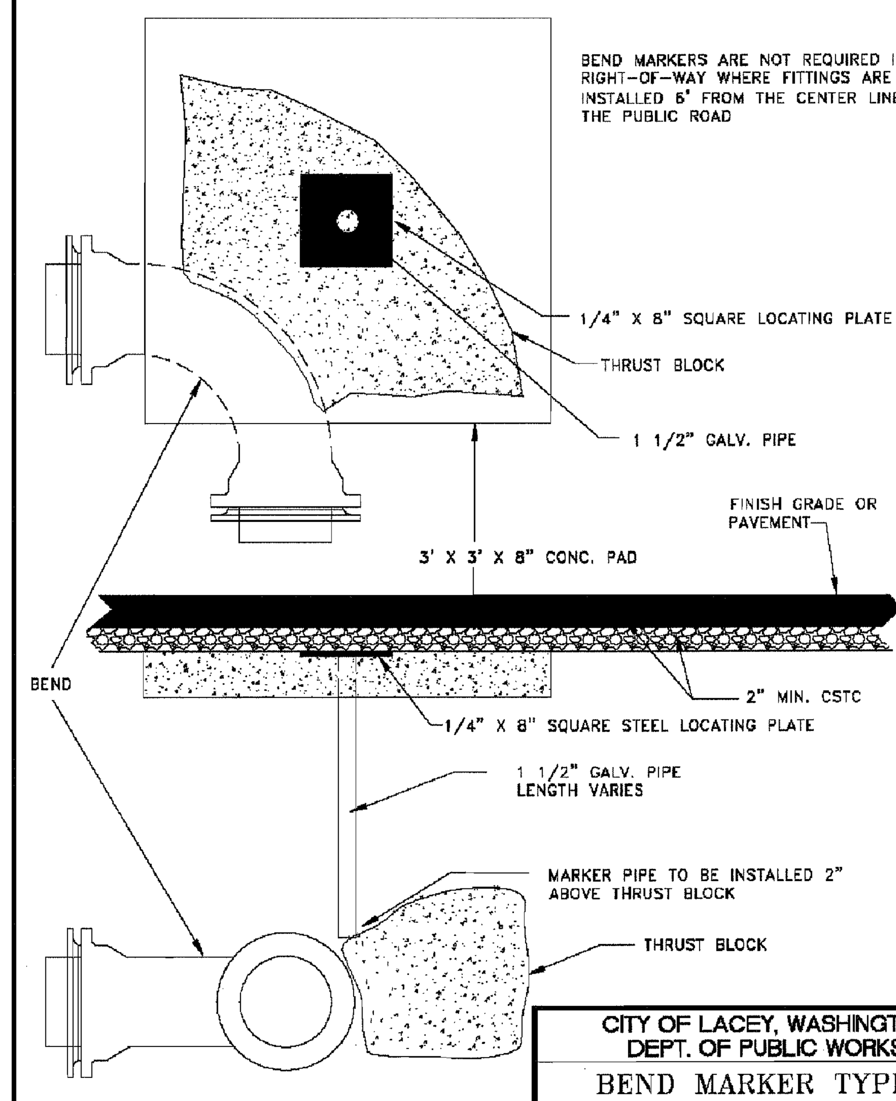
SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

THRUST LOADS

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–15
DES. LRW | DWN. RLM | CKD. RAS | DATE 8/27/09

DG6–15.DWG



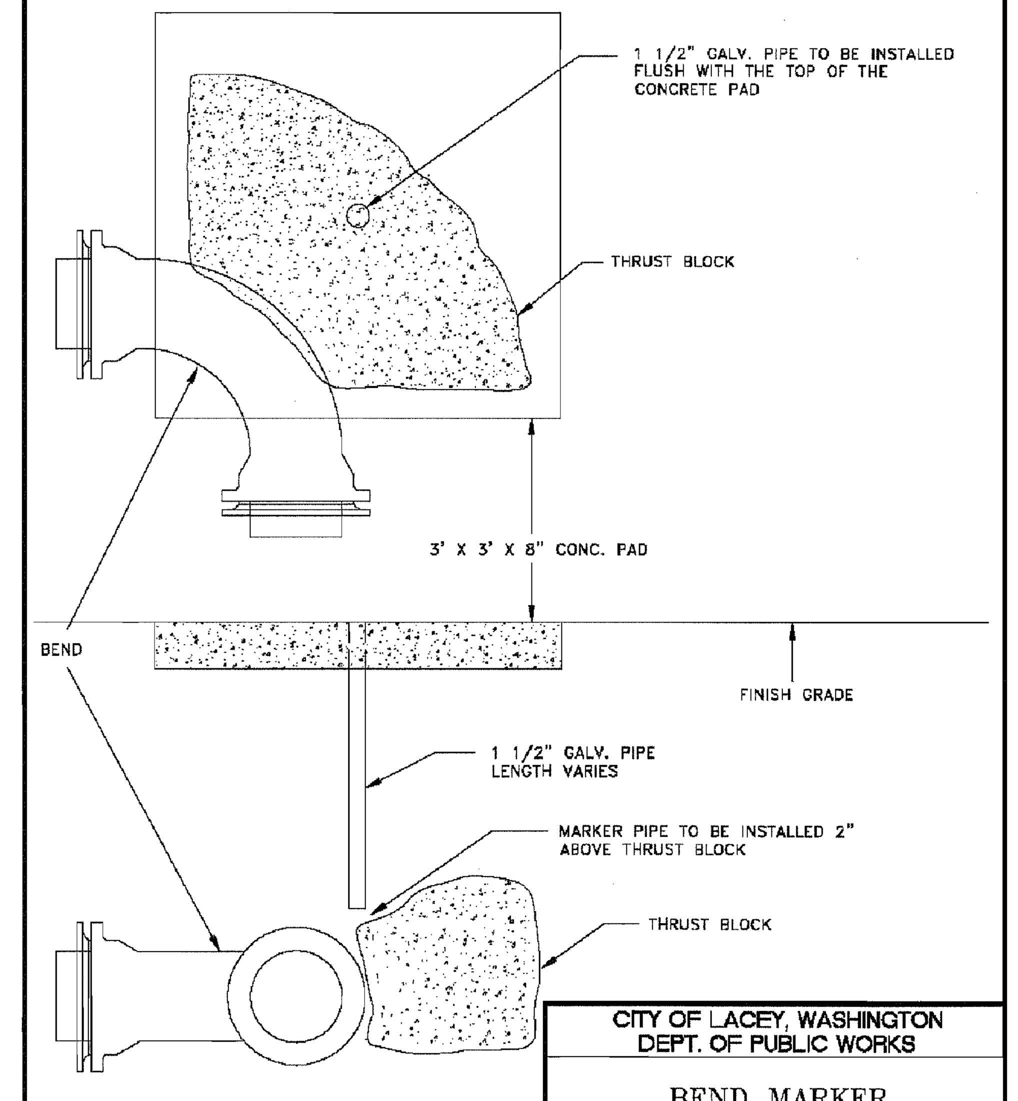
GENERAL NOTE:
1. TO BE INSTALLED IN EASEMENTS SUCH AS GRAVEL ACCESS ROADS, PAVED PRIVATE ROADS, PARKING LOTS AND PLAY GROUNDS.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

BEND MARKER TYPE I FOR GRAVEL ACCESS AND PAVED AREAS

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–19
DES. WHO | DWN. WHO | CKD. RAS | DATE 8/27/09

DG6–19.DWG



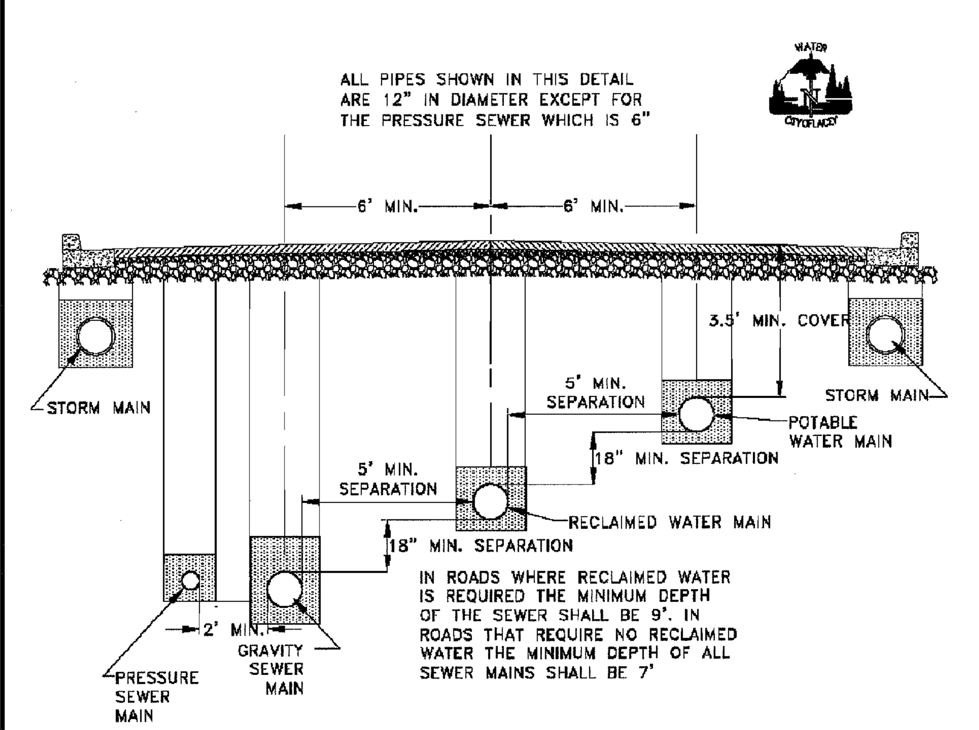
GENERAL NOTES:
1. TO BE INSTALLED IN EASEMENTS OTHER THAN PLAY GROUNDS, PARKING LOTS, GRAVEL ACCESS OR PRIVATE ROADS.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

BEND MARKER TYPE II

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–20
DES. WHO | DWN. WHO | CKD. RAS | DATE 8/27/09

DG6–20.DWG



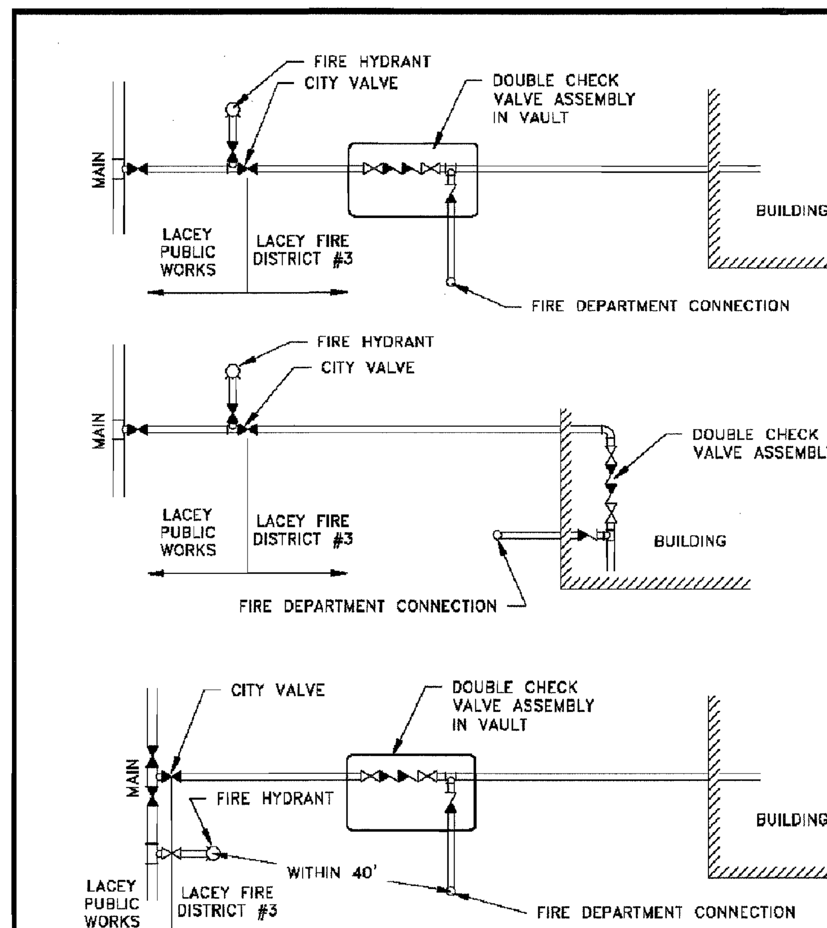
GENERAL NOTES:
1. THE POTABLE WATER MAIN SHALL BE INSTALLED ON THE NORTH AND EAST SIDE OF THE ROADWAY (6' OFF CENTERLINE).
2. THE SEWER MAIN SHALL BE INSTALLED ON THE SOUTH AND WEST SIDES OF THE ROADWAY (6' OFF CENTERLINE). WHEN THE INSTALLATION REQUIRES BOTH GRAVITY AND PRESSURE SEWER MAINS THE PRESSURE MAIN SHALL BE INSTALLED FURTHER SOUTH OR WEST OF THE GRAVITY SEWER MAIN.
3. THE RECLAIMED WATER MAIN SHALL BE INSTALLED IN THE CENTER OR TO THE SOUTH OR WEST THE CENTER LINE OF THE ROADWAY OR AS DIRECTED BY THE CITY.
4. ALL OF THE ABOVE PIPING SHALL BE INSTALLED IN ORDER OF DESCENDING QUALITY WITH A MINIMUM OF 18" SEPARATION FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE. NO DEVIATIONS FROM THIS REQUIREMENT SHALL BE ALLOWED.
5. THE HORIZONTAL SEPARATION WHEN ATTAINABLE SHALL BE 10' FROM THE SPRING LINE OF ONE PIPE TO THE SPRING LINE OF THE NEXT PIPE. WHEN THE 10' SEPARATION IS NOT ATTAINABLE, APPROVAL FROM THE CITY IS REQUIRED TO REDUCE THE SEPARATION REQUIREMENTS TO 5' HORIZONTAL AND 18" VERTICAL.
6. THE DESIGN REQUIREMENT ON THIS SHEET SHALL APPLY TO ALL SITUATIONS WITHIN THE RIGHT–OF–WAY OR EASEMENTS, EXISTING OR PROPOSED.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

WATER, RECLAIMED WATER, GRAVITY & PRESSURE SEWER PIPE ZONES IN ORDER OF DESCENDING QUALITY

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–24
DES WHO | DWN WHO | CKD RAS | DATE 8/27/09

DG6–24.DWG



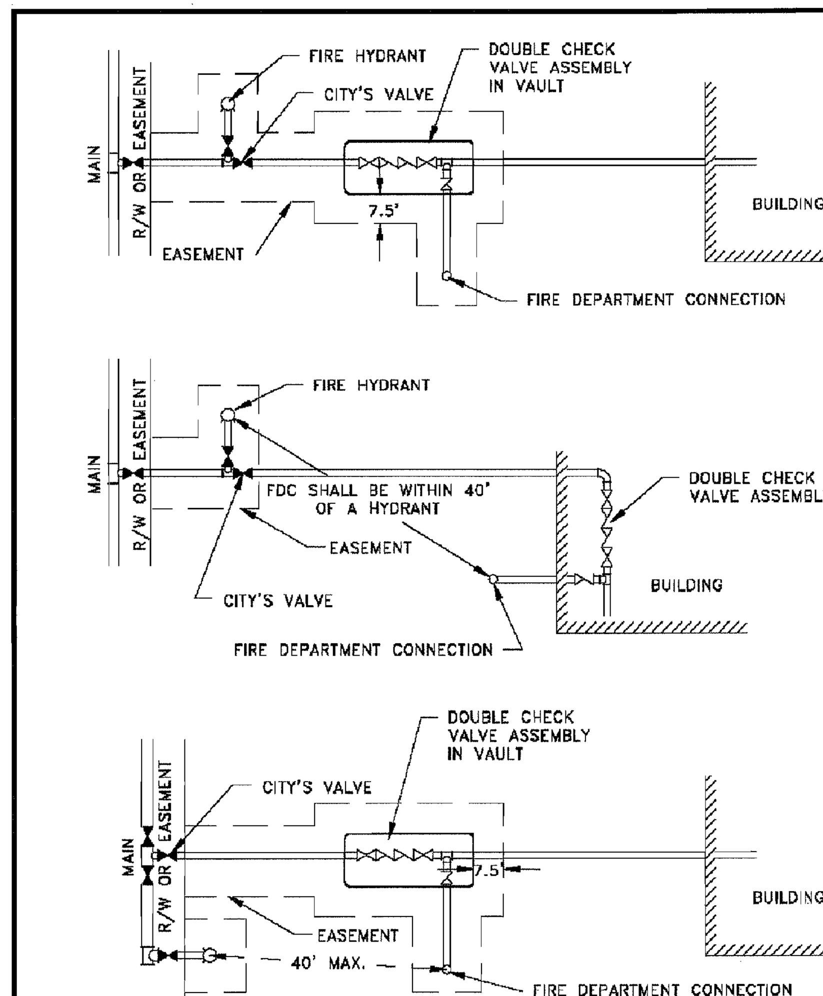
GENERAL NOTES:
1. THE CITY OF LACEY INSPECTOR SHALL WITNESS THE TESTING OF THE WATER MAINS AND HYDRANTS TO THE CITY'S VALVE. THE REQUIREMENT FOR DISINFECTING AND PURITY SHALL BE PER SECTION 6.200. NOTIFY THE CITY INSPECTOR FOR ALL TESTING THAT IS REQUIRED.
2. ALL FIRE SPRINKLER MAINS SHALL BE DUCTILE IRON CLASS 52.
3. SEE CHAPTER 6.110 FOR MORE INFORMATION ON BACKFLOW PREVENTION.
4. ALL HYDRANTS SHALL BE INSTALLED ON THE UP STREAM SIDE OF THE FIRE LINE CONNECTION.
5. THERE SHALL BE 3 VALVES ON A TEE AND 4 VALVES ON A CROSS WHEN THE CITY'S WATER MAIN SERVICES A FIRE LINE OR AS DEEMED NECESSARY BY THE FIRE MARSHAL.
6. THE FDC SHALL BE LOCATED WITHIN 40' OF A HYDRANT.
7. ALL FIRE SPRINKLER MAINS SHALL BE TESTED AND PURIFIED TO THE 1ST VALVE AT THE DCDA.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

FIRE SPRINKLER UNDERGROUND TESTING LIMITS

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–25.1
DES LRW | DWN WHO | CKD RAS | DATE 8/27/09

