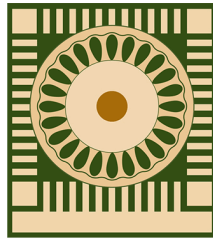


CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov



CITY OF
HAYWARD
HEART OF THE BAY

Agenda

Tuesday, July 24, 2018

7:00 PM

Council Chambers

City Council

Mayor Barbara Halliday
Mayor Pro Tempore Elisa Márquez
Council Member Francisco Zermeño
Council Member Marvin Peixoto
Council Member Al Mendall
Council Member Sara Lamnin
Council Member Mark Salinas

CITY COUNCIL MEETING**CALL TO ORDER Pledge of Allegiance: Mayor Halliday****ROLL CALL****CLOSED SESSION ANNOUNCEMENT****PUBLIC COMMENTS**

The Public Comment section provides an opportunity to address the City Council on items not listed on the agenda or Information Items. The Council welcomes your comments and requests that speakers present their remarks in a respectful manner, within established time limits, and focus on issues which directly affect the City or are within the jurisdiction of the City. As the Council is prohibited by State law from discussing items not listed on the agenda, your item will be taken under consideration and may be referred to staff.

ACTION ITEMS

The Council will permit comment as each item is called for the Consent Calendar, Public Hearings, and Legislative Business. In the case of the Consent Calendar, a specific item will need to be pulled by a Council Member in order for the Council to discuss the item or to permit public comment on the item. Please notify the City Clerk any time before the Consent Calendar is voted on by Council if you wish to speak on a Consent Item.

CONSENT

1. [MIN 18-099](#) Minutes of the Special Joint City Council/Hayward Housing Authority Board Meeting on July 10, 2018

Attachments: [Attachment I Draft Minutes of 07/10/2018](#)

2. [CONS 18-463](#) Resolution to Authorize the City Manager, on Behalf of the Hayward Area Shoreline Planning Agency (HASPA), to Accept an Adaptation Planning Grant from the California Department of Transportation (Caltrans) for \$509,000, and to Negotiate and Execute a Memorandum of Understanding with the Hayward Area Recreation and Park District (HARD) and East Bay Regional Park District (EBRPD), to Complete the Hayward Regional Shoreline Master Plan

Attachments: [Attachment I Staff Report](#)
[Attachment II Resolution](#)
[Attachment III Grant Application](#)
[Attachment IV Grant Award Letter](#)

3. [CONS 18-470](#) PG&E's Rule 20A Program Audit - Amendment to Professional Services Agreement with Mikkelsen & Associates, LLC.
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
4. [CONS 18-494](#) Advanced Metering Infrastructure (AMI) Project: Authorization to Execute an Amendment to the AMI System Material Supply Contract to Purchase Additional Water Meters and Related Equipment
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
5. [CONS 18-499](#) Municipal Parking Lot No. 2 Improvement Project - Rejection of Lone Bid
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
 [Attachment III Location Map](#)
6. [CONS 18-501](#) Sulphur Creek Mitigation Design Project at Hayward Executive Airport - Authorization to Execute a Professional Services Agreement with Kimley-Horn and Associates, Inc., and Acceptance of FAA Grant for Design
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
7. [CONS 18-506](#) Renewal of Rental Housing Grant Subsidy Agreement with Abode Services
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
8. [CONS 18-518](#) Abatement and Deconstruction for Route 238 Bypass Property Project - Approval of Plans and Specifications and Call for Bids
- Attachments:** [Attachment I Staff Report](#)
 [Attachment II Resolution](#)

9. [CONS 18-537](#) Authorization for the City Manager to Negotiate and Execute a Professional Services Agreement with Contra Costa Electric for the Completion of a City-Wide Fiber Asset Audit

Attachments: [Attachment I Staff Report](#)
[Attachment II Resolution](#)
[Attachment III Fiber-Optic Master Plan](#)
[Attachment IV Fiber Loop Map](#)

10. [CONS 18-545](#) Adoption of a Resolution Approving Updates to the FY19 Master Fee Schedule

Attachments: [Attachment I Staff Report](#)
[Attachment II Resolution](#)
[Attachment III Proposed updates](#)

11. [CONS 18-547](#) Authorization for the City Manager to Negotiate and Execute a Memorandum of Understanding with the Chabot-Las Positas Community College District to Establish the Basis for a Ground Lease, Design, and Construction of the Fire Training Center

Attachments: [Attachment I Staff Report](#)
[Attachment II Resolution](#)
[Attachment III Site Plan](#)

PUBLIC HEARING

12. [PH 18-064](#) Application to Amend Chapter 10, Article 1(Zoning Ordinance), Sections 10-1.845.j (5) and (6); and 10-1.1045.j (5) and (6) (Minimum Design and Performance Standards) of the Hayward Municipal Code Related to Drive-Through Restaurants and Drive-Through Coffee/Esspresso Shops in the City of Hayward by United Growth Capital Management, LLC. (Applicant), Requiring the Introduction of an Ordinance and the Adoption of a Resolution Approving Zoning Text Amendment Application No. 201802227 (Report from Development Services Director Simpson)

Attachments: [Attachment I Staff Report](#)
 [Attachment II Ordinance](#)
 [Attachment III Resolution](#)
 [Attachment IV April 2, 2018 CEDC Meeting Minutes](#)
 [Attachment V Map of Drive-Through Restaurants](#)
 [Attachment VI Map of Half-Mile Buffer from Freeways](#)

LEGISLATIVE BUSINESS

13. [LB 18-043](#) Adoption of Resolution Approving an Amendment to the City of Hayward Salary Plan for Fiscal Year 2019 (Report from Director of Human Resources Collins)

Attachments: [Attachment I Staff Report](#)
 [Attachment II Resolution](#)
 [Attachment III FY 2019 Salary Plan](#)

CITY MANAGER'S COMMENTS

Oral reports from the City Manager on upcoming activities, events, or other items of general interest to Council and the Public.

COUNCIL REPORTS, REFERRALS, AND FUTURE AGENDA ITEMS

Oral reports from Council Members on their activities, referrals to staff, and suggestions for future agenda items.

ADJOURNMENT

NEXT SPECIAL MEETING, September 11, 2018**PUBLIC COMMENT RULES**

Any member of the public desiring to address the Council shall limit her/his address to three (3) minutes unless less or further time has been granted by the Presiding Officer or in accordance with the section under Public Hearings. The Presiding Officer has the discretion to shorten or lengthen the maximum time members may speak. Speakers will be asked for their name before speaking and are expected to honor the allotted time. Speaker Cards are available from the City Clerk at the meeting.

PLEASE TAKE NOTICE

That if you file a lawsuit challenging any final decision on any public hearing or legislative business item listed in this agenda, the issues in the lawsuit may be limited to the issues that were raised at the City's public hearing or presented in writing to the City Clerk at or before the public hearing.

PLEASE TAKE FURTHER NOTICE

That the City Council adopted Resolution No. 87-181 C.S., which imposes the 90-day deadline set forth in Code of Civil Procedure section 1094.6 for filing of any lawsuit challenging final action on an agenda item which is subject to Code of Civil Procedure section 1094.5.

****Materials related to an item on the agenda submitted to the Council after distribution of the agenda packet are available for public inspection in the City Clerk's Office, City Hall, 777 B Street, 4th Floor, Hayward, during normal business hours. An online version of this agenda and staff reports are available on the City's website. Written comments submitted to the Council in connection with agenda items will be posted on the City's website. All Council Meetings are broadcast simultaneously on the website and on Cable Channel 15, KHRT. ****

Assistance will be provided to those requiring accommodations for disabilities in compliance with the Americans with Disabilities Act of 1990. Interested persons must request the accommodation at least 48 hours in advance of the meeting by contacting the City Clerk at (510) 583-4400 or TDD (510) 247-3340.

Assistance will be provided to those requiring language assistance. To ensure that interpreters are available at the meeting, interested persons must request the accommodation at least 48 hours in advance of the meeting by contacting the City Clerk at (510) 583-4400.