DG6–25.1.DWG



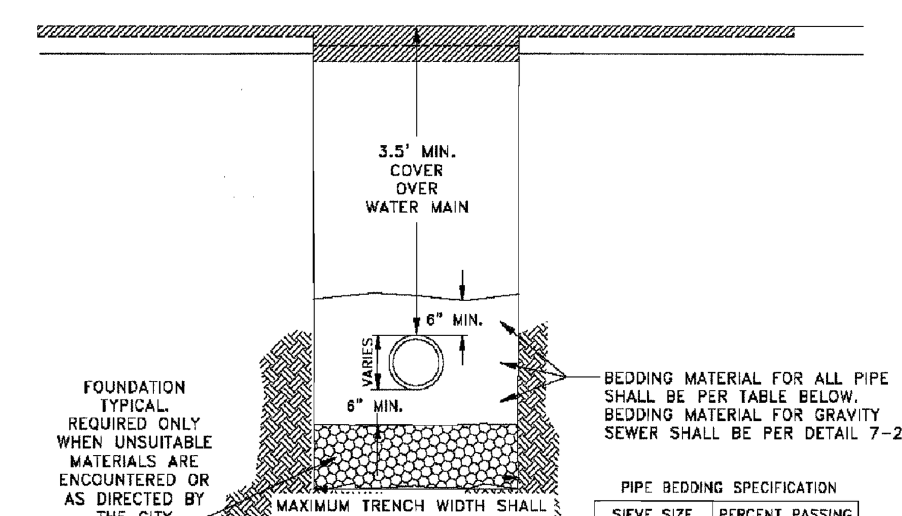
GENERAL NOTES:
1. ALL PIPE EASEMENTS SHALL BE A MINIMUM 15 FEET WIDE WITH THE PIPE CENTERED IN THE EASEMENT.
2. WHEN THE DCVA IS IN A VAULT OUTSIDE THE BUILDING, THE CITY EASEMENT SHALL ENCOMPASS THE VAULT 7.5 FEET OUTSIDE THE PERIMETER OF THE VAULT.
3. WHEN THE DCVA IS LOCATED WITHIN THE BUILDING, THE CITY EASEMENT SHALL END AT THE CITY VALVE.
4. THE FDC SHALL BE LOCATED WITHIN 40' OF A HYDRANT.
5. HYDRANTS SHALL BE PLACED ON THE UP STREAM SIDE OF THE FIRE CONNECTION.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

FIRE SPRINKLER UNDERGROUND EASEMENT LIMITS

APPROVED [signature] CITY ENGINEER | DWG. NO. 6–25.2
DES LRW | DWN WHO | CKD RAS | DATE 8/27/09

DG6–25.2.DWG



PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70–100
U.S. NO.4	55–100
U.S. NO. 10	35–95
U.S. NO. 20	20–80
U.S. NO. 40	10–55
U.S. NO. 100	0–10
U.S. NO. 200	0–03

GENERAL NOTES:
1. ALL MATERIALS SHALL BE COMPACTED IN 6–INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

PIPE ZONE BEDDING FOR WATER MAINS & SERVICES

APPROVED CITY ENGINEER | DWG. NO. 6–26
DES WHO | DWN WHO | CKD RAS | DATE

DG6–26.DWG

FOR THE CITY OF LACEY

BY: ________________ DATE: ________
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
WATER MAIN DETAILS FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI, STATE OF WASHINGTON, 25672, REGISTERED PROFESSIONAL ENGINEER 1/20/2012

Scale: Horizontal N/A Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C15 of 26

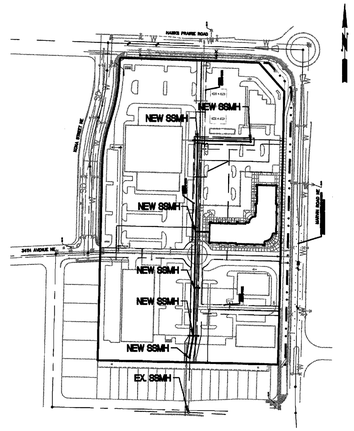
File:P:\15000s\15426\preliminary\15426-d6.dwg Date/Time:1/20/2012 2:24 PM Scale:1:1_XREF_XREF MYORK Xref: , z15426-pb.dwg, dan-b.dwg

SANITARY SEWER PLAN
FOR
SOUTHBAY VILLAGE

1"=40'
0 20 40 80

KONA STREET NE
68' EX. R-O-W
7' EXISTING PLANTER
6' EXISTING SIDEWALK
8' TYPE II LS
6' CEDAR BOARD FENCE
CONC. RETAINING WALL
55 LF 8" PVC SEWER IE = 231.53 (DESIGN)
EX. SSMH RIM = 238.05 IE = 231.10
EX. CB RIM = 237.21 IE = 233.21
EX. PH
LANE DIVIDER CURB
EX. CB RIM = 238.06 IE = 229.31
8" PVC WATER
EX. SSMH RIM = 240.55 IE MCE = 232.14
EX. CB RIM = 241.69 IE = 232.84
WC RAMP
SIGN
EX. CB RIM = 237.12 IE(W) = 234.05
EX. CB RIM = 241.91 IE = 238.86
EX. SSMH RIM = 246.63 IE MCE = 232
FUTURE FIRE HYDRANT
PROPOSED 8" WATER
SERVICE/ DELIVERY
TREE TRACT AREA-37,355 SF
ALLEY WAY
FUTURE BUILDING A COMM/RETAIL 18,000 SF PAD FF=240.0
CONTRACTOR TO FIELD LOCATE VERTICAL AND HORIZONTAL LOCATION OF EX. SANITARY SERER STUB PRIOR TO INSTALLATION OF SSMH#1. EX. SANITARY SEWER MAIN SHALL BE EXTENDED AS NEEDED TO MATCH PROPOSED MH LOCATION AT TOP OF SLOPE
EX. CB (PER RECORD) RIM = 227.16 IE = 220.81 (12" E) IE = 220.84 (12" W) IE = 220.51 (24" N) IE = 220.03 (24" S)
EX. 150 LF 8" PVC SS @ 0.67% S1°18'12.00"W
EX. SSMH STA: 9+94.13, 299.66' RT RIM = 230.15 IE = 217.81 (8" N) IE = 217.70 (8" E) IE = 217.76 (8" W)
EX. CB (PER RECORD) RIM = 225.30 IE = 221.68 IE = 222.16
EX. CB (PER RECORD) RIM = 226.46 IE = 222.37 IE = 222.81
15 LF 6" SS @ 3.50% S88°41'48.00"E CAP FOR FUTURE CONNECTION
SSMH #2 STA: 7+96.46, 288.95' RT RIM = 237.74 IE = 227.29 (8" N) IE = 227.46 (6" W) IE = 227.46 (6" E) IE = 227.19 (8" S)
SSMH #3 STA: 6+63.34, 288.95' RT RIM = 243.26 IE = 230.05 (8" N) IE = 230.22 (6" E) IE = 229.95 (8" S)
SSMH #4 STA: 5+08.84, 288.95' RT RIM = 246.57 IE = 233.32 (8" N) IE = 233.49 (6" E) IE = 233.22 (8" S)
SSMH #5 STA: 2+58.34, 288.95' RT RIM = 251.13 IE = 243.81 (8" E) IE = 243.98 (6" W) IE = 243.71 (8" S)
SSMH #6 STA: 9+50.46, 297.50' RT RIM = 233.23 IE = 218.99 (8" N) IE = 218.89 (8" S)
133 LF 8" PVC SS @ 2.00% N1°18'12.00"E
155 LF 8" PVC SS @ 2.05% N1°18'12.00"E
250 LF 8" PVC SS @ 4.15% N1°18'12.00"E
36 LF 6" PVC SS @ 16.50% S88°41'48.00"E
PHASE 1 LIMITS OF WORK
20' UTILITY EASEMENT
15 LF 6" SS @ 3.20% N88°41'48.00"W CAP FOR FUTURE CONNECTION
PROPOSED 12" WATER
PROPOSED FIRE HYDRANT
FUTURE BUILDING B RETAIL 20,800 SF PAD FF=252.0
FUTURE BUILDING BB RETAIL 6,000 SF PAD FF=252.0
FUTURE BUILDING BBB RETAIL 6,000 SF PAD FF=252.0
15 LF 6" SS @ 2.00% S88°41'48.00"E CAP FOR FUTURE CONNECTION
NEW 30' WIDE CONC. DRIVEWAY PER CITY DTL. 4-7
FUTURE BUILDING C COFFEESHOP + COMM/RETAIL 5,375 SF PAD FF=242.0
FUTURE BUILDING D COMM/RETAIL 6,600 SF PAD FF=241.0
BUILDING E COMM/RETAIL 15,700 SF PAD FF=249.5
SSGO #4 STA: 5+08.84, 252.50' RT RIM = 247.50 IE = 239.51 (6" E) IE = 239.51 (6" W)
148 LF 8" PVC SS @ 1.00% S88°41'48.00"E
FUTURE BUILDING F GAS STATION W/CAR WASH 5,719 SF PAD FF=256.5
SSMH #6 STA: 2+58.34, 141.00' RT RIM = 254.07 IE = 245.46 (6" N) IE = 245.29 (8" W)
1' BEHIND SIDEWALK
6.5' BEHIND SIDEWALK
PHASE 1 LIMITS OF WORK
EX. 40' R-O-W
PROPOSED 50' R-O-W
PROPOSED 20' R-O-W DEDICATION
8' PROPOSED SIDEWALK
18' PROPOSED PLANTER
EX. STREETLIGHT
EX. 8" WATER
EX. 12" WATER
EX. CB TYPE 2 (PER RECORD) RIM = 232.50 IE = 226.51 (12" S)
EX. CB (PER RECORD) RIM = 238.32 IE = 222.42
EX. CB (PER RECORD) RIM = 240.70 IE = 235.32
EX. CB (PER RECORD) RIM = 250.74 IE = 245.61
EX. CB (PER RECORD) RIM = 259.80
NEW 30' WIDE CONC. DRIVEWAY PER CITY DTL. 4-7
NOTE: SITE SEWER STATIONING AND OFFSETS ARE FROM MARVIN ROAD CENTERLINE
MARVIN ROAD NE
HAWKS PRAIRIE ROAD
TRAFFIC CIRCLE
ISLAND
GUY ANCHOR
FIBER OPTIC TEL MANHOLE
EXISTING TARGET ACCESS
SLOPE EASEMENT PER INST. 2469518
12" DIP
BO ASSEMBLY
ASPHALT WALK
SIGN
10+00 9+00 8+00 7+00 6+00 5+00 4+00 3+00 2+00 1+00 0+00 50+00 51+00

SEWER SYSTEM MAP



1"=200'

SANITARY SEWER NOTE:

ALL MANHOLE LIDS AND FRAMES SHALL BE INSTALLED ABOVE THE OUTFALL PIPE AND CHANNEL.

SANITARY SEWER PIPE NOTE:

ALL PIPE SHALL BE PVC ASTM D 3034 SDR 35, AND GREEN, BLACK, OR WHITE IN COLOR.

SANITARY SEWER CONNECTION NOTE:

POTHOLE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION TO VERIFY THAT MINIMUM SLOPES CAN BE MAINTAINED. NOTIFY ENGINEER OF ANY CONFLICTS. COORDINATE WITH THE CITY OF LACEY'S CONSTRUCTION INSPECTOR PRIOR TO POTHOLING AND PRIOR TO CONSTRUCTION.

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Revision	Date	By	Ckd.	Appr.

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

SANITARY SEWER PLAN
FOR
SOUTHBAY VILLAGE

For:

DENNIS K. BARGHAUSEN — WASHINGTON — 15426 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/2/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS, INC.

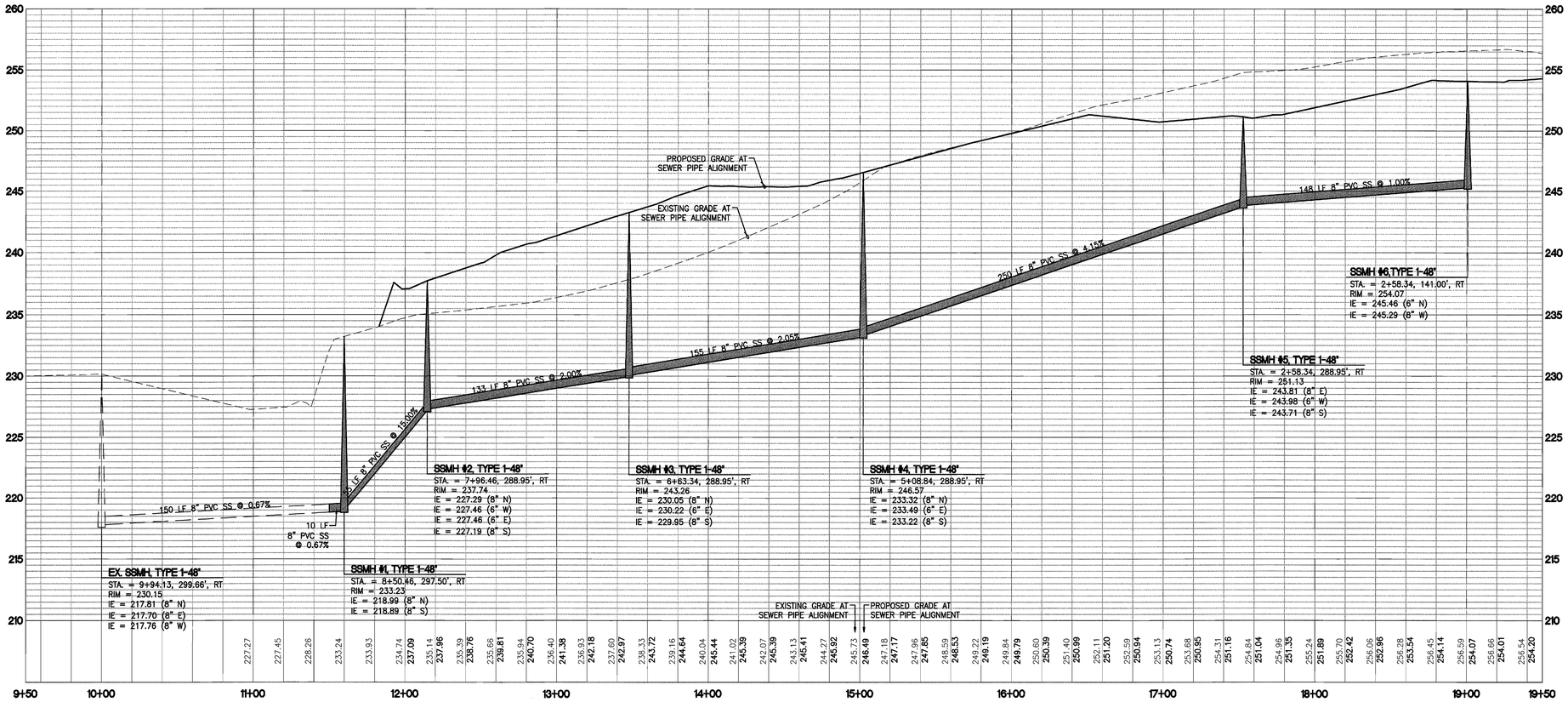
Job Number 15426

Sheet C16 of 26

SANITARY SEWER PROFILE

FOR

SOUTHBAY VILLAGE



SANITARY SEWER PROFILE

1"=40' H 1"=5' V

CALL BEFORE YOU DIG

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BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

SANITARY SEWER PROFILE FOR SOUTHBAY VILLAGE

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

For:

K. BARGHAUSEN — STATE OF WASHINGTON — 15672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=40' Vertical N/A

Designed DKB Drawn CP Checked AS Approved DKB Date 12/2/11

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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS, INC.

Job Number 15426

Sheet C17 of 26

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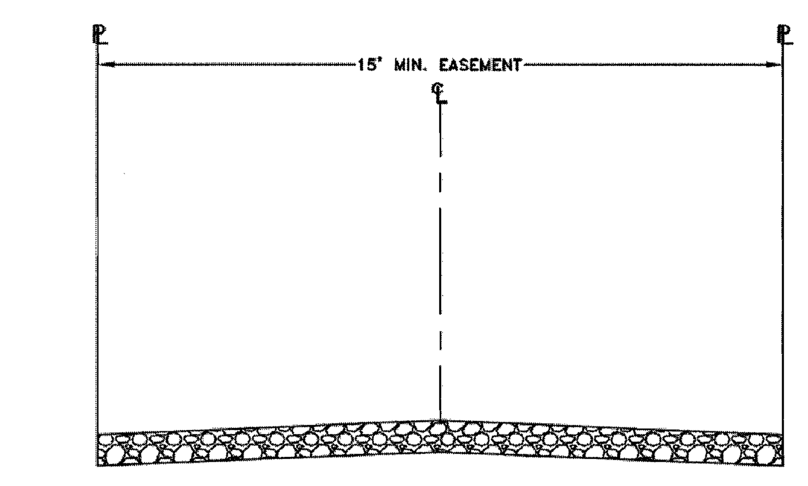
SANITARY SEWER NOTES AND DETAILS
FOR
SOUTHBAY VILLAGE

GENERAL NOTES (SANITARY SEWER MAIN INSTALLATION):

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF LACEY STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (WSDOT/APWA). IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. ALL SAFETY STANDARDS AND REQUIREMENTS SHALL BE COMPLIED WITH AS SET FORTH BY OSHA, WISHA AND WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF LACEY SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
4. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
5. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF LACEY CONSTRUCTION INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
6. THE CITY OF LACEY CONSTRUCTION INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF A TAP CONNECTION TO AN EXISTING MAIN. THE INSPECTOR SHALL BE PRESENT AT THE TIME OF THE TAP.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
8. GRAVITY SEWER MAIN SHALL BE PVC, ASTM D 3034 SDR 35 OR ASTM F 789 WITH JOINTS AND RUBBER GASKETS CONFORMING TO ASTM D 3212 AND ASTM F 477.
9. PRE-CAST MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM C478. MANHOLES SHALL BE TYPE 1-48 INCH MANHOLE UNLESS OTHERWISE SPECIFIED ON THE PLANS. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C 443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES SHALL BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE. (SEE NOTE 1.)
10. MANHOLE FRAMES AND COVERS SHALL BE OLYMPIC FOUNDRY OR EAST JORDAN IRON WORKS WSDOT STYLE DUCTILE IRON CASTING MARKED "SEWER" CONFORMING TO THE REQUIREMENTS OF ASTM A-30, CLASS 25 MANHOLE RINGS AND COVERS SHALL BE MACHINE-FINISHED OR GROUND-ON SEATING SURFACES SO AS TO ASSURE A NON-ROCKING, SELF SEATING (EASILY REMOVED AND REPLACED WITHOUT THE USE OF A SLEDGE HAMMER) FIT IN ANY POSITION AND BE INTERCHANGEABLE IN OTHER STANDARD MANHOLE FRAMES. LOCK-TYPE COVERS SHALL BE REQUIRED IN ALL MULTI-FAMILY COMPLEXES, ON SCHOOL GROUNDS, ON THE MANHOLES CONTAINING ODOR CONTROL DEVICES OR AS DETERMINED BY THE CITY. THE MANHOLE OPENING SHALL BE CENTERED OVER THE OUTLET CHANNEL REGARDLESS OF THE LOCATION OF THE LADDER RUNGS.
11. SIDE SEWER SERVICES SHALL BE PVC, ASTM D 3034 SDR 35 WITH FLEXIBLE GASKET JOINTS. SIDE SEWER CONNECTIONS SHALL BE MADE BY A TAP TO AN EXISTING MAIN OR A WYE BRANCH FROM A NEW MAIN CONNECTED ABOVE THE SPRING LINE OF THE PIPE. WHEN A TAP IS USED TO CONNECT TO AN EXISTING SEWER MAIN, TELEVISING FROM THE CLOSEST MAIN TO 15 FEED PAST THE TAP IS REQUIRED.
12. ALL SEWER MAINS SHALL BE FIELD STAKED FOR GRADES AND ALIGNMENT IN ACCORDANCE WITH SECTION 7A.030 OF THE DEVELOPMENT GUIDELINES.
13. ALL PLASTIC PIPE AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS TRACER TAPE 12 INCHES TO 18 INCHES UNDER THE PROPOSED FINISHED SUB GRADE. THE MARKER SHALL BE PLASTIC NON-BIODEGRADEABLE, METAL CORE OR BACKING, MARKED "SEWER" WHICH CAN BE DETECTED BY A STANDARD METAL DETECTOR. TAPE SHALL BE TERRA TAPE "D" OR APPROVED EQUAL. THE TAPE AND WIRE SHALL BE FURNISHED BY THE CONTRACTOR.
14. ALL SIDE SEWER LOCATIONS SHALL BE MARKED ON THE FACE OF THE CURB WITH AN EMBOSSED "S" 3 INCH HIGH AND ¼ INCH INTO CONCRETE.
15. BEDDING OF THE SEWER MAIN SHALL BE A MINIMUM 6 INCHES OF ⅜ INCH MINUS PEA GRAVEL UNDER THE PIPE AND A MINIMUM OF 12 INCHES OF ⅜ INCH MINUS PEA GRAVEL OVER THE PIPE. WHEN WORKING IN SENSITIVE SOILS A BARRIER ABOVE THE PEA GRAVEL MAY BE REQUIRED TO PREVENT THE FINE SOILS FROM MIGRATING INTO THE PEA GRAVEL. COMPACTION OF THE BACKFILL MATERIAL SHALL BE REQUIRED IN ACCORDANCE WITH THE ABOVE MENTIONED SPECIFICATION (SEE NOTE #1). THE APPLICABLE CHAPTER 4-8 TRENCH RESTORATION DETAILS AND DETAIL 7-20 SHALL BE USED.
16. A 3' x 3' SQUARE x 8 INCH THICK CONCRETE PAD WITH #4 REBAR SHALL BE INSTALLED AROUND ALL CLEAN OUTS THAT ARE NOT IN A PAVEMENT AREA.
17. TEMPORARY STREET PATCHING SHALL BE ALLOWED FOR AS APPROVED BY THE CITY ENGINEER. TEMPORARY STREET PATCHING SHALL BE PROVIDED BY PLACEMENT AND COMPACTION OF 1 INCH MAXIMUM ASPHALT CONCRETE COLD MIX. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AS REQUIRED.
18. EROSION CONTROL MEASURES SHALL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO PREVENT INFILTRATION OF EXISTING AND PROPOSED STORM DRAINAGE FACILITIES AND ROADWAYS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS REQUIRED. PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
20. A COPY OF THE APPROVED PLANS SHALL BE ON CONSTRUCTION SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
21. ANY CHANGES TO THE DESIGN SHALL FIRST BE REVIEW AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF LACEY.
22. ALL LINES SHALL BE HIGH VELOCITY CLEANED AND PRESSURE TESTED PRIOR TO PAVING IN CONFORMANCE WITH THE ABOVE REFERENCED SPECIFICATIONS, SEE NOTE 1. HYDRANT FLUSHING OF LINES IS NOT AN ACCEPTABLE CLEANING METHOD. TESTING OF THE SANITARY SEWER MAIN SHALL INCLUDE VIDEOTAPING OF THE MAIN BY THE CONTRACTOR. IMMEDIATELY PRIOR TO VIDEOTAPING, ENOUGH WATER SHALL BE RUN DOWN THE LINE SO IT COMES OUT THE LOWER MANHOLE. A COPY OF THE VIDEO TAPE SHALL BE SUBMITTED TO THE CITY OF LACEY. ACCEPTANCE OF THE LINE WILL BE MADE AFTER THE TAPE HAS BEEN REVIEWED AND APPROVED BY THE INSPECTOR. A WATER OR VACUUM TEST OF ALL MANHOLES IN ACCORDANCE WITH LACEY STANDARD IS ALSO REQUIRED. TESTING SHALL TAKE PLACE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPACTION OF THE ROADWAY SUB GRADE IS COMPLETED. AFTER THE PAVING AND RAISING OF MANHOLES ARE COMPLETE, THE DEVELOPER SHALL CLEAN AND VIDEOTAPE THE SEWER CONVEYANCE SYSTEM AGAIN AT THE DEVELOPERS EXPENSE. THE METHOD OF CLEANING SHALL BE HIGH VELOCITY WATER PRESSURE CLEANING. ALL ROCKS AND DEBRIS SHALL BE REMOVED AND BE DISPOSED OF AT THE DEVELOPER'S EXPENSE.
23. CONTRACTORS SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS IN NEW OR EXISTING MANHOLES AND MAINS ASSOCIATED WITH THE PROJECT AFTER THE NEW LINES ARE CLEANED AS OUTLINED ABOVE. THE SEWER SYSTEM SHALL BE TELEVISED TO ASSURE THE SYSTEM IS CLEAN.
24. PRIOR TO BACKFILL ALL MAINS AND APPURTENANCES SHALL BE INSPECTED AND APPROVED BY THE CITY OF LACEY CONSTRUCTION INSPECTOR. APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FOR CORRECTION OF ANY DEFICIENCIES AND/OR FAILURES AS DETERMINED BY SUBSEQUENT TESTING AND INSPECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF LACEY FOR THE REQUIRED INSPECTIONS.
25. WHEN USING STEEL PLATES OVER THE TRENCH, "STEEL PLATES AHEAD" SIGNS SHALL BE REQUIRED.
26. A MANDREL TEST IN ACCORDANCE WITH SECTION 7-13.3 (2) G OF THE WSDOT/APWA STANDARD SPECIFICATIONS SHALL BE REQUIRED AS DIRECTED BY THE CITY.
27. ENCASEMENT MATERIAL SHALL INCLUDE ¼ INCH STEEL, DUCTILE IRON AND IN SPECIAL OR UNUSUAL CASES C-900 CLASS 200 PVC PIPE MAY BE ALLOWED IF APPROVED BY THE DIRECTOR OF PUBLIC WORKS IN ADVANCE. CONCRETE ENCASEMENT SHALL NOT BE ALLOWED.
28. MANHOLE FRAMES AND LOGO LIDS SHALL BE DUCTILE IRON MARKED "SEWER" AND "CITY OF LACEY" CONFORMING TO THE REQUIREMENTS OF ASTM-A-30, CLASS 25, AND SHALL BE FREE OF POROSITY, SHRINK CAVITIES, COLD SHUTS OR CRACKS, OR ANY SURFACE DEFECTS WHICH WOULD IMPAIR SERVICEABILITY. MANHOLE FRAME AND COVER UNITS SHALL BE FITTED TO ASSURE RATTLING NOISE FROM TRAFFIC IS PREVENTED. ALL CASTING SHALL BE COATED WITH A BITUMINOUS COATING PRIOR TO DELIVERY TO THE JOB SITE



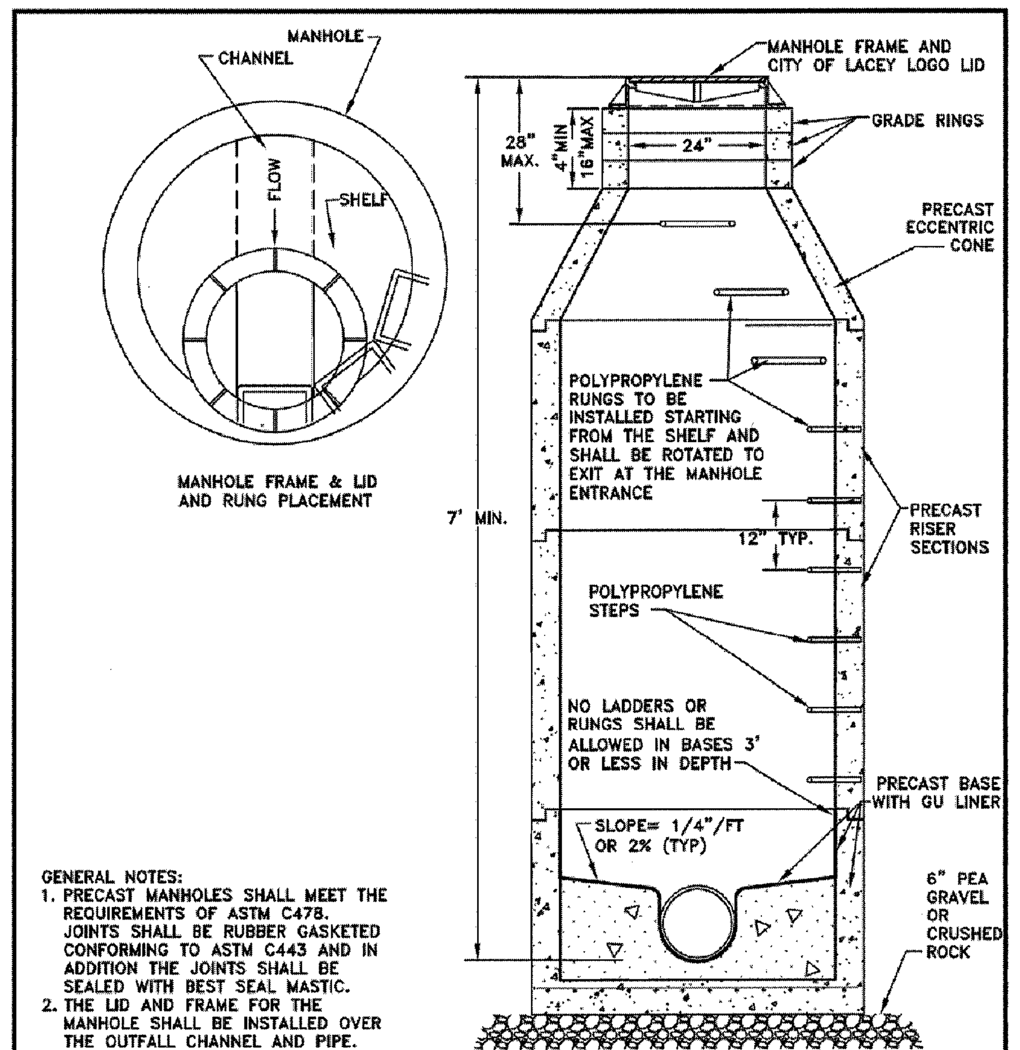
GENERAL NOTES:
1. ACCESS ROADS SHALL BE INSTALLED THE FULL WIDTH OF THE EASEMENT. ADDITIONAL EASEMENT MAYBE REQUIRED FOR TURNING RADIUS, DRAINAGE REQUIREMENTS OR AS DIRECTED BY THE CITY.
2. A "NO PARKING" SIGN SHALL BE MANUFACTURED AND INSTALLED BY THE CITY AT THE OWNERS EXPENSE. THE SIGN SHALL BE INCLUDED WITH THE SIGN REQUEST.
3. ACCESS TO THE EASEMENT SHALL BE MADE WITH A DRIVEWAY CUT.
4. ACCESS ROAD CROSS SLOPES SHALL BE DESIGNED BY THE ENGINEER AND APPROVED BY THE CITY.
5. THE ACCESS ROAD SHALL HAVE A GATE INSTALLED TO LIMIT ENTRANCE TO THE SITE. A PARKING AREA IN FRONT OF THE GATE SHALL BE PROVIDED FOR CITY VEHICLES.
6. THE ACCESS ROAD STRUCTURE REQUIREMENTS SHALL BE PER DETAIL 4-6.1.
7. PAVING OF THE ACCESS ROAD SHALL BE AS DIRECTED BY THE CITY.
8. AN ACCESS ROAD SHALL BE INSTALLED IN AN EASEMENT WHENEVER MANHOLES OR CLEAN OUTS ARE PROPOSED IN THAT EASEMENT.

DG7-0.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

ACCESS ROAD

APPROVED			DWG. NO.
CITY ENGINEER			7-0
DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09



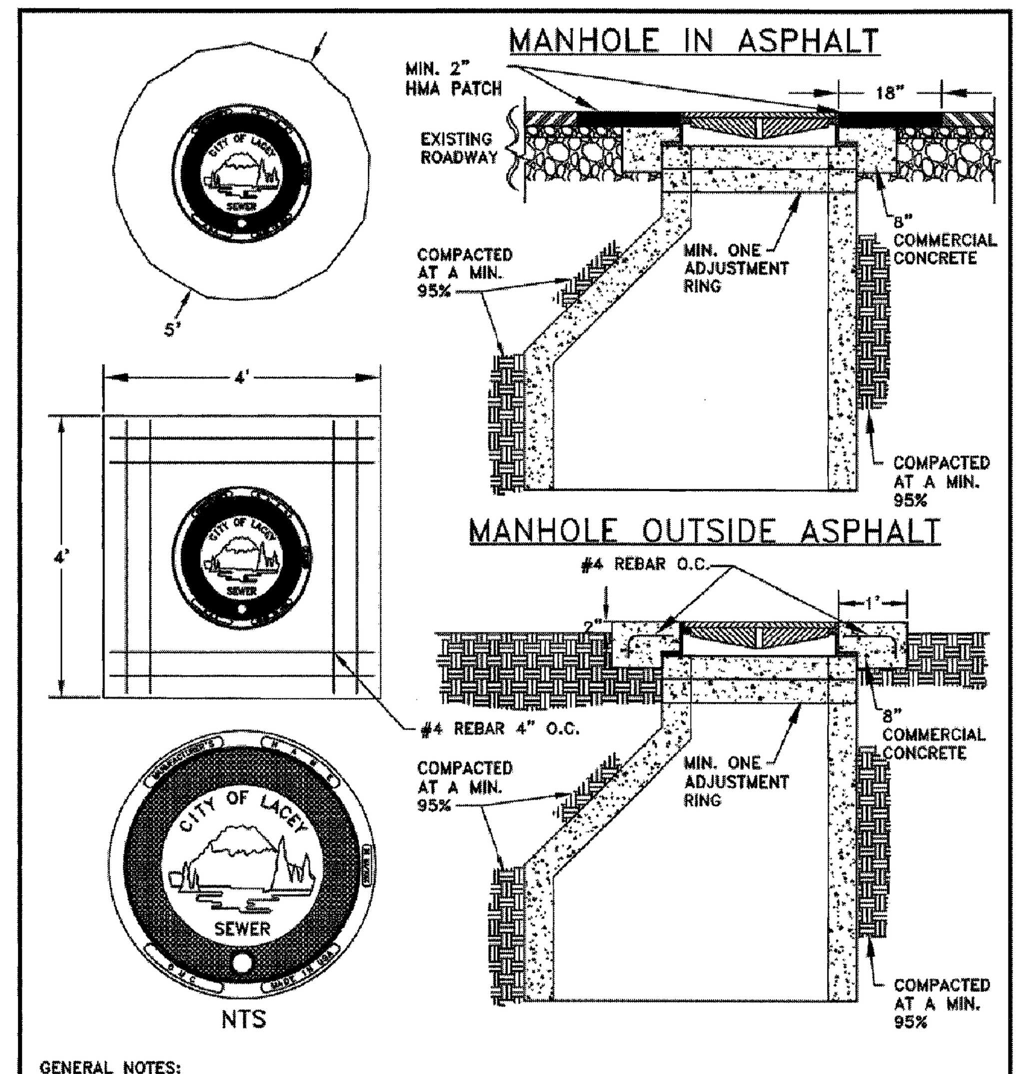
GENERAL NOTES:
1. PRECAST MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM C478. JOINTS SHALL BE RUBBER GASKETED CONFORMING TO ASTM C443 AND IN ADDITION THE JOINTS SHALL BE SEALED WITH BEST SEAL MASTIC.
2. THE LID AND FRAME FOR THE MANHOLE SHALL BE INSTALLED OVER THE OUTFALL CHANNEL AND PIPE.
3. STEPS IN THE MANHOLE SHALL HAVE 6" MINIMUM CLEARANCE.
4. GU LINER BASES WITH THE LINER EXTENDED TO THE FIRST JOINT SHALL BE REQUIRED FOR ALL MANHOLES.
5. CONNECTION TO EXISTING MANHOLES SHALL BE MADE BY KOR-N-SEAL BOOT OR SAND COLLAR.
6. ALL JOINTS AND LIFTING HOLES SHALL BE GROUTED FROM THE INSIDE AND OUTSIDE.
7. SEE DETAIL 7-3 FOR MANHOLE COLLAR INSTALLATION.
8. A SEWER GUARD SHALL BE INSTALLED IN ANY MANHOLE SUBJECT TO FLOODING.

DG7-1.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

TYPE 1 MANHOLE

APPROVED			DWG. NO.
CITY ENGINEER			7-1
DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09



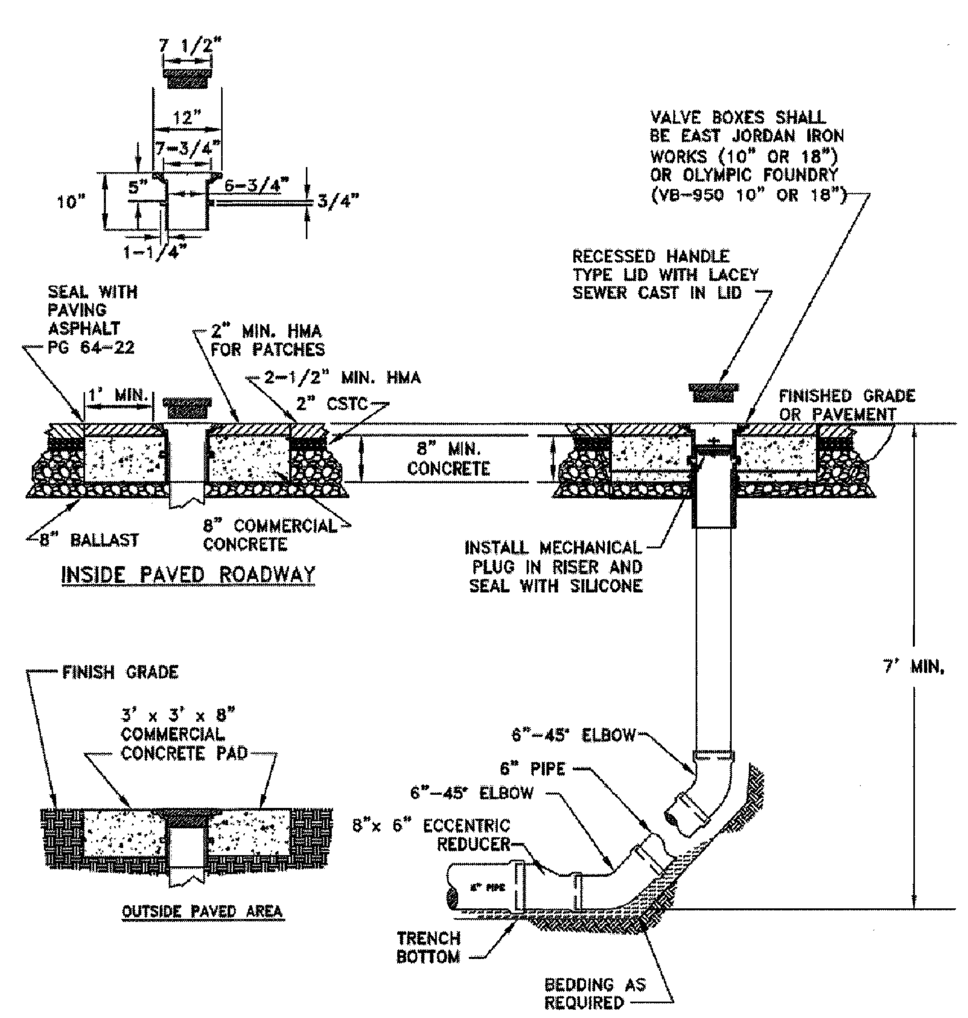
GENERAL NOTES:
1. ON MANHOLES OUTSIDE OF THE ASPHALT ADD REINFORCING STEEL AS SHOWN ABOVE, DEFORMED BAR TO MEET ASTM A615 GRADE 60 FY=60,000 P.S.I.
2. ALL SEWER MANHOLE LID AND RING ASSEMBLIES SHALL BE EAST JORDAN IRON WORKS OR OLYMPIC FOUNDARY WSDOT STYLE #MH-41 CITY OF LACEY LOGO LIDS.
3. ALL SEWER MANHOLE LID AND RING ASSEMBLIES SHALL BE DUCTILE IRON AND MANUFACTURED IN THE USA. NO BOLT DOWN LIDS SHALL BE ALLOWED UNLESS REQUIRED BY THE CITY OF LACEY.
4. ADJUST GRADE RINGS WITH BRICK WEDGES OR GROUT. NO WOOD OR ROCKS SHALL BE USED AS ADJUSTMENT SPACERS.