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: MIN 18-099

DATE: July 24, 2018

TO: Mayor and City Council

FROM: City Clerk

SUBJECT

Minutes of the Special Joint City Council/Hayward Housing Authority Board Meeting on July 10, 2018

RECOMMENDATION

That the City Council approves the minutes of the Special Joint City Council/Hayward Housing Authority Board meeting on July 10, 2018.

SUMMARY

A special meeting of the City Council/Hayward Housing Authority Board was held on July 10, 2018.

ATTACHMENTS

Attachment I Draft Special Minutes of 07/10/2018



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

The Special Joint Meeting of the Hayward City Council/Hayward Housing Authority Board was called to order by Mayor/Chair Halliday at 7:00 p.m., followed by the Pledge of Allegiance led by Council/HHA Member Márquez.

ROLL CALL

Present: COUNCIL/HHA MEMBERS Zermeño, Márquez, Mendall, Peixoto, Lamnin,
Salinas
MAYOR/CHAIR Halliday
Absent: None

CLOSED SESSION ANNOUNCEMENT

City Attorney Lawson announced the City Council convened in closed session at 5:30 p.m., concerning two items: 1) conference with labor negotiators pursuant to Government Code 54957.6 regarding all groups, 2) conference with legal counsel pursuant to Government Code 54956.9 regarding Stoddard-Nunez v. City of Hayward, et al., 4:13-cv-04490-KAW, U.S. District Court, N.D. CA., and noted there was no reportable action related to the items.

PRESENTATION

Mayor Halliday read a Proclamation for motorized vehicles in Hayward expressing concern over the health, safety, and environmental issues associated with excessive car idling, and encouraged staff and community members to practice no engine idling for the benefit of the City of Hayward. Mr. Aneesh Rna, Public Information Officer of Bay Area Air Quality Management District (Community Health Protection Office) accepted the proclamation.

PUBLIC COMMENTS

The following individuals spoke about the City's process for awarding cannabis dispensary licenses, spoke about the Hayward Wellness Center, and requested an opportunity for the businesses that were rejected to appeal the decision.

Mr. Al Antonini
Ms. Gina Antonini, Hayward Wellness Center Community Relations Director
Mr. Stephen Cassidy

Ms. Alicia Lawrence, Hayward resident and Hayward Collective member, thanked the Council for enacting tenant protections and noted that "Just cause" protections allow tenants to have a process.

Mr. Charlie Peters, Clean Air Performance Professionals representative, spoke about car emissions and submitted a related document.

Consent Item No. 5 was removed from the Consent Calendar for discussion.

CONSENT

1. Minutes of the City Council Meeting on June 26, 2018 **MIN 18-095**

It was moved by Council Member Peixoto, seconded by Council Member Márquez, and carried unanimously, to approve the minutes of the City Council Meeting on June 26, 2018, with a correction.

2. Resignation of Mr. Stephen Ochoa from the Keep Hayward Clean and Green Task Force **CONS 18-465**

Staff report submitted by City Clerk Lens, dated July 10, 2018, was filed.

It was moved by Council Member Peixoto, seconded by Council Member Márquez, and carried unanimously, to adopt the following:

Resolution 18-144, "Resolution Accepting the Resignation of Stephan Ochoa from the Keep Hayward Clean and Green Task Force"

3. I-880/SR-92 Reliever Route: Phase 1 Project - Amendment to Construction Agreement with O.C. Jones and Sons, Inc. (O.C. Jones) **CONS 18-431**

Staff report submitted by Interim Public Works Director Ameri, dated July 10, 2018, was filed.

It was moved by Council Member Peixoto, seconded by Council Member Márquez, and carried unanimously, to adopt the following:

Resolution 18-145, " Resolution Authorizing an Increase in the Construction Contract with O.C. Jones and Sons, Inc., for Construction Services of the I-880/SR-92 Reliever Route – Phase 1 Project, Project 05197"

4. Authorization to Execute a Professional Services Agreement with HdL Companies for the Purchase of Business Tax and Licensing Software **CONS 18-445**

Staff report submitted by Finance Director Claussen, dated July 10, 2018, was filed.



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

It was moved by Council Member Peixoto, seconded by Council Member Márquez, and carried unanimously, to adopt the following:

Resolution 18-146, "Resolution Authorizing the City Manager to Execute a Professional Services Agreement with HDL Companies for the Purchase and Licensing of a Business Tax and Licensing Software"

5. Approval of a Resolution in Support of HR 2358 - The Chinese American World War II Veterans Congressional Gold Medal Act **CONS 18-462**

Staff report submitted by Assistant to the City Manager Korth and Management Analyst II James, dated July 10, 2018, was filed.

Mayor Halliday noted the resolution was consistent with the principles in the Hayward Commitment for an Inclusive, Equitable, and Compassionate Community.

Mayor Halliday opened the public comment section at 7:24 p.m.

Mr. Hal Gin, Chabot-Las Positas Community College District Board of Trustees member and Alameda County Planning Commission member, urged support for the proposed resolution.

Mayor Halliday closed the public comment section at 7:27 p.m.

It was moved by Mayor Halliday, seconded by Council Members Mendall and Zermeño, and carried unanimously, to adopt the following:

Resolution 18-149, "Resolution in Support of HR 2358 – The Chinese American World War II Veterans Congressional Gold Medal Act"

6. Approval of Amendments to the Tennyson Gardens Apartments Regulatory Agreement **CONS 18-468**

Staff report submitted by Assistant City Manager Hurtado, dated July 10, 2018, was filed.

It was moved by Council/HHA Member Peixoto, seconded by Council/HHA Member Márquez, and carried unanimously, to adopt the following:

Resolution 18-147, "Resolution Authorizing an Amendment and Restatement of That Certain First Amended and Restated

Regulatory Agreement and Declaration of Restrictive Covenants and Related Approvals for Tennyson Gardens Apartments”

Hayward Housing Authority Resolution 18-02, “Resolution Authorizing an Amendment and Restatement of That Certain First Amendment and Restated Regulatory Agreement and Declaration of Restrictive Covenants and Related Approvals for Tennyson Gardens Apartments”

7. Authorization for the City Manager to Accept and Appropriate up to \$100,000 from the Fairview Fire Protection District for Special Projects **CONS 18-482**

Staff report submitted by Fire Chief Contreras, dated July 10, 2018, was filed.

It was moved by Council Member Peixoto, seconded by Council Member Márquez, and carried unanimously, to adopt the following:

Resolution 18-148, “Resolution Authorizing the City Manager to Accept and Appropriate Up to \$100,000 from the Fairview Fire Protection District to the Local Grants Fund for Special Projects Between June 1, 2018 and June 30, 2019”

WORK SESSION

8. Heritage Plaza, 21st Century Library - Overview and Refresher of the Heritage Plaza Restoration and Construction Project Plans and Specifications (Report from Interim Library Director Light) **WS 18-027**

Staff report submitted by Assistant City Manager Hurtado, dated July 10, 2018, was filed.

City Manager McAdoo announced that Library Director Reinhart had resigned and Ms. Jane Light was serving as Interim Library Director.

City Manager McAdoo disclosed she was going to participate in the work session discussion as the item did not represent a conflict of interest related to her property.

Council Member Márquez disclosed there was no conflict of interest related to the work session and her family business and could participate in the work session discussion.

Interim Library Director Light announced the City was hosting a special event to bid a farewell to the old Main Library building on July 14, 2018, and invited all to come.

Interim Library Director Light introduced Mr. Christopher Noll with Noll & Tam Architects who provided an overview of the Hayward Library and Community Learning Center



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

Heritage Plaza. Ms. Manuela King with rhaa Landscape Architects provided a presentation about the Heritage Plaza.

Discussion ensued among Council Members and City staff regarding: the Heritage Plaza restoration, underground rainwater catchment, historic features, bathrooms, historic representation for the plaza and Mission Boulevard, and programming plans for the plaza.