DG7-3.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

SEWER MANHOLE LOGO LID & FRAME INSTALLATION

APPROVED			DWG. NO.
CITY ENGINEER			7-3
DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09



GENERAL NOTES:
1. ALL SEWER PIPE SHALL BE PVC ASTM 3034 SDR 35.
2. LOCATED IN CENTER OF CUL-DE-SAC.

DG7-5.DWG

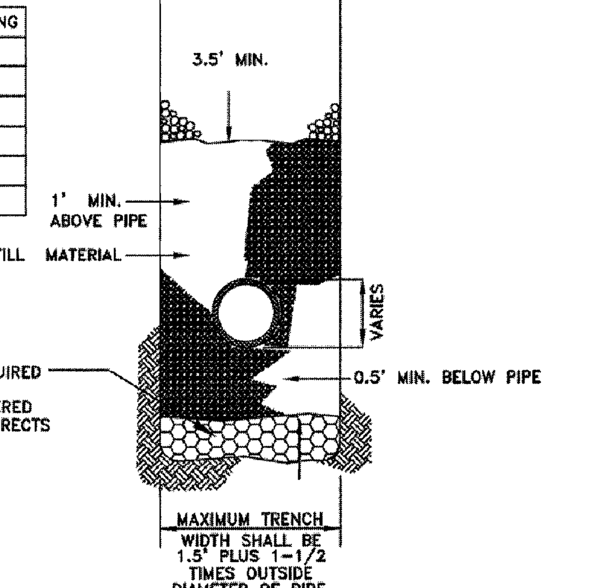
CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

CLEANOUT

APPROVED			DWG. NO.
CITY ENGINEER			7-5
DES	DWN	CKD	DATE
WHO	WHO	RAS	8/27/09

PEA GRAVEL SPECIFICATION

SIEVE NUMBER	PERCENT PASSING
3/8"	85-100
1/4"	
#4	10-30
#8	0-10
#10	
#16	0-5



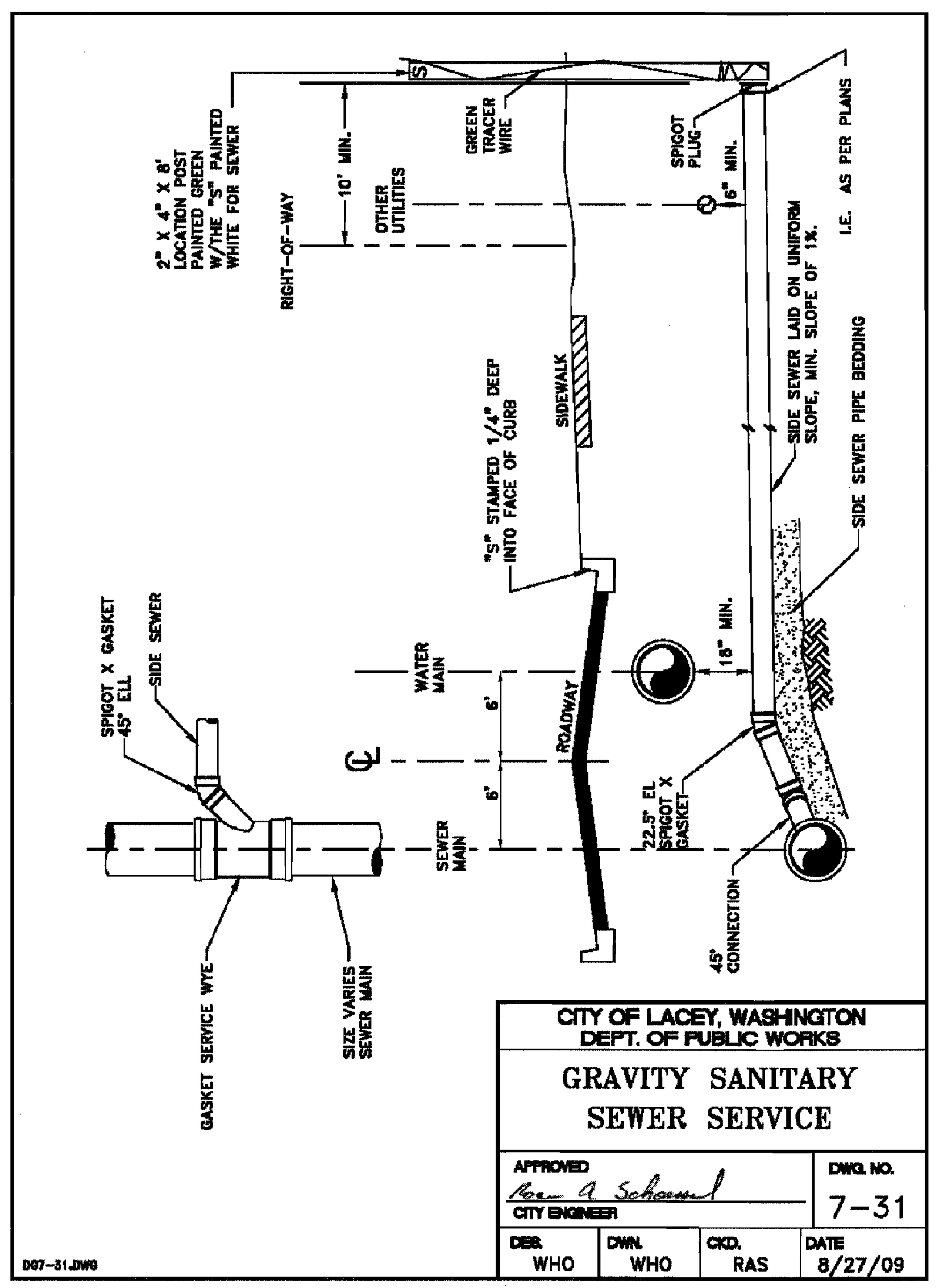
GENERAL NOTES:
1. BEDDING OF THE SEWER MAIN SHALL BE A MINIMUM 6" OF 3/8" - PEA GRAVEL UNDER THE PIPE AND 12" ABOVE THE PIPE. WHEN WORKING IN SENSITIVE SOILS A BARRIER MAYBE REQUIRED TO PREVENT THE FINE SOILS FROM MIGRATING INTO THE PEA GRAVEL. SEE CHART ABOVE.
2. COMPACTION: THE TESTING REQUIREMENTS SHALL BE PER THE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS SECTION 4B.200 TESTING.
3. ALL MATERIALS, WORKMANSHIP, AND INSTALL-ATION SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
4. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

DG7-20.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

GRAVITY SEWER PIPE BEDDING REQUIREMENT

APPROVED			DWG. NO.
CITY ENGINEER			7-20
DES.	DWN.	CKD.	DATE
W.H.O.	W.H.O.	R.A.S.	8/27/09



DG7-31.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

GRAVITY SANITARY SEWER SERVICE

APPROVED			DWG. NO.
CITY ENGINEER			7-31
DES.	DWN.	CKD.	DATE
WHO	WHO	RAS	8/27/09

FOR THE CITY OF LACEY

BY: ________________ DATE: ________

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

SANITARY SEWER
NOTES AND DETAILS
FOR
SOUTHBAY VILLAGE

For:
BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI — STATE OF WASHINGTON — 25672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal N/A; Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/10/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

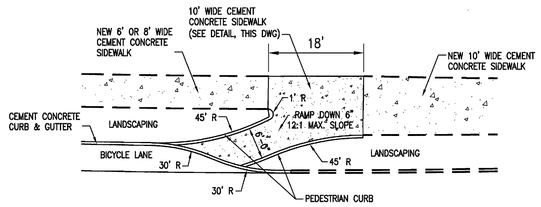
Sheet C18 of 26

File:P:\15000s\15426\preliminary\15426-d3.dwg Date/Time:1/20/2012 2:22 PM Scale:1:1_XREF_XREF MYORK Xref: , z15426-pb.dwg, dan-b.dwg

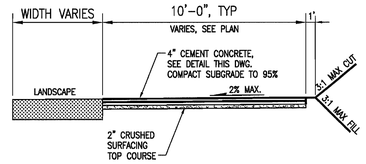
CITY OF LACEY GENERAL STREET CONSTRUCTION NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF LACEY STANDARDS AND THE MOST CURRENT COPY OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE "K" PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF LACEY SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
5. IF CONSTRUCTION IS TO TAKE PLACE IN OTHER JURISDICTION'S RIGHT-OF-WAY (I.E., THE COUNTY, THE STATE, THE CITY OF OLYMPIA, OR OTHER ADJACENT MUNICIPALITIES), THE CONTRACTOR SHALL NOTIFY THE JURISDICTION AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
6. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF LACEY CONSTRUCTION INSPECTOR A MINIMUM 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE, FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
9. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING CHAPTER OF THE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS.
10. TEMPORARY EROSION CONTROL/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15. OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR LACEY. AT NO TIME WILL SILTS AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PROVISIONS HAVE BEEN DESIGNED.
11. SEE APPROPRIATE DETAIL FOR SPECIFICATIONS FOR JOINING NEW AND EXISTING ASPHALT.
12. COMPACTION OF SUBGRADE, ROCK, AND ASPHALT SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ADOPTED VERSION OF THE WSDOT/ APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
13. FORM AND SUBGRADE INSPECTION BY THE CITY IS REQUIRED BEFORE POURING CONCRETE. TWENTY-FOUR HOURS NOTICE IS REQUIRED FOR FORM INSPECTION.
14. SEE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS, CHAPTER 4B.200, FOR TESTING AND SAMPLING FREQUENCIES.
15. THE CITY MANUFACTURES AND INSTALLS PUBLIC AND PRIVATE STREET NAME SIGNS, AND REGULATORY SIGNS AT THE CONTRACTOR'S/ DEVELOPER'S EXPENSE. (SEE 4B.050). SIGNS SHALL BE REQUESTED AT THE TIME STREET CONSTRUCTION BEGINS.

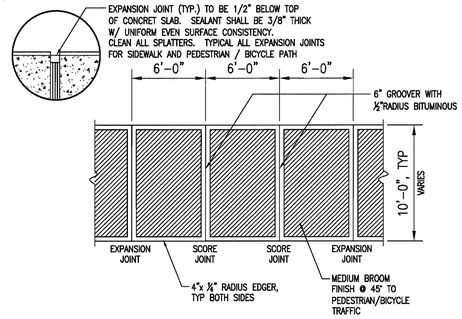
CONSTRUCTION NOTES AND ROADWAY CROSS SECTIONS
FOR
SOUTHBAY VILLAGE



CEMENT CONCRETE PEDESTRIAN/BICYCLE PATH PLAN



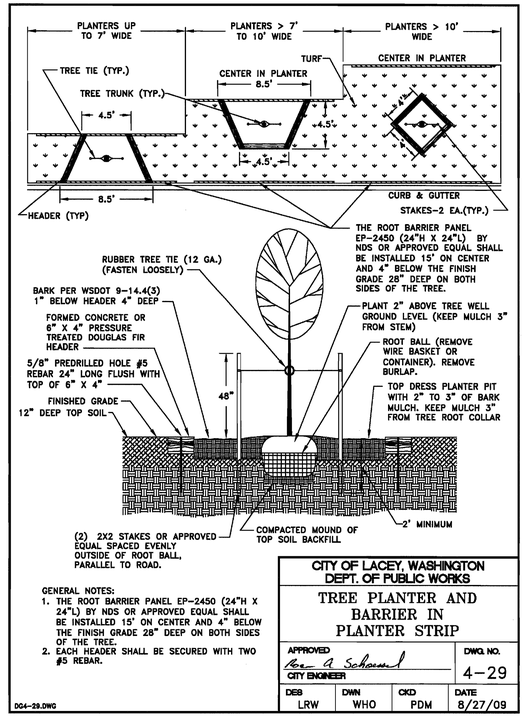
CEMENT CONCRETE PEDESTRIAN/BICYCLE PATH SECTION



NOTES

1. EXPANSION JOINT MATERIAL TO BE 1/2" THICK PREMOLDED JOINT FILLER FULL THICKNESS OF CONCRETE.
2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.
3. SCORE MARKS SHALL BE 1/4" TO 1/2" WIDE AND A MINIMUM OF 1" DEEP.
4. EXPANSION JOINTS SHALL BE INSTALLED IN THE CURB AND GUTTER IN SIDEWALK AT PC AND PT FOR ALL CURB RETURNS. EXPANSION JOINTS SHALL BE PLACED IN THE SIDEWALK AT THE SAME LOCATIONS AS THOSE IN THE CURB AND GUTTER, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

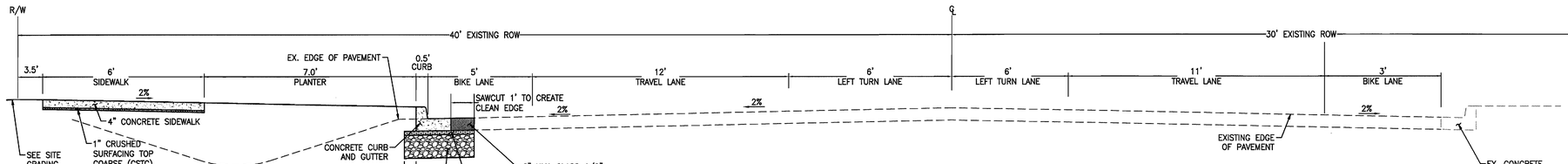
CEMENT CONCRETE PEDESTRIAN/ BICYCLE PATH PLAN DETAIL



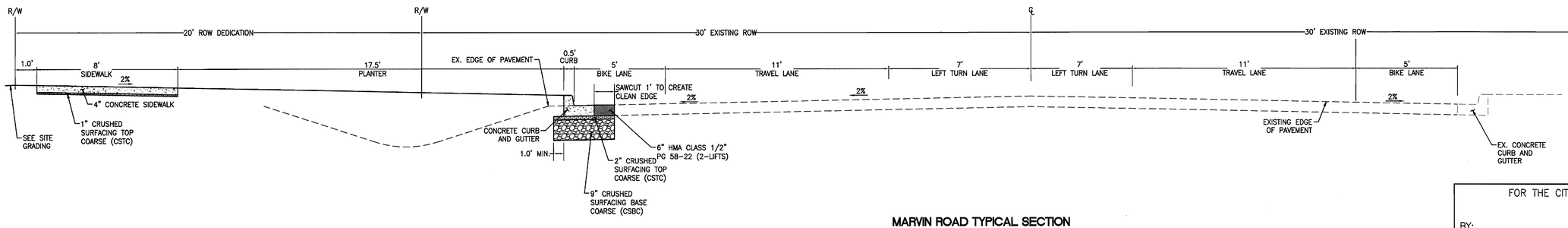
GENERAL NOTES:
1. THE ROOT BARRIER PANEL EP-2450 (24"H X 24"L) BY NDS OR APPROVED EQUAL SHALL BE INSTALLED 15' ON CENTER AND 4" BELOW THE FINISH GRADE 28" DEEP ON BOTH SIDES OF THE TREE.
2. EACH HEADER SHALL BE SECURED WITH TWO #5 REBAR.

DG4-29.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
TREE PLANTER AND BARRIER IN PLANTER STRIP			
APPROVED CITY ENGINEER			DWG. NO. 4-29
DES LRW	DWN WHO	CKD PDM	DATE 8/27/09



HAWKS PRAIRIE ROAD TYPICAL SECTION
(LOOKING WEST)
MAJOR COLLECTOR TYPE II (PER CITY STD PLAN 4-3.1)
NTS



MARVIN ROAD TYPICAL SECTION
(LOOKING NORTH)
ARTERIAL ROADWAY (PER CITY STD PLAN 4-2.2)
NTS

FOR THE CITY OF LACEY

BY: _____ DATE: _____

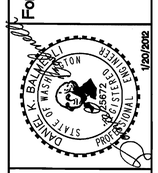
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Chkd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
CONSTRUCTION NOTES AND ROADWAY CROSS SECTIONS FOR SOUTHBAY VILLAGE

For:
BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399



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Designed CP Drawn CP Checked KS Approved DKB Date 2/15/11

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES
BARGHAUSEN CONSULTING ENGINEERS, INC.

Job Number 15426

Sheet C19 of 26

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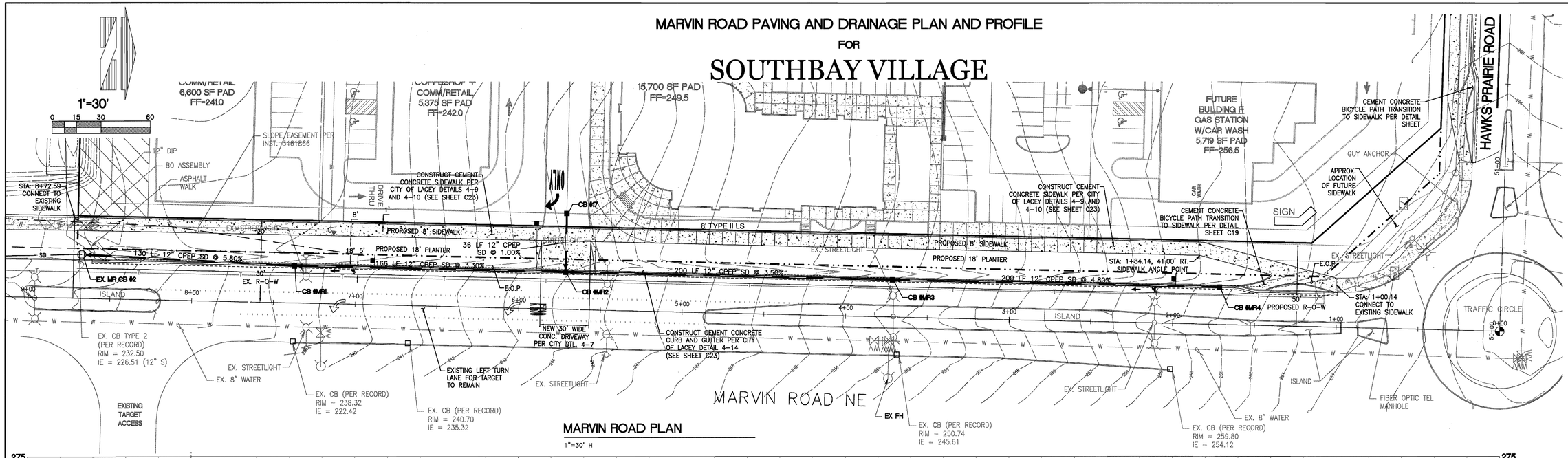
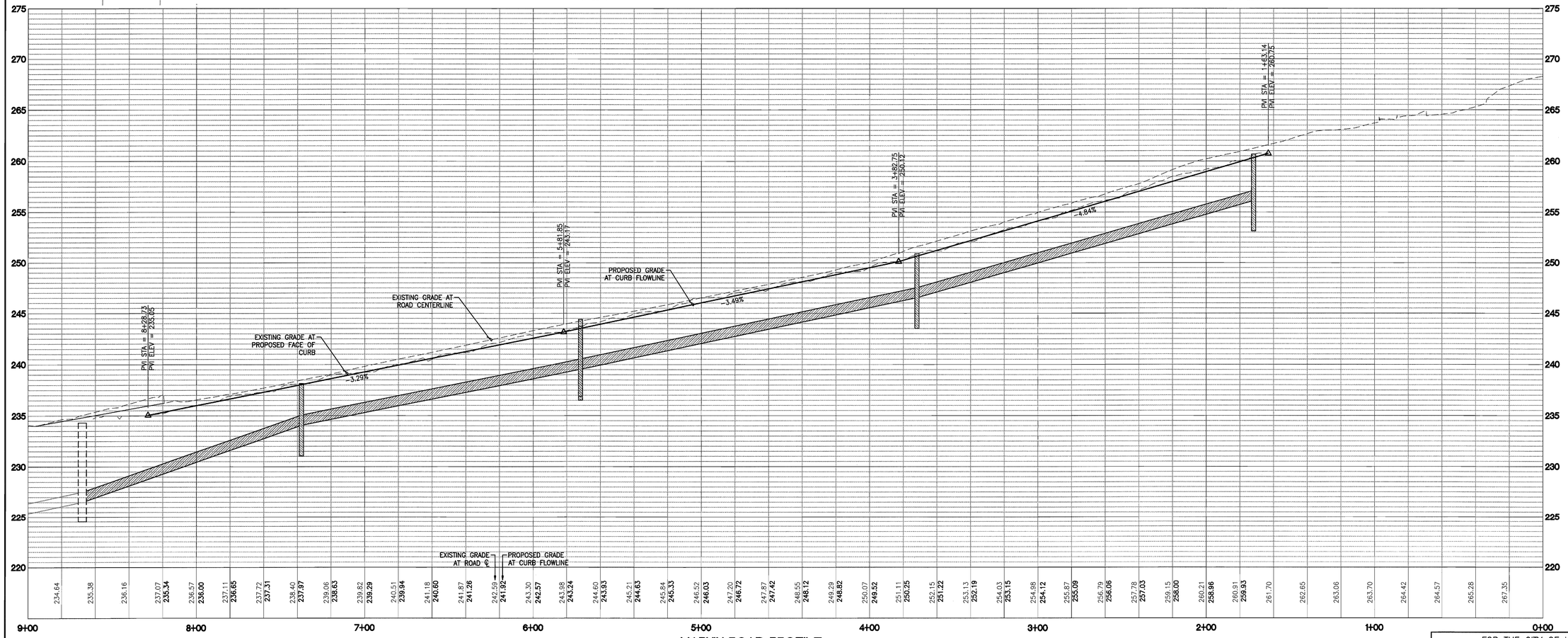
MARVIN ROAD PAVING AND DRAINAGE PLAN AND PROFILE
FOR
SOUTHBAY VILLAGE



MARVIN ROAD PLAN
1"=30' H



MARVIN ROAD PROFILE
1"=30' H 1"=5' V

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Revision	Date	By	Ckd.	Appr.

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
MARVIN ROAD
PAVING AND DRAINAGE PLAN AND PROFILE
FOR
SOUTHBAY VILLAGE

For:
BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BARGHAUSEN STATE OF WASHINGTON 15672 REGISTERED PROFESSIONAL ENGINEER 1/20/2012

Scale: Horizontal 1"=30" Vertical N/A
Designed CP Drawn CP Checked AS Approved DKB Date 2/15/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C20 of 26

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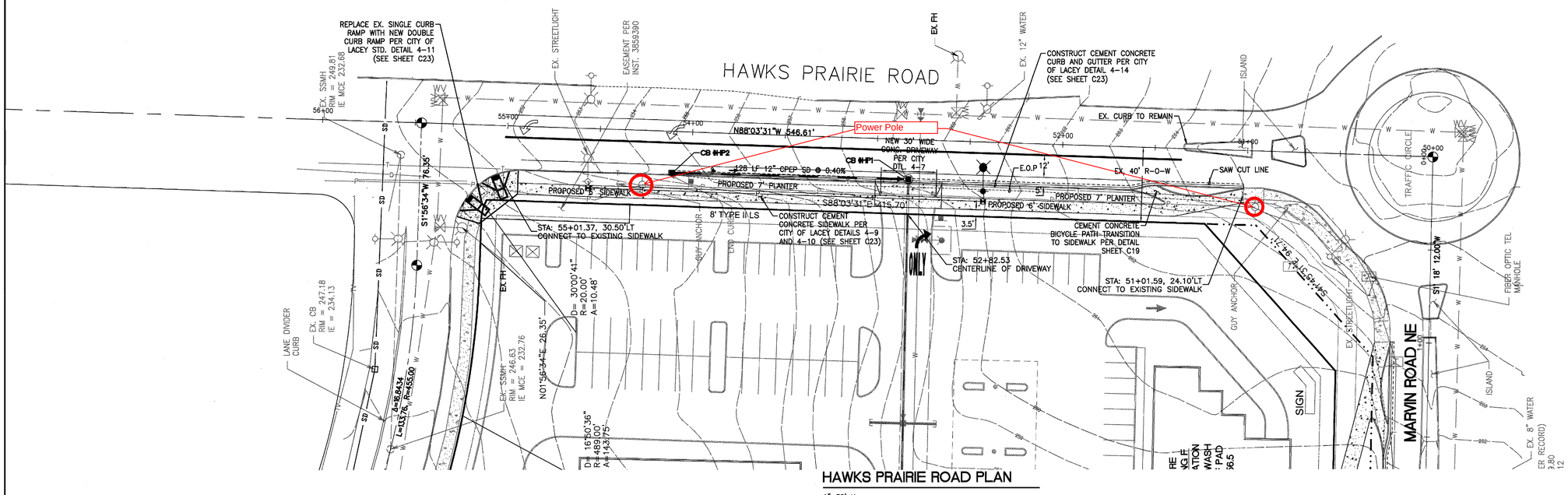
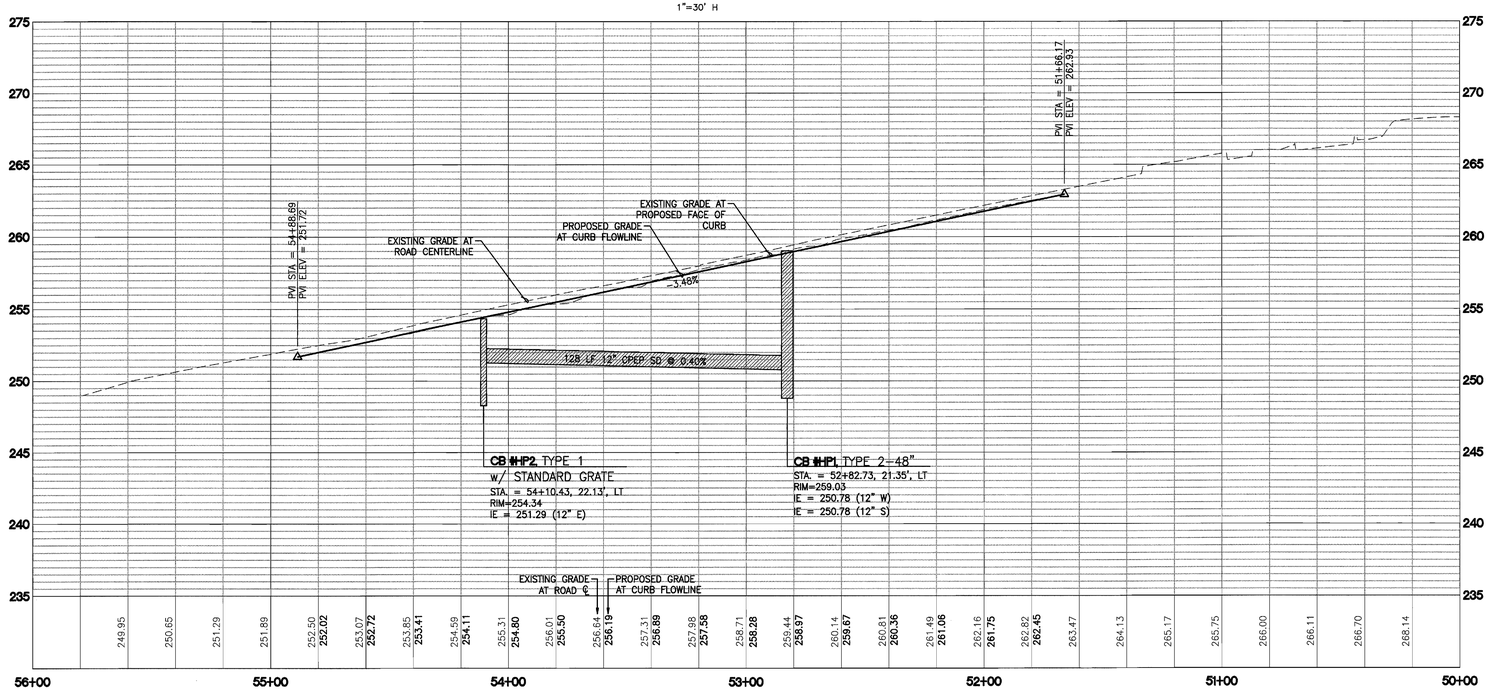
HAWKS PRAIRIE ROAD PAVING AND DRAINAGE PLAN AND PROFILE
FOR
SOUTHBAY VILLAGE

1"=30'

0 15 30 60



HAWKS PRAIRIE ROAD PLAN
1"=30' H



HAWKS PRAIRIE ROAD PROFILE
1"=30' H 1"=5' V

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:
BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:
CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
HAWKS PRAIRIE ROAD
PAVING AND DRAINAGE PLAN AND PROFILE
FOR
SOUTHBAY VILLAGE

For:

K. BALLANTINE — STATE OF WASHINGTON — 22672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=30' Vertical N/A

Designed CP Drawn CP Checked AS Approved DKB Date 2/15/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS, INC.

Job Number 15426

Sheet C21 of 26

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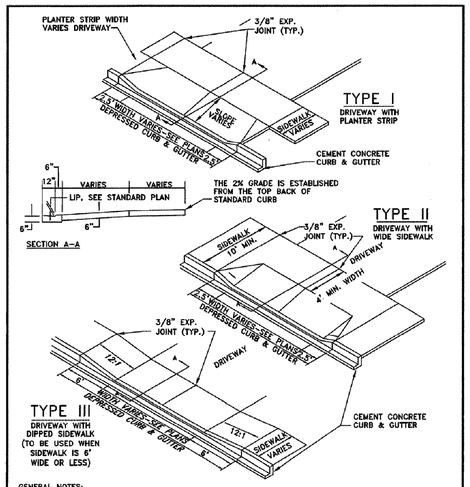
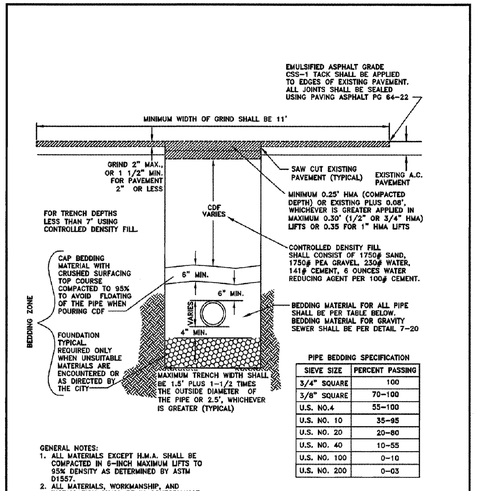
ROADWAY DETAILS
FOR
SOUTHBAY VILLAGE



GENERAL NOTES:
1. FORMS SHALL BE OF WOOD OR METAL AND SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE, SEE SECTION 8-14.3(2).
2. ALL FORMS SHALL BE STRAIGHT, FREE FROM WARP AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT SPRING.
3. WHERE D/W EXCEEDS 16' WIDTH A 2" DEEP EXPANSION JOINT SHALL BE PLACED TRANSVERSELY, CENTERED IN WALK.
4. FORM AND SUBGRADE INSPECTION ARE REQUIRED BEFORE POURING CONCRETE.
5. DRIVEWAYS SHALL BE 6" THICK, MIN. SIDEWALK AND DRIVEWAY APRON SHALL BE 6" THICK MIN. THROUGH DRIVEWAY SECTION.
6. SIDEWALK CROSS SLOPE 1% MIN. TO MAX. 2%.

DG4-7.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
CEMENT CONCRETE DRIVEWAY			
APPROVED CITY ENGINEER			DWG. NO. 4-7
DES. WHO	DWN. WHO	CKD. MAH	DATE 8/27/09



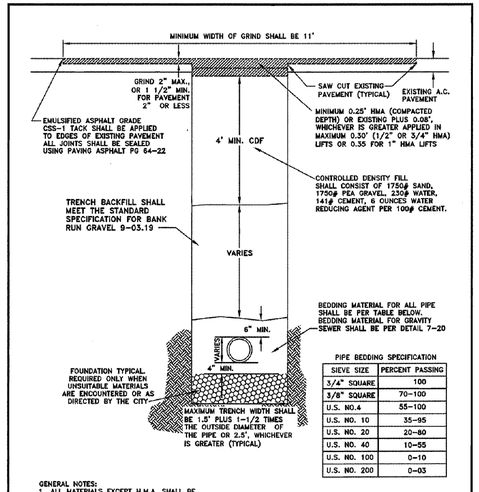
PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70-100
U.S. NO.4	55-100
U.S. NO. 10	35-95
U.S. NO. 20	20-80
U.S. NO. 40	10-55
U.S. NO. 100	0-10
U.S. NO. 200	0-03

GENERAL NOTES:
1. ALL MATERIALS EXCEPT H.M.A. SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH. ALLOW 24 HOURS MINIMUM FOR TRENCH PATCH TO CURE. GRIND AND PAVE FINAL PATCH AS SHOWN.

DG4-8.0.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
PERPENDICULAR SHALLOW TRENCH RESTORATION ARTERIALS, BLVDS. & COLLECTORS			
APPROVED CITY ENGINEER			DWG. NO. 4-8.0
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09



PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70-100
U.S. NO.4	55-100
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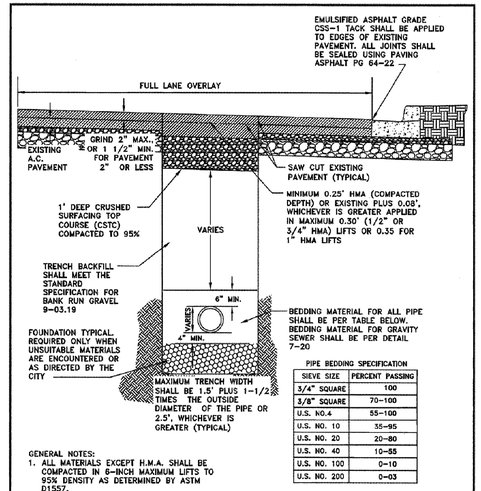
GENERAL NOTES:
1. ALL MATERIALS EXCEPT H.M.A. SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH. ALLOW 24 HOURS MINIMUM FOR TRENCH PATCH TO CURE. GRIND AND PAVE FINAL PATCH AS SHOWN.

DG4-8.1.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
PERPENDICULAR TRENCH RESTORATION ARTERIALS, BLVDS. & COLLECTORS			
APPROVED CITY ENGINEER			DWG. NO. 4-8.1
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09



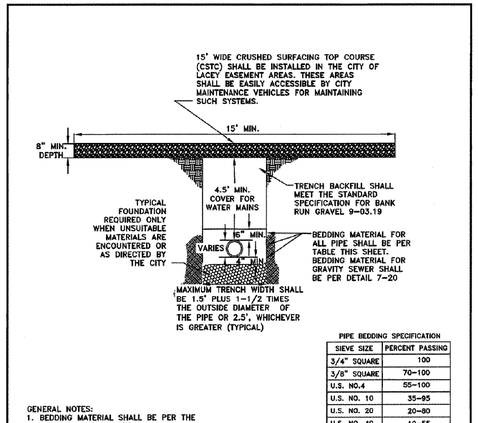
PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70-100
U.S. NO.4	55-100
U.S. NO. 10	35-95
U.S. NO. 20	20-80
U.S. NO. 40	10-55
U.S. NO. 100	0-10
U.S. NO. 200	0-03

GENERAL NOTES:
1. ALL MATERIALS EXCEPT H.M.A. SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF LACEY STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH. ALLOW 24 HOURS MINIMUM FOR TRENCH PATCH TO CURE. GRIND AND PAVE FINAL PATCH AS SHOWN.

DG4-8.3.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
PARALLEL TRENCH RESTORATION ARTERIALS, BLVDS. & COLLECTORS			
APPROVED CITY ENGINEER			DWG. NO. 4-8.3
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09



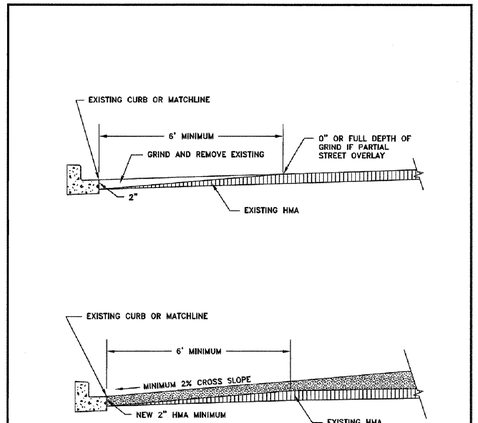
PIPE BEDDING SPECIFICATION

SIEVE SIZE	PERCENT PASSING
3/4" SQUARE	100
3/8" SQUARE	70-100
U.S. NO.4	55-100
U.S. NO. 10	35-95
U.S. NO. 20	20-80
U.S. NO. 40	10-55
U.S. NO. 100	0-10
U.S. NO. 200	0-03

GENERAL NOTES:
1. BEDDING MATERIAL SHALL BE PER THE CHART ON THIS SHEET.
2. COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MIN. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 90% MIN. IN UNPAVED AREAS AND 95% MIN. IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTMD 1557.
3. ALL MATERIALS, WORKMANSHIP AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY THE CITY OF LACEY STANDARDS.
4. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

DG4-8.4.DWG

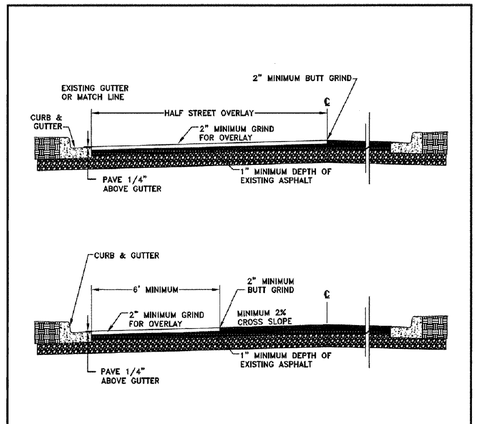
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
TRENCH RESTORATION FOR UNPAVED AREAS			
APPROVED CITY ENGINEER			DWG. NO. 4-8.4
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09



GENERAL NOTES:
1. GRINDING SHALL BE DONE PER WSDOT SPECIFICATIONS.
2. IDENTIFY AND PROTECT ALL LOOP AND LOOP LEAD-INS DURING GRINDING.
3. ALL PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO PAVING.
4. ALL INDUCTION LOOPS SHALL BE INSTALLED PRIOR TO FINAL OVERLAY.
5. ALL JOINTS SHALL BE SEALED USING PAVING ASPHALT PG 64-22

DG4-8.6.DWG

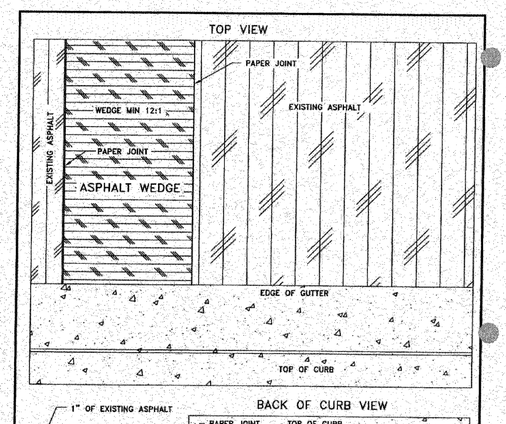
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
PAVEMENT EDGE GRINDING DETAIL			
APPROVED CITY ENGINEER			DWG. NO. 4-8.6
DES PDM	DWN WHO	CKD MAH	DATE 8/27/09



GENERAL NOTES:
1. GRINDING SHALL BE DONE PER WSDOT SPECIFICATIONS.
2. IDENTIFY AND PROTECT ALL LOOP AND LOOP LEAD-INS DURING GRINDING.
3. ALL PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO PAVING.
4. ALL INDUCTION LOOPS SHALL BE INSTALLED PRIOR TO FINAL OVERLAY.
5. ALL JOINTS SHALL BE SEALED WITH PG 64-22.