Council Members offered various suggestions: consider a bust of Don Guillermo Castro and a statue of missionary Junipero Serra; incorporate poetry into the park and include input from the City's poet laureate, Bruce Roberts, and the Hayward Arts Council; consider adding a trophy case to display environmental awards; consider infrastructure for an outdoor sound system; consider pedestals to display diverse groups that are representative of the city; have the Library Commission be an active voice in determining the historical components of the plaza; engage the Hayward Historical Society in the discussion about historic features for the plaza and make sure the work is reflective of Hayward's history and events that have occurred in the community during the last fifteen to twenty years; consider panels to display performances/contests curated by emerging events in the community; consider an electronic kiosk to display Hayward events and a timeline of Hayward's history; and as the historical representation for the plaza is considered, be mindful of overrepresentation of the missionary aspect of history and include in the conversation the Ethnic Studies Department at California State University East Bay.

Mayor Halliday opened the public comment section at 8:15 p.m.

Ms. Alicia Lawrence, Hayward resident, suggested to contextualize the missionary aspect of the history in the plaza with the presence of statues and offer more presence to the history of the Ohlone people.

Mayor Halliday closed the public comments section at 8:17 p.m.

PUBLIC HEARING

Council Member Márquez disclosed she would be recusing herself from discussing and voting on Public Hearing Item No. 9 due to the financial impact on her family's establishment and left the Council chambers

Council Member Salinas disclosed he had to recuse himself from participating and voting on Item No. 9 due to his association with the Kid's Breakfast Club and left the Council Chambers.

9. Resolutions of Formation Establishing the Downtown Hayward Community Benefit District and Appropriation of Funds (Report from City Manager McAdoo) **PH 18-063**

Staff report submitted by Management Analyst II Stefanski and New City America Consultant, dated July 10, 2018, was filed.

City Manager McAdoo announced the report and introduced Management Analyst II Stefanski who provided a synopsis of the report. Mr. Stefanski noted that upon closing of the public hearing, the City Clerk, Consultant Mandri, and he would publicly open the ballots, tabulate them and return to Council Chambers with the results to report to the City Council.

Mayor Halliday opened the public hearing at 8:31 p.m.

Mr. Gregg Schluntz, Chair of Trustees of the First United Methodist Church, urged the City to proceed with caution noting the importance to have factual return on investment such as high-speed internet and a power system, and added the proposal was not a solution for homelessness.

Mr. Zachariah Oquenda, Hayward resident, shared concerns with negative impacts that business improvement districts could have on vulnerable members of the community, and asked the City to be thoughtful implementing the proposed district.

Mayor Halliday closed the public hearing at 8:41 p.m.

Mayor Halliday noted that while the City Clerk and staff counted the submitted ballots, the City Council would continue with the proceedings of the meeting and moved to Public Hearing No. 10.

Mayor Halliday restarted the hearing at 10:43 p.m.

City staff announced the results of the votes noting that 88.2 percent were in support of forming the Downtown Hayward Community Benefit District and 11.8 percent were in opposition. It was noted that the results of the votes without the City's votes was 77 percent to 23 percent.

Council Member Zermeño offered a motion per staff's recommendation.

Council Member Mendall seconded the motion.

Council Member Lamnin shared concerns with the formation but respected the will of the voters, and urged the City to be consistent with the City's Commitment and pay attention to things that could be done not to overwhelmingly raise rents in the downtown and to monitor the rollout of the management company.

Mayor Halliday disclosed she is a member of First United Methodist Church and did not have a conflict requiring her to recuse herself from voting as she does not derive any financial



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

gain from the church, and noted she was glad the element for hardship for non-profit and religious organizations was included.

It was moved by Council Member Zermeño, seconded by Council Member Mendall, and carried with the following vote, to adopt the resolutions:

AYES: COUNCIL MEMBER Zermeño, Mendall, Peixoto, Lamnin
MAYOR Halliday
NOES: NONE
ABSENT: COUNCIL MEMBER Márquez, Salinas
ABSTAIN: NONE

Resolution 18-151, "Resolution of Formation Establishing the Downtown Hayward Community Benefit District (CBD) and Levying Assessment Therewith"

Resolution 18-152, "Resolution Appropriating \$163,845 from the General Fund (Fund 100) for the City's Annual Assessment Under the Downtown Hayward Community Benefit District"

Council Members Márquez and Salinas returned to the Council Chambers.

Council Member Lamnin disclosed she had to recuse herself from discussing and voting on Public Hearing Item No. 10 due to the proximity of the project to her property, and left the Council Chambers.

10. Proposal to Subdivide a 5.1-Acre Site into 45 Parcels to Allow the Construction of 41 Detached Single-Family Residences with Common Open Space Areas and Related Site Improvements at 22626 4th Street (APNs 427-0036-033-05, 427-0036-033-06, 427-0036-033-07, 427-0036-055-19, & 427-0036-085-01) by Tony Dutra (Applicant) on behalf of Dutra Enterprises (Owner), Requiring Introduction of an Ordinance and Adoption of a Resolution to Approve a Vesting Tentative Tract Map, Planned Development (PD) Rezone, Site Plan Review, and Adopt a Mitigated Negative Declaration (MND) with Mitigation Monitoring and Reporting Program (MMRP) Application No. 201704074 (Report from Interim Development Services Director Bristow) **PH 18-054**

Staff report submitted by Associate Planner Lee, dated July 10, 2018, was filed.

City Manager McAdoo introduced the new Development Services Director Laura Simpson.

Development Services Director Simpson announced the report and introduced Associate Planner Lee. Associate Planner Lee noted that a copy of a letter submitted by Better Neighborhoods Inc., had been distributed to the City Council and was entered into the record for Council's consideration.

Associate Planner Lee provided a synopsis of the staff report.

Discussion ensued among Council Members and City staff regarding: the backyard setback of the units that abut the creek; trees included in the project; \$50,000 donation by Dutra Enterprises, Inc., for the restoration of the San Lorenzo Creek; the traffic on 4th Street and B Street; the San Lorenzo Creek, its maintenance and protection; universal design options for the units on the first floor; process for deciding between in-lieu fees or building onsite; and width of garages facing the street.

Mayor Halliday opened the public hearing at 9:15 p.m.

Ms. Joan Butler, Hayward resident, expressed support for the proposed development and for fences behind the properties.

Mr. Bruce King, Friends of San Lorenzo Creek member and Castro Valley resident, did not support the housing development without inclusion of resolutions that improve the San Lorenzo Creek as noted in Attachment VI of the staff report.

Ms. Marlina Selva, Hayward resident, opposed staff's recommendation and urged protection of the natural resource, the creek.

Mr. Jeff Carr, Hayward resident, expressed concern about the impact the project will have on neighboring areas and Chestnut Street, and offered he wanted to contribute to the discussion.

Mr. Charles Pisano, Friend of San Lorenzo Creek member and Hayward resident, favored a compromise with mitigations for the project and the creek.

Ms. Charlotte Irwin, Hayward resident, favored protecting the creek, noted the property is contaminated, wanted the well and historical pieces conserved, and supported keeping trees that were listed to be removed.

Ms. Linda Bennett, Hayward resident, acknowledged the Police Department and neighbors for helping the creek, and opposed the proposed development.

Ms. Melinda Selva, Hayward resident, opposed the proposed project and advocated for protecting the creek and the living species in the area.

Ms. Alicia Lawrence, Hayward resident, noted the proposed project was a missed opportunity to firm up affordable housing stock.



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

Mr. John Dutra, applicant, noted that in response to the concerns with the San Lorenzo Creek, Dutra Enterprises Inc., would donate \$50,000 for the restoration of the creek; and added that the fence lines were there and while he did not think they should be removed he was flexible to any changes; and responded to questions posed by Council Members.

Council Members Márquez and Zermeño disclosed having individually met with the Dutra family.

Mr. Tony Dutra, CEO of Dutra Enterprise, in response to Council Member Zermeno's suggestion, agreed to consider, if available, acquiring the vacant lot at 4th Street and A Street for possible retail space.

Mayor Halliday closed the public hearing at 10:05 p.m.

Council Member Zermeño offered a motion per staff's recommendation.

Council Member Mendall seconded the motion.

Council Member Mendall offered a friendly amendment to the motion so that the portion, along the San Lorenzo Creek, of rear yard fences that encroach within the 20-foot setback area be removed as part of the development.

Council Member Zermeño accepted the friendly amendment.

Discussion ensued about the creek improvement area; fences behind the property; the homeowner's association's responsibility for the fences after the construction; the restoration of the creek and a partnership among the City, Friends of San Lorenzo Creek, and Alameda County Flood Control and Water Conservation District.

Council Members were in general agreement with the proposed development. It was noted that the project had a commitment to building affordable housing as more housing was needed in the area; the development would alleviate concerns with a vacant lot; the proposal was one of the last significant properties grandfathered under the old inclusionary housing provisions; the Dutra family had a reputation building in Hayward and understood the importance of building onsite; the developer had agreed to reach out to the neighbors and had responded to the concerns with the San Lorenzo Creek by donating \$50,000 towards the restoration of the San Lorenzo Creek; and the developer could coordinate with the City and the Alameda County Flood Control and Water Conservation District to develop a creek restoration and maintenance plan.

Council members thanked all interested parties for the input provided and for contributing to protecting the natural resource, San Lorenzo Creek.

It was confirmed that the motion included that the applicant's \$50,000 donation would be included as a condition of approval for the restoration of the San Lorenzo Creek.

It was moved by Council Member Zermeño, seconded by Council Member Mendall, and carried with the following vote, to adopt the resolution and introduce the ordinance including the friendly amendment:

AYES: COUNCIL MEMBER Zermeño, Márquez, Mendall, Peixoto, Salinas
MAYOR Halliday
NOES: NONE
ABSENT: COUNCIL MEMBER Lamnin
ABSTAIN: NONE

Introduction Ordinance 18-_, "An Ordinance Amending Chapter 10, Article 1 (Zoning Ordinance) of the Hayward Municipal Code by Rezoning Certain Property to Planned Development District in Connection with Zone Change and Vesting Tentative Map Application No. 201704077 to Accommodate 41-Single Family Dwellings at 22626 4th Street"

Resolution 18-150, "Resolution Adopting the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program and Approving the Planned Development Rezone with Tentative Tract Map and Site Plan Review Pertaining to Construction of 41 New Single-Family Residences at 22626 4th Street"

Council Member Lamnin returned to the Council Chambers at 10:42 p.m.

Mayor called for a recess at 10:51 p.m., and reconvened the meeting at 10:54 p.m.

11. Proposal to Construct a Single-Family Residence on a Vacant 0.25-Acre Hillside Lot Located at 26620 Call Avenue (APN 081D-1665-026-00) by Somnadh Allu (Applicant/Owner), Requiring Adoption of a Resolution to Approve a Site Plan Review with Grading Permit and Adopt a Mitigated Negative Declaration (MND) with Mitigation Monitoring and Reporting Program (MMRP) Application No. 201703214 (Report from Interim Development Services Director Bristow) **PH 18-056**

Staff report submitted by Interim Development Services Director Bristow, dated July 10, 2018, was filed.

Associate Planner Lee provided a synopsis of the report.

There being no public comments, Mayor Halliday opened and closed the public hearing at 10:57 p.m.



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

Mayor Halliday expressed concern with unresolved issues in the area and hoped for a resolution in partnership with the community.

It was moved by Council Member Mendall, seconded simultaneously by Council Members Peixoto and Márquez, and carried unanimously, to adopt the following:

Resolution 18-153, "Resolution Adopting the Mitigated Negative Declaration and the Mitigation and Report Program and Approving the Site Plan Review with Grading Permit Pertaining to Construction of a New Single-Family Residence at 26620 Call Avenue"

LEGISLATIVE BUSINESS

12. Review of Polling and Direction on Potential November 2018 Ballot Measures (Report from City Manager McAdoo) **LB 18-041**

Staff report submitted by Communications and Media Relations Officer Finnie, dated July 10, 2018, was filed.

City Manager McAdoo announced the report and introduced Communications and Media Relations Officer Finnie who provided a synopsis of the report.

Mr. Bryan Godbe with Godbe Research presented the results of the quantitative survey and explained the methodology used.

City Manager McAdoo noted staff was recommending placing two measures on the November 2018 ballot: 1) increase the Transient Occupancy Tax (TOT) from 8.5 percent to 12 percent; and 2) increase the Real Property Transfer Tax (RPTT) from \$4.50 per \$1,000 of property value to \$8.50 per \$1,000 of property value; and requested direction on the ballot questions.

Discussion ensued among Council Members, City staff, and Mr. Bryan Godbe regarding the budget strategic recommendations from October 2017; the gubernatorial November election and survey results; impact to the City should the ballot measures fail to pass; TOT language and Airbnb short term rental; sunset date for the ballot measures; demographics of the respondents and the responses; inventory of existing bonds/taxes that are on property owner bills; and setting the tax rate.

There being no public comments, Mayor Halliday opened and closed the public hearing at 11:34 p.m.

Council Member Márquez offered a motion recommending placing the Transient Occupancy Tax (TOT) at a rate of 12 percent and the Real Property Transfer Tax (RPTT) at \$8.50 per \$1,000 of property value.

Council Member Mendall seconded the motion.

Council Members noted the ballot measures were needed to balance the budget and continue to provide existing services; and the Council, by placing the measures on the November ballot, would give the Hayward voters the choice to decide about the proposed taxes.

Council Member Salinas indicated he would not be supporting the motion because he was concerned about the proposed ballot measures and noted he was not sure the measures were the solution to balancing the City's budget.

It was moved by Council Member Márquez, seconded by Council Member Mendall, and carried with the following vote, to adopt the following:

AYES:	COUNCIL MEMBERS Zermeño, Márquez, Mendall, Peixoto, Lamnin MAYOR Halliday
NOES:	COUNCIL MEMBER Salinas
ABSENT:	NONE
ABSTAIN:	NONE

13. Designation of Voting Delegates and Alternates for the League of California Cities 2018 Annual Business Meeting (Report from City Clerk Lens) **LB 18-035**

Staff report submitted by City Clerk Lens, dated July 10, 2018, was filed.

City Clerk Lens provided a synopsis of the report.

There being no public comments, Mayor Halliday opened the public hearing at 12:04 a.m.

Council Member Márquez offered a motion per staff's recommendation. Council Member Zermeño seconded the motion.

Council Member Márquez noted she serves as the City's delegate to the League of California Cities East Bay Division but was unable to attend the 2018 business meeting due to a work conflict, and was committed to attending the business meeting next year.

It was moved by Council Member Márquez, seconded by Council Member Zermeño, and carried unanimously, to adopt the following:



**MINUTES OF THE SPECIAL JOINT CITY COUNCIL/HAYWARD HOUSING
AUTHORITY MEETING
Council Chambers
777 B Street, Hayward, CA 94541
Tuesday, July 10, 2018, 7:00 p.m.**

Resolution 18-154, "A Resolution Designating a Voting Delegate
as Hayward's Representative to the League of California Cities
2018 Annual Conference"

INFORMATION ITEMS

14. Six-month Status Update on the Implementation of the Three Council Strategic Initiatives: Complete Communities, Complete Streets, and the Tennyson Corridor **RPT 18-121**

Staff report submitted by Assistant City Manager Hurtado, dated July 3, 2018, was filed.

The item is informational only.

CITY MANAGER'S COMMENTS

There were none.

COUNCIL REPORTS, REFERRALS, AND FUTURE AGENDA ITEMS

There were none.

ADJOURNMENT

Mayor Halliday adjourned the meeting at 12:10 a.m., in gratitude for the rescue of the twelve boys and their soccer coach who were trapped in a cave in Thailand, and in honor and memory of Mr. Don Bessy and Mr. Charles Snipes.

Mr. Don Bessy was a longtime Hayward resident, a California State University Hayward graduate, a member and past president of the Hayward Lions Club, a member of the Social Concerns Committee at the First United Methodist Church, and helped charitable organizations such as FESCO and Salvation Army. Mr. Charles Snipes was a Fairview resident, a longtime member of the Fairview Fire Protection District Board, a member of the Hayward Unified School District Personnel Commission, and a member of the Social Concerns Committee at the First United Methodist Church. Mayor Halliday asked staff to work with the Bessy and Snipes families and find a suitable place to plant a tree in their memory.