DG4-8.7.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
HALF STREET GRIND & OVERLAY			
APPROVED CITY ENGINEER			DWG. NO. 4-8.7
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09



GENERAL NOTES:
1. THE MINIMUM GRIND SHALL BE 2".
2. WEDGES SHALL BE INSTALLED AT ALL GRINDS.
3. ALL WEDGES SHALL BE INSTALLED AT A MINIMUM OF 12:1 SLOPE.
4. AREAS GROUND SHALL BE MAINTAINED TO PREVENT POTHOLES.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CUT, TRENCHED OR GRIND AREAS 24 HOURS A DAY 7 DAYS A WEEK.

DG4-8.8.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
WEDGES REQUIRED WHEN GRINDING ASPHALT			
APPROVED CITY ENGINEER			DWG. NO. 4-8.8
DES WHO	DWN WHO	CKD RAS	DATE 9/9/09

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

ROADWAY DETAILS FOR SOUTHBAY VILLAGE

For:

DANIEL K. BARGHAUSEN — STATE OF WASHINGTON — 22672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal N/A Vertical N/A

Designed OP Drawn CP Checked AS Approved DKB Date 2/15/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426

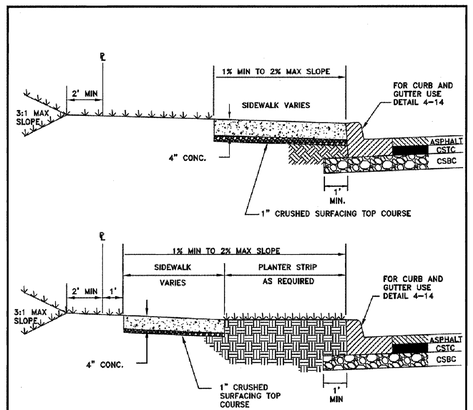
Sheet C22 of 26

File:P:\15000s\15426\preliminary\15426-rd2.dwg Date/Time:1/20/2012 2:32 PM Scale:1" = 1' MYORK Xref: , z15426-pb.dwg, dan-b.dwg

ROADWAY DETAILS

FOR

SOUTHBAY VILLAGE



NTS

GENERAL NOTES:
1. FORMS SHALL BE WOOD OR METAL AND SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE, SEE SECTION 8-14.3(2).
2. ALL FORMS SHALL BE STRAIGHT, FREE FROM WARP, AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT SPRING.
3. FOR JOINTS AND SCORING SEE DETAIL 4-10.
4. CONCRETE DRIVEWAYS REQUIRE A MINIMUM DEPTH OF 6".
5. SEE ROADWAY SECTIONS FOR STREET TREE LOCATIONS.
6. THE TOP OR TOE OF ALL SLOPES SHALL BEGIN 2' BACK OF THE SIDEWALK OR THE RIGHT-OF-WAY LINE.
7. WHEN APPLICABLE THE RIGHT-OF-WAY LINE SHALL BE 1' BEHIND THE SIDEWALK.

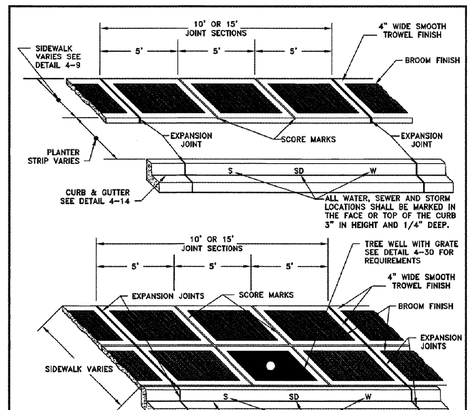
DG4-9.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

SIDEWALK

APPROVED CITY ENGINEER	DWG. NO.
	4-9

DES.	DWN.	CK'D.	DATE
WHO	WHO	RAS	8/27/09



GENERAL NOTES:
1. FORMS SHALL BE WOOD OR METAL AND SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE, SEE SECTION 8-14.3(2).
2. ALL FORMS SHALL BE STRAIGHT, FREE FROM WARP AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT SPRING.
3. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PREMOLDED JOINT FILLER FULL THICKNESS OF CONCRETE AND INSTALLED FLUSH OR 1/4" BELOW FINISH GRADE.
4. FORM AND SUBGRADE INSPECTION ARE REQUIRED BEFORE POURING CONCRETE.
5. PLACEMENT OF STREET LIGHTING, TREES, HYDRANTS AND WATER METERS SHALL BE PER THE DETAILS OF ITS PERSPECTIVE SECTIONS.
6. SCORE MARKS SHALL BE 1/8" TO 1/4" WIDE AND A MINIMUM OF 1" DEEP.
7. EXPANSION JOINTS SHALL BE INSTALLED IN THE CURB & GUTTER AND SIDEWALK AT THE PC AND PT FOR ALL CURB RETURNS. EXPANSION JOINTS SHALL BE PLACED IN THE SIDEWALK AT THE SAME LOCATIONS AS THOSE IN THE CURB & GUTTER WHEN THE SIDEWALK IS ADJACENT TO CURB & GUTTER, OR UNLESS OTHERWISE DIRECTED BY THE CITY.

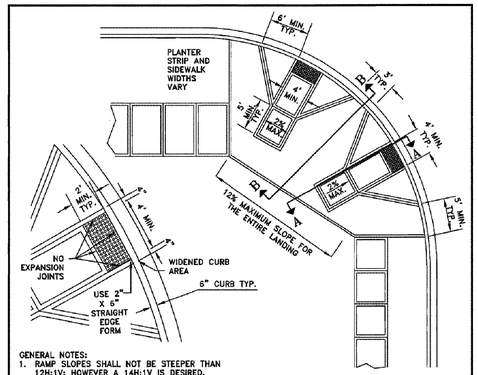
DG4-10.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

SIDEWALK SPACING
EXPANSION JOINTS & SCORE MARKS

APPROVED CITY ENGINEER	DWG. NO.
	4-10

DES.	DWN.	CK'D.	DATE
EP	WHO	RAS	8/27/09



GENERAL NOTES:
1. RAMP SLOPES SHALL NOT BE STEEPER THAN 12H:1V, HOWEVER A 14H:1V IS DESIRED.
2. THE RIGHT-OF-WAY LINE SHALL BE 1' BEHIND THE SIDEWALK.
3. THE CURB RAMP SHALL BE POURED SEPARATE FROM THE SIDEWALK SECTION.
4. THE TRUNCATED DOME PANEL IS REQUIRED AS SHOWN AND SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
5. STAMPING OF TRUNCATED DOMES SHALL NOT BE ALLOWED.
6. THE TRUNCATED DOME SHALL BE A 2' (W) X 4' (L) PANEL. THE DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW IN COMPLIANCE WITH STANDARD SPECIFICATION 8-14.3.
7. CUTTING OR ALTERING THE TRUNCATED DOME PANEL SHALL NOT BE ALLOWED.
8. THERE SHALL BE NO EXPANSION MATERIAL AROUND THE TRUNCATED DOME PANEL.
9. FOR SIDEWALK SPACING, EXPANSION JOINTS, SCORE MARKS, CRUSHED BEDDING OR ADDITIONAL NOTES SEE DETAILS 4-9 AND 4-10.
10. THE SLOPE FOR THE ENTIRE LANDING SHALL NOT EXCEED 12%.
11. IT MAY BE NECESSARY TO CONSTRUCT A WALL STRUCTURE OR SLOPE TO TRANSITION BETWEEN THE CURB RAMP LANDING AND THE PROPERTY BEHIND IT.
12. THE BACK EDGE OF THE CURB RAMP SHALL ALIGN WITH THE BACK EDGES OF THE SIDEWALKS ON EACH SIDE OF IT.

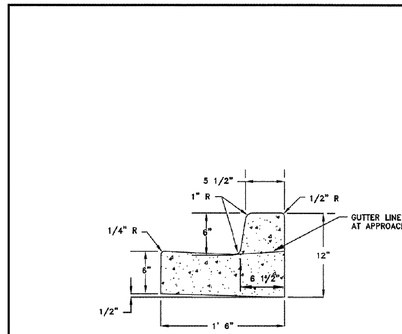
DG4-11.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

CURB RAMP TYPE I

APPROVED CITY ENGINEER	DWG. NO.
	4-11

DES.	DWN.	CK'D.	DATE
WHO	WHO	RAS	8/27/09



TYPE I

GENERAL NOTES:
1. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PREMOLDED. JOINT FILLER FULL THICKNESS OF CONCRETE SPACING.
2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.
3. TYPE I USED ON OUTSIDE LANES.
4. TYPE II USED IN REVERSE SLOPE AREAS.
5. SEE 48.025 FOR SPECIFICATIONS FOR CURBS AT MEDIANS.

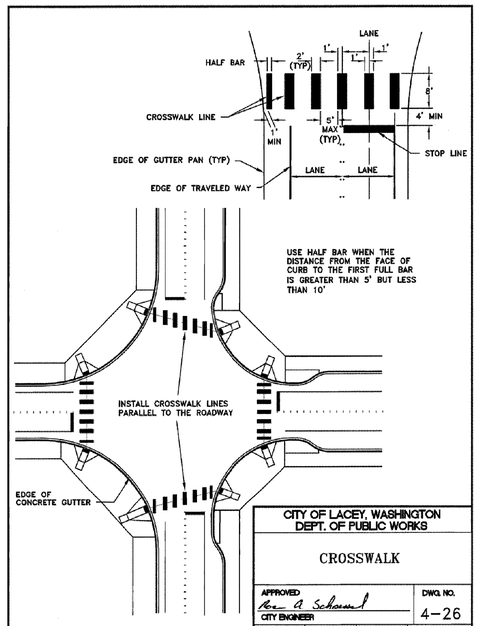
DG4-14.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

CEMENT CONCRETE
CURB & GUTTER

APPROVED CITY ENGINEER	DWG. NO.
	4-14

DES.	DWN.	CK'D.	DATE
WHO	WHO	MAH	8/27/09



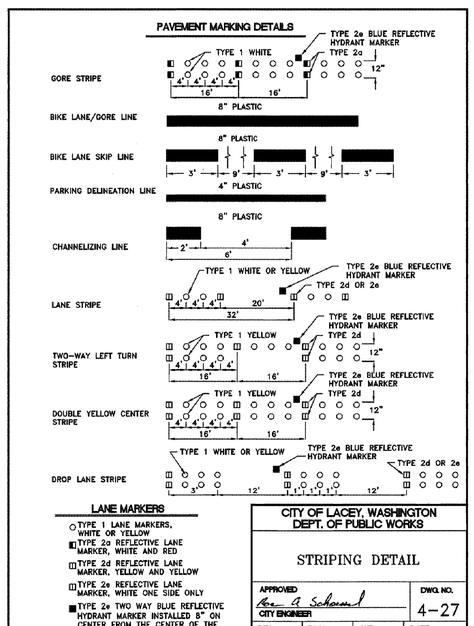
DG4-26.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

CROSSWALK

APPROVED CITY ENGINEER	DWG. NO.
	4-26

DES.	DWN.	CK'D.	DATE
WHO	WHO	RAS	8/27/09



LANE MARKERS
- TYPE 1 LANE MARKERS, WHITE OR YELLOW
- TYPE 2e REFLECTIVE LANE MARKER, WHITE AND RED
- TYPE 2d REFLECTIVE LANE MARKER, YELLOW AND YELLOW
- TYPE 2e REFLECTIVE LANE MARKER, WHITE ONE SIDE ONLY
- TYPE 2e TWO WAY BLUE REFLECTIVE HYDRANT MARKER INSTALLED 8" ON CENTER FROM THE CENTER OF THE ROADWAY.

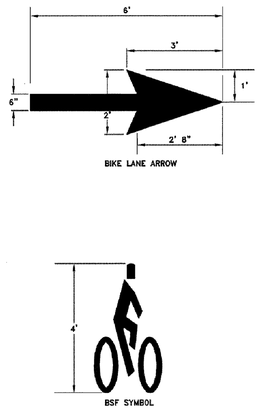
DG4-27.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

STRIPING DETAIL

APPROVED CITY ENGINEER	DWG. NO.
	4-27

DES.	DWN.	CK'D.	DATE
MAH	WHO	PDM	8/27/09



GENERAL NOTES:
1. THE MATERIALS USED FOR ALL STOP LINES, CROSSWALKS, ARROWS, PARKING DELINEATION LINES, LETTERS, LEGENDS, AND SYMBOLS SHALL BE PREMARK OR HOT TAPE PREFORMED THERMOPLASTIC 125 MIL THICKNESS.
2. THE PLASTIC MATERIAL USED TO FORM ALL LONG LINE PAVEMENT MARKINGS SHALL BE PAVE-MARK OR NORLINE THERMOPLASTIC.
2. ALL MARKINGS SHALL MEET FEDERAL METRIC STANDARDS.

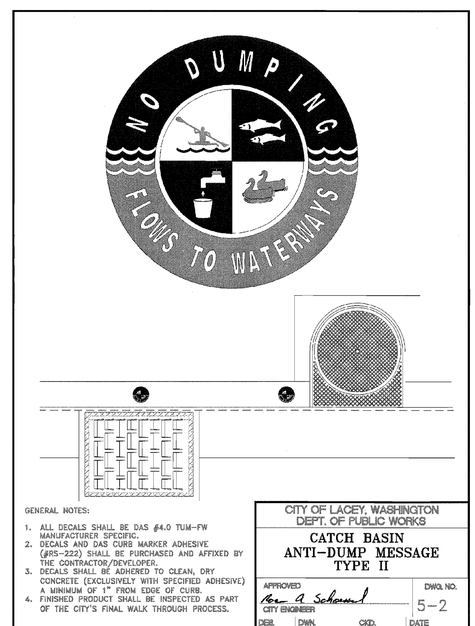
DG4-28.2.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

PAVEMENT MARKINGS
BICYCLE LANES

APPROVED CITY ENGINEER	DWG. NO.
	4-28.2

DES.	DWN.	CK'D.	DATE
WHO	WHO	RAS	8/27/09



GENERAL NOTES:
1. ALL DECALS SHALL BE DAS #4.0 TUM-FW MANUFACTURER SPECIFIC.
2. DECALS AND DAS CURB MARKER ADHESIVE (#RS-222) SHALL BE PURCHASED AND AFFIXED BY THE CONTRACTOR/DEVELOPER.
3. DECALS SHALL BE ADHERED TO CLEAN, DRY CONCRETE (EXCLUSIVELY WITH SPECIFIED ADHESIVE) A MINIMUM OF 1" FROM EDGE OF CURB.
4. FINISHED PRODUCT SHALL BE INSPECTED AS PART OF THE CITY'S FINAL WALK THROUGH PROCESS.

DG5-2.DWG

CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

CATCH BASIN
ANTI-DUMP MESSAGE
TYPE II

APPROVED CITY ENGINEER	DWG. NO.
	5-2

DES.	DWN.	CK'D.	DATE
CDL	WHO	TW	8/27/09

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

ROADWAY DETAILS
FOR
SOUTHBAY VILLAGE

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

For:

K. BALLESTEROS — STATE OF WASHINGTON — 15472 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Scale: Horizontal N/A Vertical N/A

Designed CP Drawn CP Checked AS Approved DKB Date 2/15/11

Job Number 15426

Sheet C23.26

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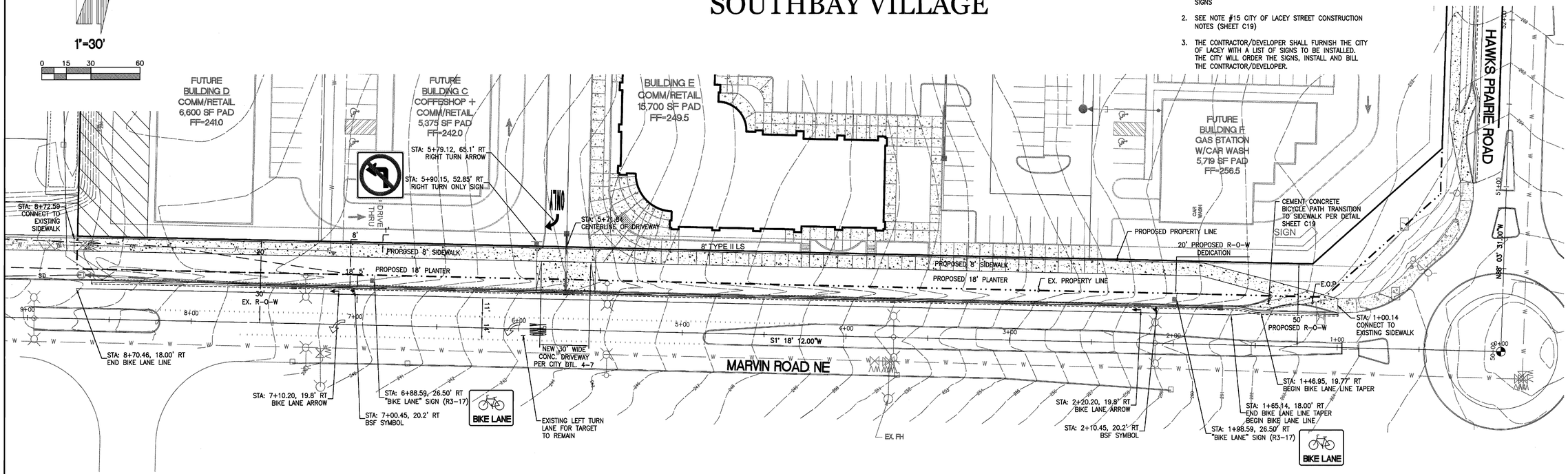
MARVIN ROAD CHANNELIZATION PLAN AND DETAILS
FOR
SOUTHBAY VILLAGE

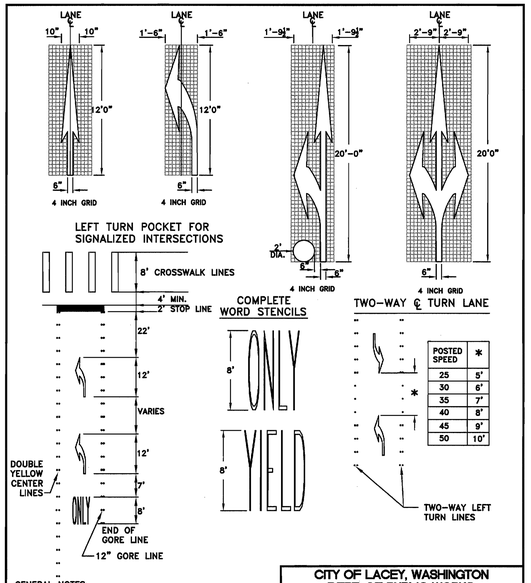
NOTES:

1. ALL CITY OF LACEY SIGNS REGULATORY OR NOT SHALL BE HANDLED BY THE CITY ONLY. CONTACT THE INSPECTOR FOR THE REMOVAL OR RELOCATION OF ALL SIGNS
2. SEE NOTE #15 CITY OF LACEY STREET CONSTRUCTION NOTES (SHEET C19)
3. THE CONTRACTOR/DEVELOPER SHALL FURNISH THE CITY OF LACEY WITH A LIST OF SIGNS TO BE INSTALLED. THE CITY WILL ORDER THE SIGNS, INSTALL AND BILL THE CONTRACTOR/DEVELOPER.