APPROVED

Barbara Halliday
Mayor, City of Hayward

ATTEST:

Miriam Lens
City Clerk, City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-463

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Development Services

SUBJECT

Resolution to Authorize the City Manager, on Behalf of the Hayward Area Shoreline Planning Agency (HASPA), to Accept an Adaptation Planning Grant from the California Department of Transportation (Caltrans) for \$509,000, and to Negotiate and Execute a Memorandum of Understanding with the Hayward Area Recreation and Park District (HARD) and East Bay Regional Park District (EBRPD), to Complete the Hayward Regional Shoreline Master Plan

RECOMMENDATION

That the City Council adopts a resolution authorizing the City Manager to accept an Adaptation Planning Grant from Caltrans for \$509,000, and to negotiate and execute a Memorandum of Understanding with HARD and EBRPD, to complete the Hayward Regional Shoreline Master Plan.

SUMMARY

The Development Services Department is requesting that the City Council adopt a resolution to authorize the City Manager, on behalf of HASPA, to accept an Adaptation Planning Grant from Caltrans for \$509,000, and negotiate and execute a Memorandum of Understanding with HARD and EBRPD, to complete the Hayward Regional Shoreline Master Plan. HASPA proposes to meet the 11.47 percent local match requirement through in-kind-services totaling \$175,000 in value. In-kind-services would consist of staff time only to manage the completion of the project.

The Hayward Regional Shoreline Master Plan will provide a suite of mitigation actions and policy recommendations to improve the City's capacity to plan for, prepare for, mitigate against, and adapt to sea level rise. The project will focus on protecting the City's most important natural and community assets.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	Grant Application

File #: CONS 18-463

Attachment IV Grant Award Letter



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Development Services

SUBJECT Resolution to Authorize the City Manager, on Behalf of the Hayward Area Shoreline Planning Agency (HASPA), to Accept an Adaptation Planning Grant from the California Department of Transportation (Caltrans) for \$509,000, and to Negotiate and Execute a Memorandum of Understanding with the Hayward Area Recreation and Park District (HARD) and East Bay Regional Park District (EBRPD), to Complete the Hayward Regional Shoreline Master Plan.

RECOMMENDATION

That the City Council adopts a resolution authorizing the City Manager to accept an Adaptation Planning Grant from Caltrans for \$509,000 (Attachment II), and to negotiate and execute a Memorandum of Understanding with HARD and EBRPD, to complete the Hayward Regional Shoreline Master Plan.

SUMMARY

The Development Services Department is requesting that the City Council adopt a resolution to authorize the City Manager, on behalf of HASPA, to accept an Adaptation Planning Grant from Caltrans for \$509,000, and to negotiate and execute a Memorandum of Understanding with HARD and EBRPD, to complete the Hayward Regional Shoreline Master Plan. HASPA proposes to meet the 11.47 percent local match requirement through in-kind-services totaling \$175,000 in value. In-kind-services would consist of staff time only to manage the completion of the project.

The Hayward Regional Shoreline Master Plan will provide a suite of mitigation actions and policy recommendations to improve the City's capacity to plan for, prepare for, mitigate against, and adapt to sea level rise. The project will focus on protecting the City's most important natural and community assets.

BACKGROUND

On April 28, 2017, Governor Edmund G. Brown Jr. signed into law Senate Bill 1 (SB 1), The Road Repair and Accountability Act of 2017, a transportation funding bill that provides a source of funds to maintain and integrate California's multimodal transportation system. The bill includes \$20 million in climate change adaptation planning grants allocated to local and regional agencies for adaptation planning. This funding is intended to advance adaptation

planning on California's transportation infrastructure, including but not limited to roads, railways, bikeways, trails, and bridges.

HASPA, a joint powers authority consisting of the City, HARD, and EBRPD, was established in 1970. The primary purpose of HASPA is to coordinate agency planning activities and adopt and implement policies for the improvement of the Hayward Regional Shoreline for future generations. HASPA's focus has shifted from the shoreline preservation achieved over the past five decades to mitigating the effects of sea level rise on the City's natural, recreational, and man-made resources. HASPA has already had two vulnerability assessments completed for the shoreline, which identified vulnerable assets and potential adaptation strategies. The Preliminary Study of the Effect of Sea Level Rise on the Resources of the Hayward Shoreline, which outlines four long-term adaptation strategies to protect critical assets, was completed in 2010. The Hayward Resilience Study, which was an extension of the Adapting to Rising Tides Project led by the San Francisco Bay Conservation and Development Commission (BCDC), was completed in 2014. Both studies can be accessed on the City's [Sea Level Rise webpage](#). The Hayward Regional Shoreline Master Plan will build off these past studies to identify specific adaptation strategies, policies, and projects to protect identified vulnerable assets.

HASPA submitted an application to Caltrans for the Adaptation Planning Grant on February 23, 2018 requesting \$509,000 (Attachment III). Caltrans conditionally awarded a grant to HASPA for the full requested amount on May 11, 2018 (Attachment IV).

Council Sustainability Committee – The Council Sustainability Committee considered a [staff report](#) about the Caltrans grant and the Shoreline Master Plan on July 16, 2018. The Council Sustainability Committee recommended that the City Council adopt the resolution to accept the Caltrans grant and Memorandum of Understanding to complete the Shoreline Master Plan.

DISCUSSION

Staff believes that this grant affords the City an opportunity to take a proactive, thoughtful and collaborative approach to protect the City from the potential impacts of future sea level rise. If awarded, the grant would lessen the financial burden on the City to hire a consulting firm to perform technical analysis and prepare an adaptation plan, and would position the City as an early leader of adaptation planning in the Bay Area.

Hayward Regional Shoreline Master Plan. As mentioned earlier, the Hayward Regional Shoreline Master Plan will provide a suite of mitigation actions and policy recommendations to improve the City's capacity to plan for, prepare for, mitigate against, and adapt to sea level rise. The project will protect natural and community assets, including wetlands and natural habitat along the Hayward Regional Shoreline, State Route 92 (SR 92), the San Francisco Bay Trail, and the adjacent City's Industrial Technology and Innovation Corridor. Additional information regarding the project components, timeline, and cost is provided in the grant application (Attachment III).

Co-Benefits. The project will provide several co-benefits to the City related to public health, natural ecosystems, air quality, social equity, and local and regional economy.

- **Public Health:** The project will protect the City's Water Pollution Control Facility, which may experience flooding to emergency storage ponds and impacts to equipment or infrastructure, which could impact water quality.
- **Natural Ecosystems:** If effective adaptation strategies are not taken, important natural assets along the shoreline will be vulnerable to inundation. Wetlands provide habitat for the Salt Marsh Harvest Mouse, Western Snowy Plovers, California Clapper Rail, and other shorebirds. The project will evaluate habitat restoration as one of the actions required to increase the resilience of the natural habitats along the shoreline.
- **Air Quality:** The project will protect the San Francisco Bay Trail and promote active modes of transportation, which will reduce vehicle miles traveled and improve the air quality in the City and surrounding areas.
- **Social Equity:** The shoreline provides employment and recreational opportunities to economically disadvantaged communities. The project will ensure that the shoreline continues to be accessible to these communities and buffer them from direct sea level rise impacts. The City will also engage these communities throughout the development of the project.
- **Local and Regional Economy:** The shoreline and San Francisco Bay Trail provide an estimated \$490,000 in annual revenue to the local and regional economy. The Hayward Shoreline Interpretive Center generates more than \$60,000 in annual revenue for HARD. If these assets aren't protected, this revenue would be diminished or lost. Furthermore, the shoreline will protect the City's Industrial Technology and Innovation Corridor, which is vulnerable to sea level rise and would experience significant economic hardship if resilience along the Shoreline is not improved.

General Plan. The Hayward 2040 General Plan provides the following policy requiring the City to coordinate with HASPA and other agencies to develop and implement the Hayward Regional Shoreline Master Plan.

Hazards Policy 4.3 (Shoreline Realignment Master Plan): The City shall coordinate with the Hayward Area Shoreline Planning Agency, the Bay Conservation Development Commission, and other agencies involved in the Adapting to Rising Tides Project to develop and implement a Regional Shore Realignment Master Plan. The Master Plan shall identify:

- A preferred long-term strategy and implementation program to protect the regional shoreline.
- Interim standards to regulate development within potentially affected areas if sea levels rise prior to the construction of shoreline protection projects.
- Potential flood mitigation measures to apply to development projects within potentially affected areas.

The project would also support the following General Plan policies in that it would protect resources along the shoreline, migratory bird habitat, and existing views of the bay. The project would also allow the City to better assess and address potential flooding hazards and help ensure that new development nearby is sensitive to the shoreline.

- Natural Resources Policy 1.4 (Shoreline Protection and Enhancement): The City shall coordinate with the Hayward Area Shoreline Planning Agency, Bay Conservation and Development Commission, and California Coastal Commission to conserve, protect, and enhance natural and cultural resources along the San Francisco Bay shoreline by balancing uses that support multiple community needs, such as recreation, tourism, cultural resource preservation, and natural resource protection.
- Natural Resources Policy 1.6 (Migratory Bird Habitat Protection): The City shall support the efforts of the Hayward Area Shoreline Planning Agency and other agencies to preserve and protect tidal flats and salt ponds with low salinity for migratory waterfowl that depend on these areas.
- Natural Resources Policy 8.4 (Shoreline Views Protection): The City shall maintain and implement residential and non-residential design guidelines to protect existing views of the Bay shoreline.
- Hazards Policy 4.1 (Monitor Rising Sea Level): The City shall monitor information from regional, State, and Federal agencies on rising sea levels in the San Francisco Bay to determine if additional adaptation strategies should be implemented to address flooding hazards.
- Community Health and Quality of Life Policy 11.5 (Hayward Regional Shoreline Access): The City shall require, as appropriate, the dedication of public access easements through new developments along the Hayward Regional Shoreline.

Grant Management Policy (A.R. 3.6) – Effective October 12, 2017

To meet the quick turnaround for the grant application deadline and ensure that the City along with its partnering agencies did not miss out on the opportunity to complete an important project, staff could not submit the grant application to the Grant Administrative Oversight Committee's review prior to submitting the application to Caltrans. As such, Finance Department staff determined that it was appropriate to proceed with submitting the grant application to Caltrans.

FISCAL IMPACT

The impact of accepting this grant to the General Fund will come in the form of staff time to manage the project. The grant requires a local match, which can take the form of in-kind contributions. Staff proposes a match through in-kind-services to meet the required contribution of \$175,000 through review and preparation of the Hayward Regional Shoreline Master Plan, preparation of necessary legislative documents, public outreach, processing invoices and preparation of quarterly reports. This burden will be shared by all participating agencies and an estimation of the total in-kind-services to be provided by all three-member agencies is below:

1) Project Initiation:	\$45,000
------------------------	----------

2)	Update Sea Level Rise Modeling and Mapping:	\$5,500
3)	Public Outreach:	\$5,500
4)	Develop Adaptation Responses:	\$35,000
5)	Draft Shoreline Master Plan and Maps:	\$61,000
6)	HASPA Adoption of Final Plan:	\$9,000
7)	Fiscal Management:	\$14,000
	TOTAL:	<u>\$175,000</u>

Additionally, a California Environmental Quality Act (CEQA) environmental analysis may be required for the plan as part of this project or on a project-specific basis for implementation of the plan. Staff and the HASPA Board of Trustees, will determine if a CEQA document is required for this project after preparation of the plan. If a CEQA environmental review is required staff estimates that the cost to complete this analysis at approximately \$240,000. These costs are not currently included in the City’s Operating or Capital Budgets for the current or future fiscal years. Additionally, a total of \$60,000 in in-kind-services for staff to manage the CEQA process would be required. CEQA analysis is not an eligible expense for the use of grant funds; as such, if required the cost would be shared equally by the three member agencies and is estimated at approximately \$80,000 per agency. The CEQA process would start in Fiscal Year 2019-2020 and end in Fiscal Year 2020-2021.

STRATEGIC INITIATIVES

The Hayward Regional Shoreline Master Plan would support the City’s Complete Communities Strategic Initiative. The purpose of the Complete Communities Strategic Initiative is to create and support services and amenities that provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work and play for all. This item supports the following goals and objectives:

- Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.
- Objective 4: Create resilient and sustainable neighborhoods.
- Goal 2: Develop a regulatory toolkit for policy makers.
- Objective 1: Update, streamline, and modernize zoning and codes.
- Objective 3: Develop and refine other regulatory tools.

This project would improve the economic and environmental resilience of industrial properties and residential neighborhoods near the Hayward Regional Shoreline and protect important natural and recreational resources into the future for public enjoyment. Furthermore, the project will include land use policies and updates to zoning regulations as one of the implementation tools to better protect the shoreline area and businesses from the adverse impacts of sea level rise.

NEXT STEPS

Upon Council approval, HASPA may adopt a resolution at the next HASPA Board of Trustees meeting on August 2, 2018 to accept the grant and approve the memorandum of understanding between the member agencies to collectively manage the project. Staff will then proceed with issuing a request for proposals to hire a consultant in October 2018 to prepare the Hayward Regional Shoreline Master Plan. A summary of the grant timeline is provided in the table below:

Grant Application Deadline:	February 23, 2018, 5:00 p.m.
Award Notice:	May 11, 2018
Local Resolution Deadline:	August 15, 2018
Begin Project:	October 2018
All Work Completed by:	February 2021

Prepared by: Jay Lee, Associate Planner

Recommended by: Laura Simpson, Director of Development Services

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-__

Introduced by Council Member _____

RESOLUTION TO AUTHORIZE THE CITY MANAGER, ON BEHALF OF THE HAYWARD AREA SHORELINE PLANNING AGENCY, TO ACCEPT AN ADAPTATION PLANNING GRANT FROM THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) FOR \$509,000, AND TO NEGOTIATE AND EXECUTE A MEMORANDUM OF UNDERSTANDING WITH THE HAYWARD AREA RECREATION AND PARK DISTRICT AND EAST BAY REGIONAL PARK DISTRICT, TO COMPLETE THE HAYWARD REGIONAL SHORELINE

WHEREAS, The Hayward Area Shoreline Planning Agency (HASPA) has submitted an application to the California Department of Transportation (Caltrans) for grant funding to complete the Hayward Regional Shoreline Master Plan (herein referred to as Plan); and

WHEREAS, The City is the HASPA Treasurer per the terms of the HASPA Joint Exercise Powers Agreement.

WHEREAS, The Plan supports the goals and objectives of the City's Complete Communities Strategic Initiative by improving the resilience of the industrial properties and residential neighborhoods near the Hayward Regional Shoreline and protecting important natural and recreational resources into the future for public enjoyment; and

WHEREAS, The Plan supports the following policies from the City's General Plan: Community Health and Quality of Life Policy 11.15 (Hayward Regional Shoreline Access); Hazards Policy 4.1 (Monitor Sea Level Rise); Hazards Policy 4.3 (Shoreline Realignment Master Plan); Natural Resources Policy 1.4 (Shoreline Protection and Enhancement); Natural Resources Policy 1.6 (Migratory Bird Habitat Protection); and Natural Resources Policy 8.4 (Shoreline Views Protection); and

WHEREAS, On May 11, 2018, Caltrans selected the City's Plan proposal for funding by Caltrans' Road Maintenance and Rehabilitation Account and Public Transportation Account in the amount of \$509,000; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward hereby supports the City's receipt of grant funds on behalf of HASPA for implementation of the Project.