1"=30'

0 15 30 60

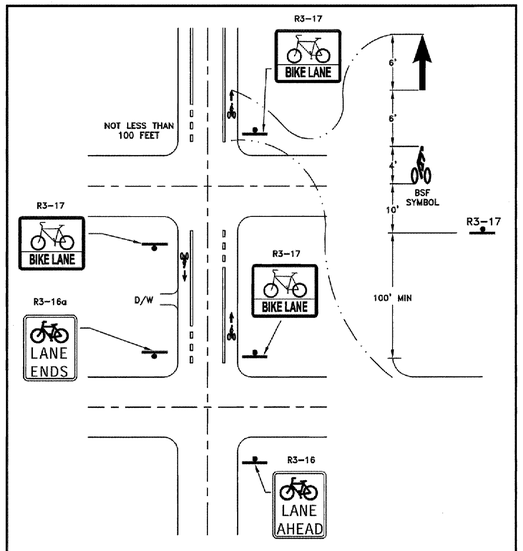




GENERAL NOTES:
1. THE MATERIALS USED FOR ALL STOP LINES, CROSSWALKS, ARROWS, PARKING DELINEATION LINES, LETTERS, LEGENDS, AND SYMBOLS SHALL BE PREMARK OR HOT TAPE PREFORMED THERMOPLASTIC 125 MIL THICKNESS.
2. THE PLASTIC MATERIAL USED TO FORM ALL LONG LINE PAVEMENT MARKINGS SHALL BE PAVE-MARK OR NORLINE THERMOPLASTIC, HYDROCARBONFORMULATION125 MIL THICKNESS MARKING MATERIAL.
3. ALL MARKINGS SHALL MEET FEDERAL METRIC STANDARDS.

DG4-28.1.DWG

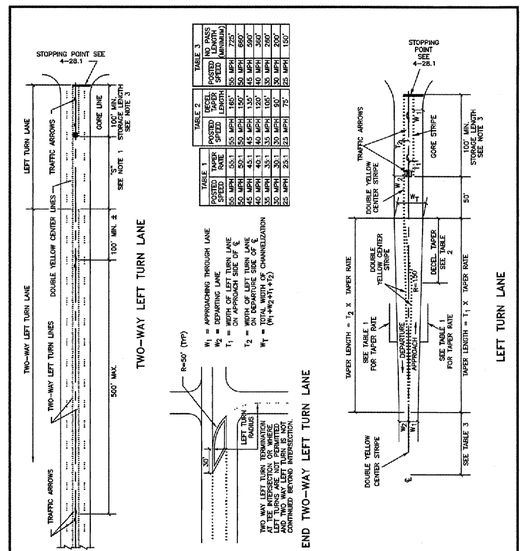
CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
PAVEMENT MARKINGS			
APPROVED CITY ENGINEER			DWG. NO. 4-28.1
DES	DWN	CKD	DATE
PDM	WHO	MAH	8/27/09



GENERAL NOTES:
1. BIKE LANE SIGNS R3-17 SHALL BE PLACED AT FAR SIDE OF THE INTERSECTION.
2. THE SPACING FOR THE R3-17 SIGNS SHALL BE 800 FEET MAXIMUM.

DG4-28.3.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
BIKE LANE SIGNING AT INTERSECTIONS			
APPROVED CITY ENGINEER			DWG. NO. 4-28.3
DES	DWN	CKD	DATE
MAH	WHO	PDM	8/27/09



NOTES:
1. "S" = 80' FOR POSTED SPEED ≤ 30 M.P.H.
   "S" = 120' FOR POSTED SPEED 35-50 M.P.H.
   "S" = 170' FOR POSTED SPEED > 50 M.P.H.
2. SEE DETAIL 4-28.1 FOR STRIPING SPECIFICATIONS.
3. USE DESIGN LENGTH DETERMINED BY THE T.I.A.

DG4-28.5.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
LEFT TURN LANE PAVEMENT MARKINGS			
APPROVED CITY ENGINEER			DWG. NO. 4-28.5
DES	DWN	CKD	DATE
MAH	WHO	PDM	8/27/09

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT (800) 424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Chkd.	Appr.	Revision

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
MARVIN ROAD
CHANNELIZATION PLAN AND DETAILS
FOR
SOUTHBAY VILLAGE

For:

1/20/2012

Scale: Horizontal 1"=30' Vertical N/A
Designed ___OP___ Drawn ___CP___ Checked ___AS___ Approved ___DKB___ Date 2/15/11

BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C24 of 26

File:P:\15000s\15426\preliminary\15426-rch1.dwg Date/Time:1/20/2012 2:30 PM Scale:1" = 1' MYORK Xref: , z15426-pb.dwg, don-b.dwg, z15426-pd.dwg, z15426-pl.dwg, z15426-pp.dwg

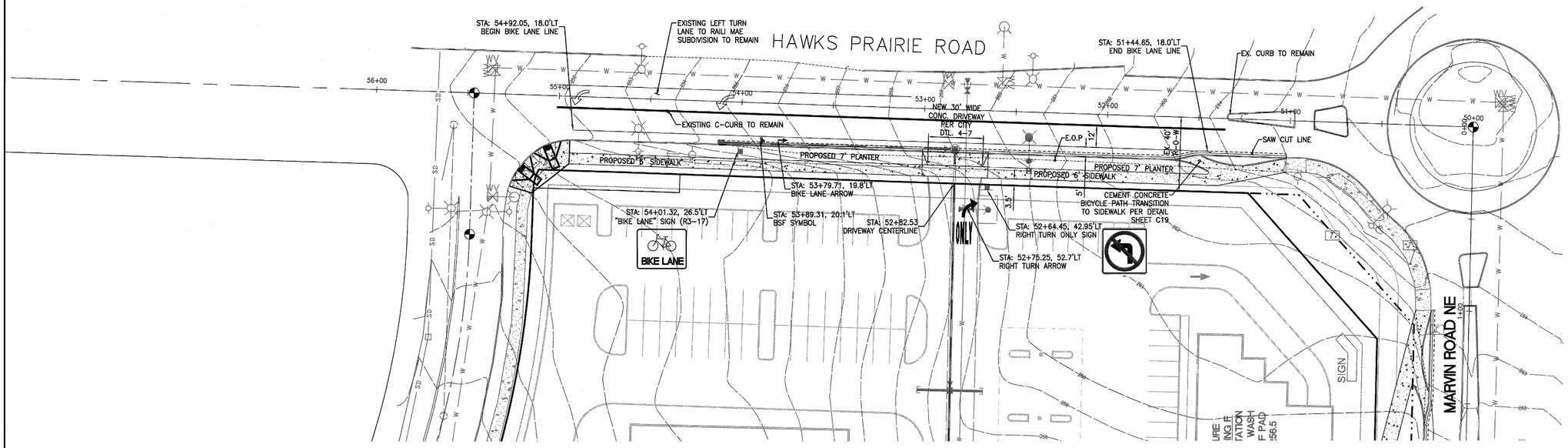
HAWKS PRAIRIE ROAD CHANNELIZATION PLAN AND DETAILS
FOR
SOUTHBAY VILLAGE

1"=30'

0 15 30 60

NOTES:

1. ALL CITY OF LACEY SIGNS REGULATORY OR NOT SHALL BE HANDLED BY THE CITY ONLY. CONTACT THE INSPECTOR FOR THE REMOVAL OR RELOCATION OF ALL SIGNS
2. SEE NOTE #15 CITY OF LACEY STREET CONSTRUCTION NOTES (SHEET C19)
3. THE CONTRACTOR/DEVELOPER SHALL FURNISH THE CITY OF LACEY WITH A LIST OF SIGNS TO BE INSTALLED. THE CITY WILL ORDER THE SIGNS, INSTALL AND BILL THE CONTRACTOR/DEVELOPER.



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BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: _____ DATE: _____
PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Revision	Date	By	Chkd.	Appr.

Title: S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON
HAWKS PRAIRIE ROAD
CHANNELIZATION PLAN AND DETAILS
FOR
SOUTHBAY VILLAGE

For:
BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BARGHAUSEN — STATE OF WASHINGTON — 20672 — REGISTERED PROFESSIONAL ENGINEER — 1/20/2012

Scale: Horizontal 1"=30" Vertical N/A
Designed CP Drawn CP Checked AS Approved DKB Date 2/15/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
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CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 15426
Sheet C25 of 26

File:P:\15000s\15426\preliminary\15426-rch2.dwg Date/Time:1/20/2012 2:30 PM Scale:1" = 1' MTORK Xref: , z15426-pb.dwg, dan-b.dwg, z15426-ps.dwg, z15426-pl.dwg, z15426-pp.dwg

MARVIN ROAD AND HAWKS PRAIRIE ROAD ILLUMINATION PLAN, NOTES AND DETAILS

FOR

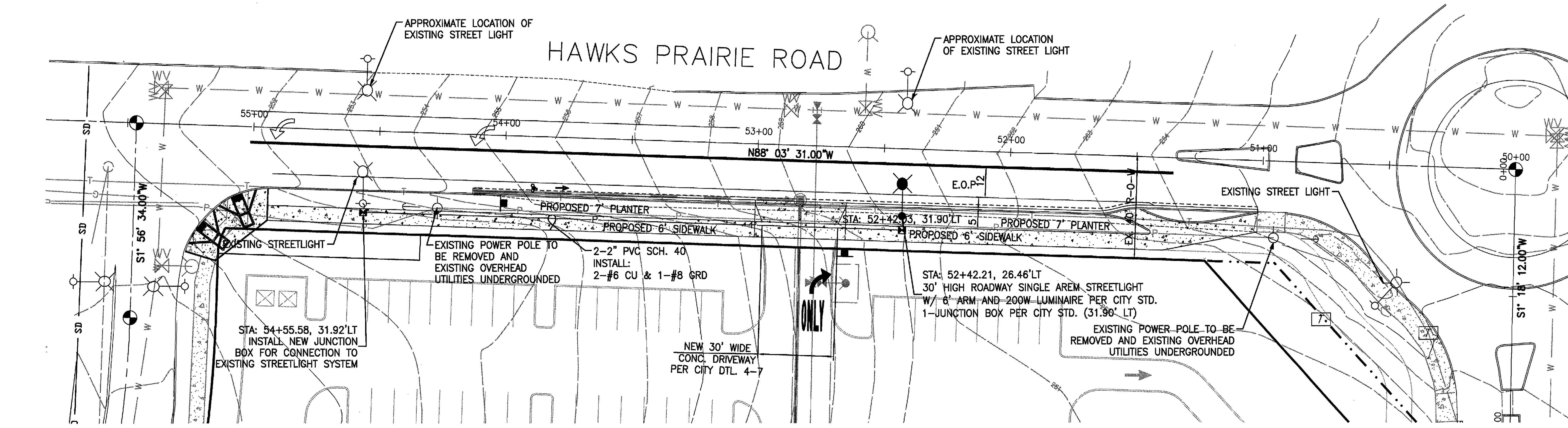
BRITTON PLAZA

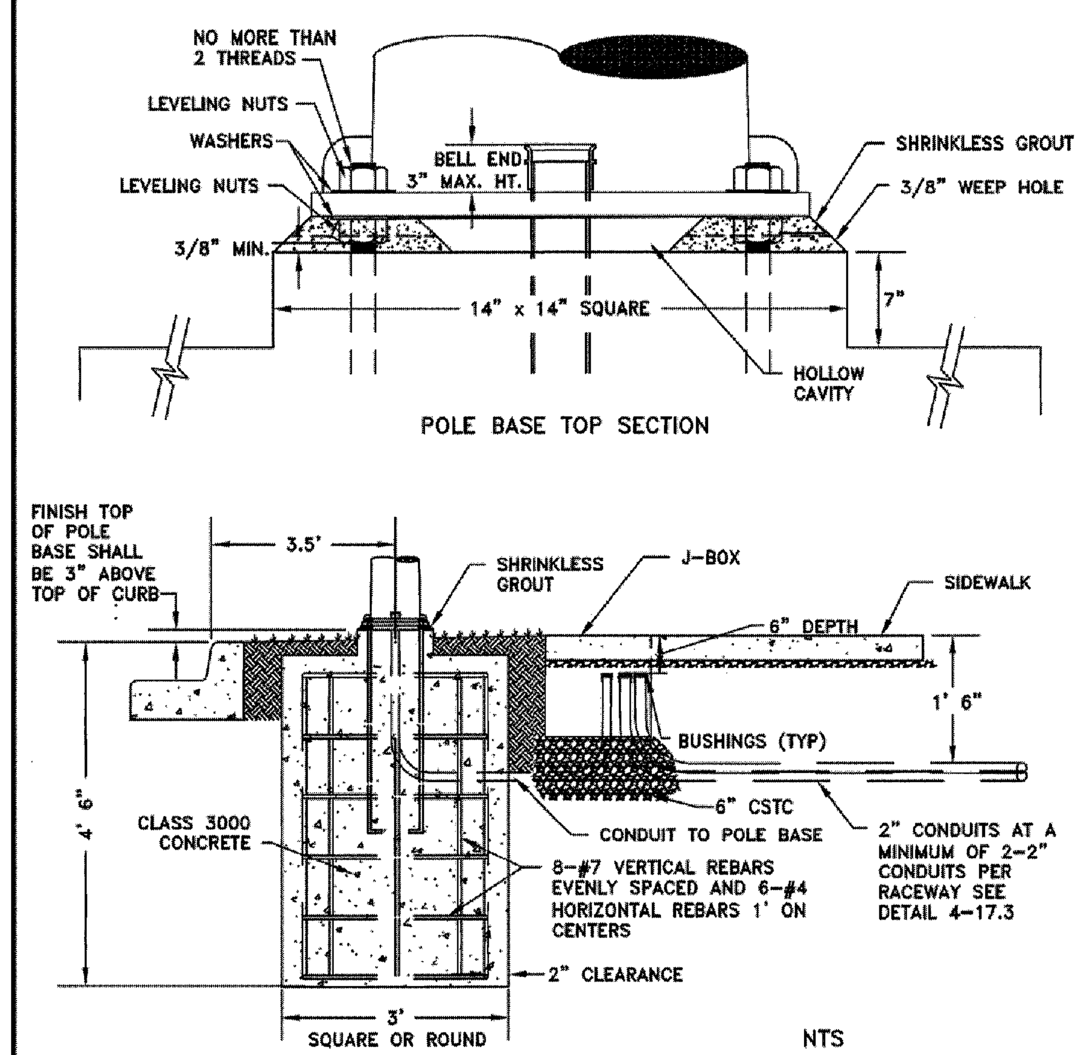
1"=30'

0 15 30 60

CITY OF LACEY GENERAL LIGHTING NOTES

1. ALL WORKMANSHIP, MATERIALS AND TESTING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, NATIONAL ELECTRICAL CODE AND CITY OF LACEY DEVELOPMENT GUIDELINES UNLESS OTHERWISE SPECIFIED BELOW. IN CASES OF CONFLICT THE MOST STRINGENT STANDARD SHALL APPLY. WHEN THE MOST STRINGENT STANDARD IS NOT CLEAR, THE CITY ENGINEER WILL MAKE THE DETERMINATION. THE ELECTRICAL CONTRACTOR SHALL BE FAMILIAR WITH ALL ABOVE STATED PUBLICATIONS AND GUIDELINES AS THEY WILL BE STRICTLY ENFORCED BY THE CITY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE STATE OF WASHINGTON, DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE "K" PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF LACEY SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
5. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
6. ELECTRICAL PERMITS AND INSPECTIONS ARE REQUIRED FOR ALL STREET LIGHTING INSTALLATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING SAID PERMITS PRIOR TO ANY TYPE OF ACTUAL CONSTRUCTION.
7. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF LACEY CONSTRUCTION AND ELECTRICAL INSPECTORS PRIOR TO THE START OF CONSTRUCTION.
8. PRIOR TO INSTALLATION OF ANY MATERIALS THE ELECTRICAL CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE CITY THREE COPIES OF MATERIAL CATALOG CUTS, SPECIFICATIONS, SHOP DRAWINGS AND/OR WIRING DIAGRAMS. ANY MATERIALS PURCHASED OR LABOR PERFORMED PRIOR TO SUCH APPROVAL SHALL BE AT THE CONTRACTOR'S RISK. MOUNTING HEIGHTS, ARM LENGTH, POWER SOURCE, LUMINAIRE TYPE AND BOLT PATTERNS SHALL FOLLOW CITY OF LACEY DEVELOPMENT GUIDELINES CHAPTER 4E.020. MODIFICATIONS OF ANY PORTION OF THE LIGHTING SYSTEM WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL BY THE CITY. SUBMITTALS SHALL INCLUDE PROJECT NAME, NAME OF ELECTRICAL CONTRACTOR, DATE AND VENDOR NAME.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
10. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING CHAPTER OF THE CITY OF LACEY DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS.
11. TEMPORARY EROSION CONTROL/WATER POLLUTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR LACEY. AT NO TIME WILL SILTS AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PROVISIONS HAVE BEEN DESIGNED.
12. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR MAINTAINING ALL LOCATE MARKS ONCE THE UTILITIES HAVE BEEN LOCATED.
13. A 500 VOLT MEGGER TEST WILL BE PERFORMED BY THE CITY ON EACH CIRCUIT BETWEEN CONDUCTOR AND GROUND PRIOR TO ACCEPTANCE OF THE LIGHTING SYSTEM. THE INSULATION RESISTANCE SHALL NOT BE LESS THAN 6 MEGAOHMS TO GROUND FOR RUNS OVER 2,500 FEET NOR LESS THAN 8 MEGAOHMS FOR RUNS UNDER 2,500 FEET. A FUNCTIONAL TEST WILL BE PERFORMED BY THE CITY IN WHICH IT IS DEMONSTRATED THAT EACH AND EVERY PART OF THE SYSTEM FUNCTIONS AS SPECIFIED OR INTENDED HEREIN. (WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION 8-20.3(11).
14. ALL LIGHTING POLES SHALL BE AS SPECIFIED IN CHAPTER 4E.020 OF THE DEVELOPMENT GUIDELINES. THE SONOTUBE FORM SHALL BE REMOVED TO BELOW GROUND LEVEL. POLE BASES SHALL BE GROUTED AND ALL LUMINAIRE HEADS SHALL BE PLUMB AND LEVEL.
15. CEMENT CONCRETE BASES SHALL FOLLOW CITY OF LACEY DEVELOPMENT GUIDELINES LUMINAIRE FOUNDATION DETAIL.
16. ANY MODIFICATION TO APPROVED LIGHTING PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ANY APPROVED MODIFICATIONS SHALL BE SHOWN ON A MYLAR ASBUILT SUPPLIED TO THE CITY AFTER THE LIGHTING INSTALLATION IS COMPLETED AND BEFORE FINAL ACCEPTANCE. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO ENSURE THESE AS-BUILTS ARE PROVIDED TO THE CITY.
17. PRIVATE UTILITIES REQUIRE A 10 FOOT "CLEAR ZONE" FROM THE STREET LIGHT TO THE PRIVATE UTILITY LOCATED ABOVE GROUND ON PRIVATE UTILITY POLES. THE "CLEAR ZONE" SEPARATION SHALL BE INCORPORATED INTO THE STREET LIGHTING DESIGN TO ASSURE THE REQUIRED SEPARATION IS PROVIDED.
18. A MAXIMUM OF THREE CIRCUITS SHALL BE ASSOCIATED PER CONDUIT. ALSO, A MAXIMUM OF SEVEN (7) #8 CONDUCTORS OR FIVE (5) #4 CONDUCTORS SHALL BE PERMITTED IN A 2 INCH CONDUIT. ADDITIONAL CONDUITS WILL BE REQUIRED FOR ADDITIONAL CONDUCTORS OVER THIS STANDARD. THE 2 INCH SPARE CONDUIT SHALL NOT BE UTILIZED FOR THIS APPLICATION IT IS RESERVED FOR CITY COMMUNICATIONS.
19. ON ROADS CLASSIFIED AS ARTERIALS, BOULEVARDS OR COLLECTORS, THE STREET LIGHTING SHALL BE SEPARATED INTO TWO CIRCUITS. THERE SHALL BE A SEPARATE CIRCUIT FOR THE RIGHT AND LEFT SIDE OF THE ROAD.