BE IT FURTHER RESOLVED that the City Council authorizes the City Manager to negotiate and execute Memorandum of Understanding in a form approved by the City Attorney, with its partners, the Hayward Area Recreation and Park District and East Bay Regional Park District, to provide the required local match through in-kind-services; and

BE IT FURTHER RESOLVED that the City authorizes its City Manager, or designee to negotiate and execute any other agreements with Caltrans necessary to effectuate the acceptance of grant funds for the Plan as referenced in this resolution.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

PROJECT TITLE	Hayward Shoreline Master Plan
PROJECT LOCATION (city and county)	City of Hayward, Alameda County

	APPLICANT	SUB-APPLICANT	SUB-APPLICANT
Organization	Hayward Area Shoreline Planning Agency		
Mailing Address	777 B St. Hayward CA		
City	Hayward		
Zip Code			
Executive Director/designee and title	Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/> Al Mendall, HASPA Board Trustee	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>
E-mail Address	Al.Mendall@hayward-ca.gov		
Contact Person and title	Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/> Jay Lee, Associate Planner	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>	Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Mrs. <input type="checkbox"/>
Contact E-mail Address	Jay.Lee@hayward-ca.gov		
Phone Number	(510) 583-4207		

FUNDING INFORMATION

Use the Match Calculator to complete this section.

Match Calculator

Grant Funds Requested	Local Match - Cash	Local Match - In-Kind	Total Project Cost
\$ 509,000	\$ 175,000	\$	\$ 684,000

**Specific Source of Local Cash Match
(i.e., local transportation funds, local sales tax, special bond measures, etc.)**

Staff time

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

LEGISLATIVE INFORMATION*			
Please list the legislative members in the project area. Attach additional pages if necessary			
State Senator(s)		Assembly Member(s)	
Name(s)	District	Name(s)	District
Senator Bob Wieckowski	10	Assembly Member Bill Quirk	20
	-		-
	-		-
	-		-
	-		-
	-		-

***Use the following link to determine the legislators.**
<http://findyourrep.legislature.ca.gov/> (search by address)

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

1. Project Description (100 words maximum): Briefly summarize project.

The Hayward Shoreline ("Shoreline") is vulnerable to inundation by sea level rise (SLR) that could impact critical infrastructure such as wastewater infrastructure, the eastern approach to the San Mateo-Hayward Bridge (State Route 92 [SR 92]), landfills, the Bay Trail, the Hayward Shoreline Interpretive Center (HSIC), business parks, residential neighborhoods, marshes and managed ponds. This project will improve Hayward's capacity to plan for, prepare for, mitigate against, and adapt to SLR. The Hayward Regional Shoreline Master Plan ("Plan") will incorporate input from community members and decision-makers. It will include a suite of mitigation actions and policy recommendations that prepare for SLR.

CALTRANS ADAPTATION PLANNING GRANT APPLICATION

2. Project Justification (Do not exceed the space provided.): Describe the problems or deficiencies the project is attempting to address, as well as how the project will address the identified problems or deficiencies. Additionally, list the ramifications of not funding this project.

The Hayward Area Shoreline Planning Agency (HASPA) was established in 1970. HASPA is a joint powers agency of representatives from the East Bay Regional Park District (EBRPD), Hayward Area Recreation and Park District (HARD), and the City of Hayward. The primary purpose of HASPA is to coordinate agency planning activities and adopt and carry out policies for the improvement of the Shoreline for future generations. Without climate adaptation planning, critical transportation systems such as the eastern approach to the Hayward-San Mateo Bridge (SR 92), and the San Francisco Bay trail along the Shoreline will be vulnerable to flooding from SLR and coastal storm surge. Currently due to high tides and storm surges the San Francisco Bay Trail is being flooded two to three times annually. In addition, there is a paved pedestrian bridge over SR 92 that is part of the San Francisco Bay Trail. Sections of the Bay Trail in Hayward provide \$490,000/ yearly in recreation benefits to the local and regional economy (Hayward Shoreline Resilience Study). The entrance to SR 92 was highlighted in the Caltrans Vulnerability assessment as a road at risk of flooding due to sea level rise. SR 92 is used by 86,000 passengers, 1,600 transit riders and 6,000 trucks daily. Thus, flooding of this bridge will decrease regional mobility and result in increased congestion on the Dumbarton Bridge which is also susceptible to inundation from SLR. Caltrans estimates that replacing SR 92 will cost \$45-132 million dollars (Hayward Shoreline Resilience Study).

These preserved lands, owned by EBRPD, HARD, the City of Hayward, and the US Fish and Wildlife Service, were intended to provide recreational opportunities to the public and protect the habitats of sensitive wetlands and marsh species. As the sea level begins to rise, they have also come to serve as the City's first line of defense against storm surge and high tides. Formerly the site of salt ponds, earthen levees initially protected the Shoreline. Higher tides and more frequent periods of inundation have overtopped the aging levees, leading to further erosion and sedimentation of the area. As a result, HASPA's focus has shifted from the shoreline preservation achieved over the past five decades to mitigating the effects of sea level rise on the area's natural, recreational, and man-made resources.

Important natural and community assets are vulnerable to flooding as the sea level rises, absent effective mitigation strategies. The HSIC, Don Edwards San Francisco Bay National Wildlife Refuge, and miles of shoreline trails, including segments of the San Francisco Bay Trail, provide educational and recreational opportunities for community members. Industrial businesses, a main source of revenue for the City, about the wetlands and include many sites that utilize or process hazardous materials in their operations, which could contaminate bay water in the event of a flood. The City's Water Pollution Control Facility is located along the Shoreline and may experience flooding to emergency storage ponds and impacts to equipment or infrastructure caused by subsidence or uplift as the water table rises. The approach to the San Mateo-Hayward Bridge along SR 92, a major high-volume thoroughfare connecting Alameda County and Silicon Valley, will experience periodic flooding as well as erosion and deterioration due to sea level rise. Stretches of Union Pacific Railroad track running through Hayward are at risk of inundation at as low as one foot of sea level rise. Hayward residences are also at risk of sea level rise – particularly several South Hayward mobile home parks, located adjacent to engineered creeks, which house some of the City's most vulnerable residents.

While many studies have provided assessments of the risk of SLR to the Shoreline and surrounding community, no study has prescribed mitigation measures, policy recommendations, or zoning changes specific to the various habitats, recreational resources, and infrastructure located in areas at risk of flooding or permanent inundation. These studies have not incorporated the knowledge and opinions of community members and elected officials. Staff at HASPA member agencies have neither the capacity nor the expertise to identify the appropriate mitigation measures; nor do they have the capacity to educate members of the community on the benefits, costs, and tradeoffs associated with alternative courses of action to gather meaningful community input on the subject. HASPA and its member agencies have identified the need for a comprehensive integration of the latest climate science, existing shoreline asset GIS data, and robust community and decision maker input to produce a plan for mitigating sea level rise along the Shoreline.

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

3. Grant Specific Objectives (Do not exceed the space provided.): Explain how the proposed project supports the related State initiatives and priorities (as applicable) identified on pages 3 – 4. Furthermore, explain how the proposed project addresses the grant specific objectives listed on page 5.