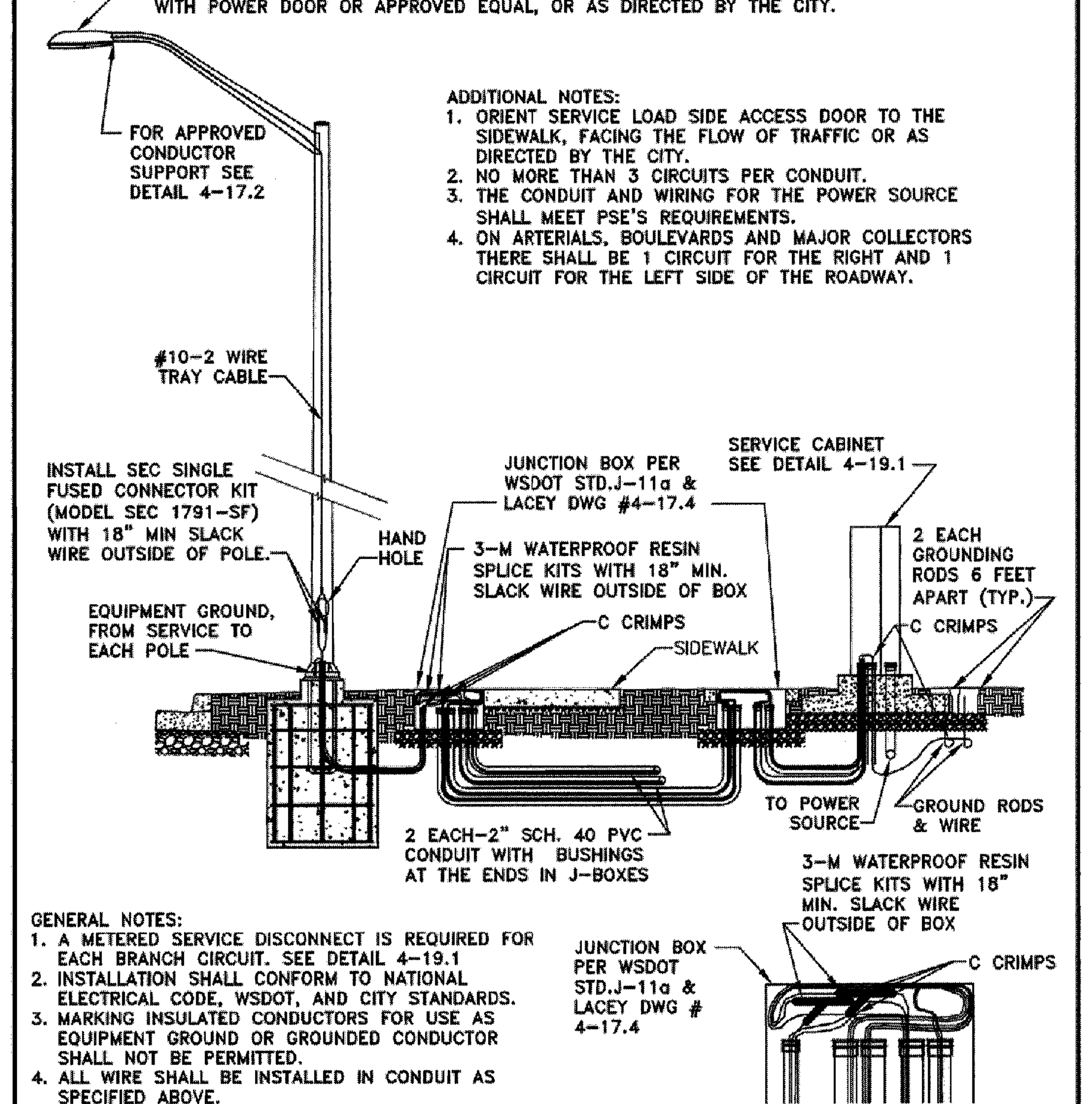
GENERAL NOTES:
1. THE FOUNDATION IS DESIGNED FOR 2000 PSF AVERAGE SOIL LATERAL BEARING PRESSURE.
2. BOLT PATTERN PER MANUFACTURER'S SPECIFICATIONS.
3. FOR DETAILS NOT SHOWN, USE MANUFACTURER'S SPECIFICATIONS AND DETAILS.
4. INSTALL EXPANSION JOINTS ON 3 SIDES OF J-BOX.
5. FOUNDATION HOLES SHALL BE AUGERED. IF HOLES ARE DUG, BACKFILL SHALL MEET WSDOT SECTION 8-20.

DG4-17.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
LUMINAIRE FOUNDATION FOR 30' & 40' POLES			
APPROVED [signature] CITY ENGINEER			DWG. NO. 4-17
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09

ALL LUMINAIRES SHALL BE GE FLAT GLASS COBRA HEAD (MDCL__S3M_2FM2) WITH POWER DOOR OR APPROVED EQUAL, OR AS DIRECTED BY THE CITY.

ADDITIONAL NOTES:
1. ORIENT SERVICE LOAD SIDE ACCESS DOOR TO THE SIDEWALK, FACING THE FLOW OF TRAFFIC OR AS DIRECTED BY THE CITY.
2. NO MORE THAN 3 CIRCUITS PER CONDUIT.
3. THE CONDUIT AND WIRING FOR THE POWER SOURCE SHALL MEET PSE'S REQUIREMENTS.
4. ON ARTERIALS, BOULEVARDS AND MAJOR COLLECTORS THERE SHALL BE 1 CIRCUIT FOR THE RIGHT AND 1 CIRCUIT FOR THE LEFT SIDE OF THE ROADWAY.

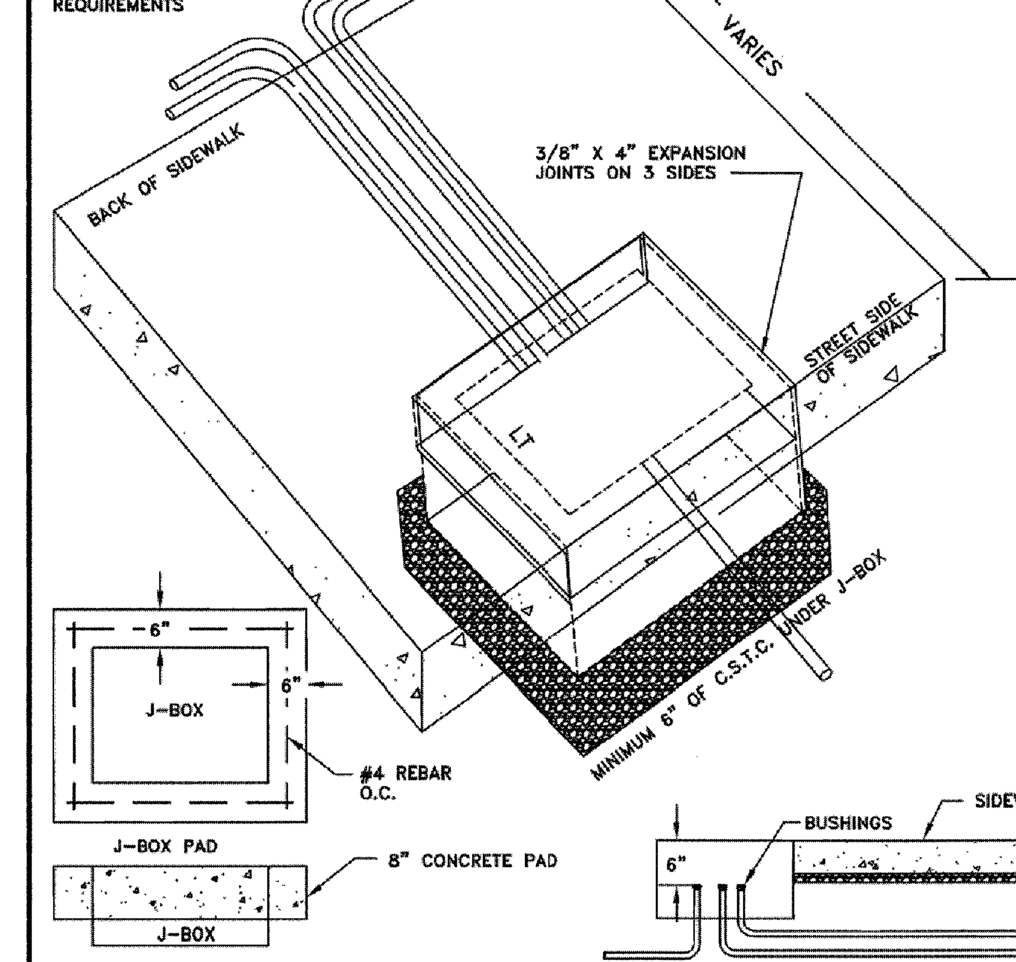


GENERAL NOTES:
1. A METERED SERVICE DISCONNECT IS REQUIRED FOR EACH BRANCH CIRCUIT. SEE DETAIL 4-19.1
2. INSTALLATION SHALL CONFORM TO NATIONAL ELECTRICAL CODE, WSDOT, AND CITY STANDARDS.
3. MARKING INSULATED CONDUCTORS FOR USE AS EQUIPMENT GROUND OR GROUNDED CONDUCTOR SHALL NOT BE PERMITTED.
4. ALL WIRE SHALL BE INSTALLED IN CONDUIT AS SPECIFIED ABOVE.
5. ALL SPLICES SHALL BE MADE IN A JUNCTION BOX. WIRE NUTS SHALL NOT BE ALLOWED. SPLICES SHALL BE CENTERED AND ENCASED IN 3M WATERPROOF RESIN SPLICE KITS TYPE 82-A1, 82-B1, OR CITY APPROVED EQUAL.
6. THE SERVICE DISCONNECT SHALL BE INSTALLED BEHIND THE SIDEWALK NEAR A PROPERTY LINE AND WHENEVER POSSIBLE IN AN OPEN SPACE. A J-BOX SHALL BE INSTALLED WITHIN 10' OF THE SERVICE DISCONNECT.
7. CURRENT CARRYING CONDUCTORS SHALL BE TYPE U.S.E. INSULATED, STRANDED, COPPER, MINIMUM #8 AWG. GROUND EQUIPMENT CONDUCTORS SHALL BE BARE STRANDED COPPER MINIMUM #8 AWG.

DG4-17.3.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
TYPICAL STREET LIGHT INSTALLATION			
APPROVED [signature] CITY ENGINEER			DWG. NO. 4-17.3
DES WHO	DWN WHO	CKD RAS	DATE 8/27/09

ALL CONDUITS SHALL BE 2" MINIMUM SCHEDULE 40 PVC OR AS DIRECTED BY THE CITY. SEE DETAIL 4-17.3 FOR CONDUIT REQUIREMENTS



GENERAL NOTES:
1. SEE W.S.D.O.T. STANDARD PLAN J-11a FOR J-BOX TYPE AND SIZE.
2. ALL LIDS SHALL BE STEEL AND MARKED WITH LT OR TS PER W.S.D.O.T. STANDARD PLAN J-11a.
3. IF NO SIDEWALK EXISTS, A CONCRETE PAD SHALL BE CONSTRUCTED 8" THICK, 6" WIDE, COMPLETELY SURROUNDING THE J-BOX WITH ONE #4 REBAR ON CENTER EACH SIDE AND TIED AT CORNERS.
4. CONDUIT RUNS SHALL NOT EXCEED 200 FEET BETWEEN JUNCTION BOXES.
5. JUNCTION BOX SHALL BE LOCATED WITHIN 10 FEET OF EACH LUMINAIRE POLE AND AT ROAD CROSSING.
6. A SPARE 2" CONDUIT SHALL BE REQUIRED ON ARTERIALS, COLLECTORS AND RESIDENTIAL STREETS.

DG4-17.4.DWG

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
J-BOX LOCATION WITH PLANTER STRIP			
APPROVED [signature] CITY ENGINEER			DWG. NO. 4-17.4
DES. WHO	DWN. WHO	CKD. MAH	DATE 8/27/09

CALL BEFORE YOU DIG

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VERTICAL DATUM
CITY OF LACEY NGVD '29

CITY OF LACEY VERTICAL BENCHMARK:

BM NO.1104
EL =268.63
8" CONC MON WITH 2" BRASS DISC LS# 29278
N: 646357.0, E: 72371.0

BASIS OF BEARINGS:

CITY OF LACEY GROUND SCALE COORDINATE SYSTEM

FOR THE CITY OF LACEY

BY: ______________ DATE: ________

PUBLIC WORKS REVIEWER

Plans Expire Two Years from Above Date

No.	Date	By	Ckd.	Appr.	Revision

S. 3, TWP. 18N, R. 1W, W.M. CITY OF LACEY, THURSTON COUNTY, WASHINGTON

Title: MARVIN ROAD AND HAWKS PRAIRIE ROAD ILLUMINATION PLAN, NOTES AND DETAILS FOR SOUTHBAY VILLAGE

For: BPCI
801 VALLEY AVENUE N.W.
PUYALLUP, WA 98371
(253) 922-3399

DANIEL K. BALMELLI, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER 25672 — 1/20/2012

Scale: Horizontal 1"=30' Vertical N/A

Designed CP
Drawn CP
Checked AS
Approved DKB
Date 2/15/11

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
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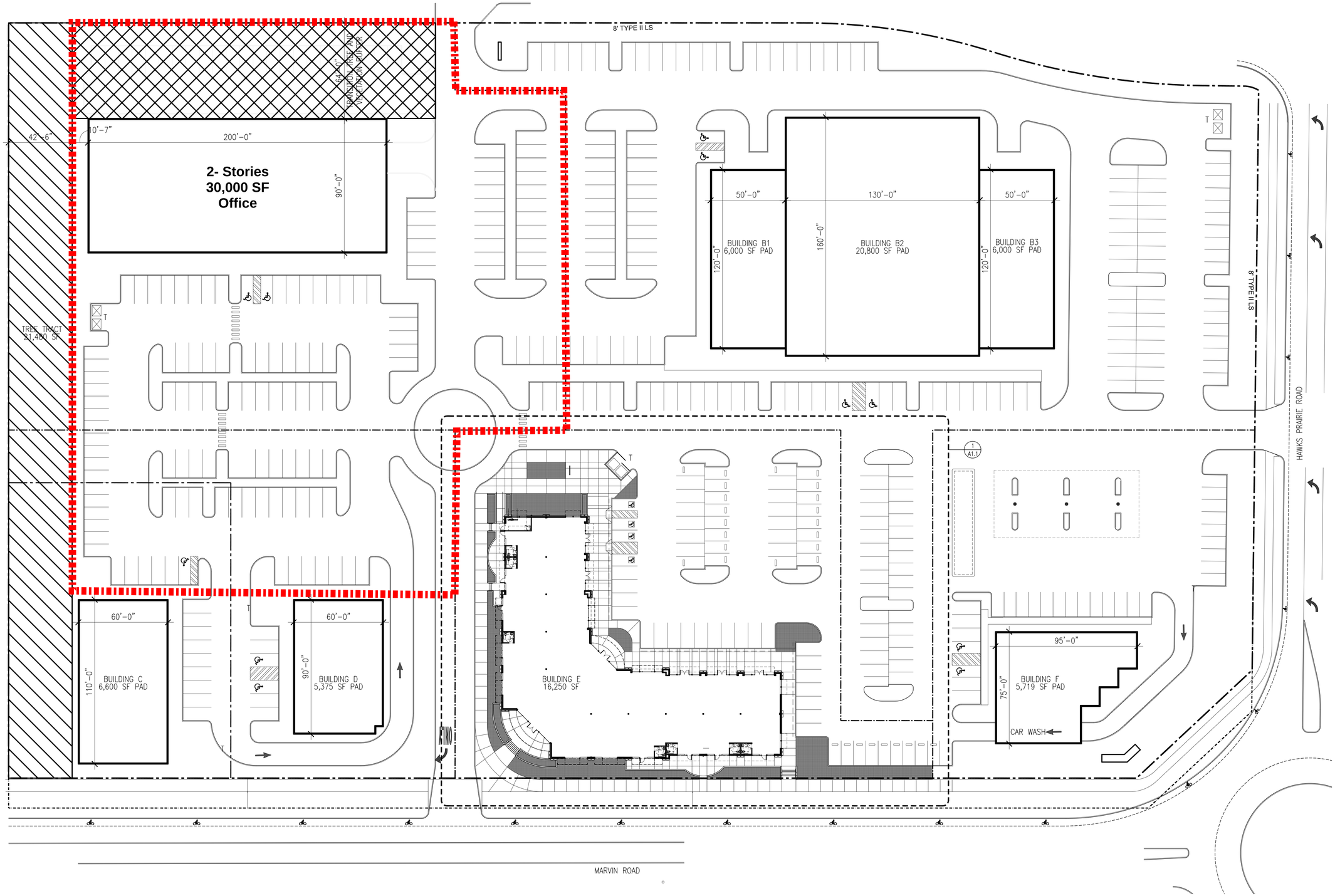
Job Number 15426

Sheet C26 of 26



NORTH

MASTER SITE PLAN

SCALE: 1" = 30'-0"

SYNTHESISPLLC
THE FUSION OF ARCHITECTURE DESIGN TECHNOLOGY & PEOPLE

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Bellevue, WA 98005
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Jeff and Jolene Holmes
SOUTH BAY
8120 61st Avenue NE
Olympia, WA 98516

REVISIONS

ISSUE NO.	DATE	ITEM
1	01 31 2012	PERMIT SUBMITTAL

PROFESSIONAL STAMP

PROJECT INFORMATION

SOUTHBAY VILLAGE

BUILDING E
7447 HAWKS PRAIRIE ROAD NE
LACEY, WASHINGTON

SHEET INFORMATION

RELEASE FOR: PROGRESS PRINTING
TITLE: MASTER SITE PLAN

DESIGNED BY:
DRAWN BY:
REVIEWED BY:
APPROVED BY:
DATE: 01 15 2012
SHEET NO: A1.0
PROJECT NO: 201111.01.001

www.synthesispllc.com

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