HASPA's proposed long-term sea level rise adaptation plan supports several state initiatives and priorities in the following ways:

- Executive Order S-13-08: HASPA will assist state agencies in planning for SLR and climate impacts through implementing a local SLR adaptation plan.
- Executive Order B-30-15: HASPA will assist state agencies by prioritizing natural infrastructure adaptation strategies within the Plan.
- California Transportation Plan (CTP) 2040: The Plan will help Caltrans ensure the safety and reliability goals of the CTP by protecting SR 92. Investment in adaptation planning for the Shoreline will cost much less than reactive investment later when the highways are flooded.
- Regional Transportation Plan Guidelines: HASPA creating a local climate change adaptation plan follows the San Francisco Bay Area Regional plan: Plan Bay Area 2040 which highlights the importance of using natural infrastructure to help be resilient to SLR impacts across the Bay.
- 2017 General Plan Guidelines: The City of Hayward's General Plan calls for the formation of a SLR adaptation plan. With grant funds the Plan will be able to be created and integrated with the General Plan following SB 379.
- Integrate Climate Adaptation and Resiliency Program (ICARP): HASPA will make it a priority to meet the required reporting to ICARP Technical Advisory Council. The Plan could serve as resource for other cities that are just starting to think about climate adaptation.
- Addressing Disadvantaged Communities: The Shoreline serves a large concentration of economically disadvantaged communities nearby in the City of Hayward and other cities in the region. The San Francisco Bay Conservation and Development Commission (BCDC) Adapting to Rising Tides (ART) Program developed 10 community indicators for flood risk (language, vehicle access, housing cost, race/ethnicity, education, housing tenure, transportation cost, income, elderly population, and youth population) for the nine Bay Area counties. Nearly all the nearby residential communities, which are the primary users of the Shoreline, exhibit multiple community indicators for flood risk. Furthermore, the California Environmental Protection Agency (CalEPA)'s CalEnviroScreen scores the Shoreline among the highest areas disproportionately burdened by multiple sources of pollution in the entire Bay Area.
- Public Health: The Plan will address impacts related to flooding damage to facilities and amenities essential for maintaining public health. The City's Water Pollution Control Facility (WPCF) is located along the Shoreline and may experience flooding to emergency storage ponds and impacts to equipment or infrastructure caused by subsidence or uplift as the water table rises, which could impact water quality. Additionally, if the closed landfills cannot be protected, it would create a significant financial liability for the City of Hayward if they must be removed. Furthermore, the Plan will encourage active transportation and recreation by protecting pedestrian and bicycle facilities within the Shoreline area.
- Natural Ecosystems: If effective adaptation strategies are not taken, important natural assets along the shoreline will be vulnerable to inundation as the sea level rises. The wetlands along the Shoreline consist of salt, fresh, brackish, and tidal ponds that provide a habitat for a diversity of sea life, plants, and animals including the Salt Marsh Harvest Mouse, Western Snowy Plovers, California Clapper Rail, and other shorebirds using the Shoreline. The Plan will evaluate habitat restoration as one of the actions required to increase the resilience of the natural habitats of the environment.
- Air Quality: By helping to protect the Bay Trail and promote alternative routes of transit such as biking or walking along the trail will lead to reducing VMT and therefore improving air quality in Hayward and surrounding cities. The City of Hayward is currently creating a new Bike-Ped plan which will also incorporate promoted use of the Bay Trail.

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

Grant Specific Objective (Continued - Do not exceed the space provided.)

- Social Equity: The Shoreline serves a large concentration of economically disadvantaged communities, including those that are transit vulnerable. Several South Hayward mobile home parks located adjacent to engineered creeks, which house some of the City's most vulnerable residents, are also at risk. The Plan will ensure that the Shoreline continues to be accessible to these communities and buffer them from direct SLR impacts. The City will also engage these communities throughout the development of the Plan to ensure their concerns are considered.
- Economy: The Shoreline and the Bay Trail provide \$490,000 yearly in recreation benefits to the local and regional economy (Hayward Shoreline Resilience Study). Additionally, the HSIC generates more than \$60,000 annually in revenue for HARD and employs nine naturalists. If the HSIC is temporarily or permanently closed, this revenue and the jobs the center provides would be diminished or lost. Furthermore, the Plan will protect the City's Industrial Technology and Innovation Corridor, which is vulnerable to SLR and would experience significant economic hardship if resilience along the Shoreline is not improved.
- Reductions in GHG: As discussed earlier, the Plan will encourage active transportation and include habitat restoration alternatives, which will reduce GHG emissions in the long run.

The Plan will research adaptation methods that will protect the Shoreline from SLR impacts and enhance the Shoreline by focusing on how to best protect the wetlands to help them maintain natural flood protection benefits for nearby transportation assets. The Plan will recommend near term and future actions that can be implemented to protect the Shoreline for future generations.

The project area includes both the approach to the San Mateo-Hayward Bridge along SR 92 and the Bay Trail. The approach to the San Mateo-Hayward Bridge along SR 92 will experience periodic flooding as well as erosion and deterioration due to SLR. When combined with the lack of adequate alternative routes, the severity of SR 92's vulnerability to inundation is increased because it is a commuter route. SLR will also increase the frequency of overtopping levees and result in parts of the Bay Trail being inundated and unable to be utilized by commuters. Many of these levees are not up to FEMA standards since they were built for salt production and not to protect the area from SLR. The Bay Trail is of great value to the region from a recreational and public health perspective and provides a valuable commuting route for local populations in low car ownership areas. Additionally, stretches of Union Pacific Railroad track running through Hayward are at risk of inundation at as low as one foot of SLR. The Plan will prioritize protecting these vulnerable but locally and regionally important transportation assets into the future. HASPA will collaborate with Caltrans in developing adaptation alternatives related to SR 92.

Hayward's network of marshes is a significant part of the flood protection for industrial development along the western edge of the city. If this flood protection is lost, property damage and service disruptions to industrial and commercial properties would lead to local economic damage due to recovery costs and lost productivity. The Oliver Salt Ponds buffer the SR 92 approach from wave erosion. Even a temporary closure of the road would have significant impacts on regional commuter movement since there is no local alternative.. Additionally, Cogswell Marsh is the first line of defense against coastal flooding of commercial and industrial area including the WPCF. Storm event and SLR flooding could increase operations and maintenance and capital improvement costs. The WPCF serves many local industrial businesses, so in addition to a potential threat to human health and safety, disruption of the plant would trigger additional losses to these businesses and their employees. The Plan will emphasize natural flood and SLR protection to protect essential biological resources while also protecting the economic vitality of the surrounding commercial and industrial area and larger Bay Area region.

This project will increase community understanding of climate change impacts through conversations about future sea levels and the mitigation actions necessary to protect the Shoreline and adjacent communities. Throughout the process of developing the Plan, HASPA intends to engage with a variety of stakeholders including but not limited to: (1) Property and business owners, (2) Caltrans, (3) BCDC, (4) East Bay Dischargers Authority (EBDA), (5) Alameda County Flood Control & Water Conservation District (ACFCWCD), (6) California Department of Fish and Wildlife (DFW), (7) Bay Area Climate Literacy Collaborative (Bay-CLIC), (8) Coastal Hazards Adaptation Resiliency Group (CHARG), (9) Climate Readiness Institute (CRI), and (10) Association of Bay Area Governments (ABAG) (San Francisco Bay Trail Division).

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

4. Project Management

- A. Scope of Work in required Microsoft Word format
- B. Project Timeline in required Microsoft Excel format

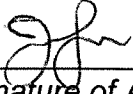
See Scope of Work and Project Timeline samples and checklists for requirements (Grant Application Guide, Pages 26-32), also online at: <http://www.dot.ca.gov/hq/tpp/grants.html>

FY 2018-19
CALTRANS ADAPTATION PLANNING GRANT APPLICATION

Application Signature Page

If selected for funding, the information contained in this application will become the foundation of the contract with Caltrans.

To the best of my knowledge, all information contained in this application is true and correct.
If awarded a grant with Caltrans, I agree that I will adhere to the program guidelines.



Signature of Authorized Official (Applicant)

Associate Planner

Title

Jay Lee

Print Name

2/23/18

Date

Signature of Authorized Official (Sub-Applciant)

Print Name

Title

Date

Signature of Authorized Official (Sub-Applciant)

Print Name

Title

Date

Scope of Work Checklist

The Scope of Work is the official description of the work that is to be completed during the contract. **The Scope of Work must be consistent with the Project Timeline. Applications with missing components will be at a competitive disadvantage.** Please use this checklist to make sure your Scope of Work is complete.

The Scope of Work must:

- Use the Fiscal Year 2018-19 template provided and in Microsoft Word format
- List all tasks and sub-tasks using the same title as stated in the project timeline
- Include task and sub-task numbers in accurate and proper sequencing; consistent with the project timeline
- List the responsible party for each task and subtask and ensure that it is consistent with the project timeline (i.e. applicant, sub-applicant, or consultant)
- Include a thorough Introduction to describe the project and project area demographics, including a description of the disadvantaged community involved with the project, if applicable
- Include a thorough and accurate narrative description of each task and sub-task
- Include a task for a kick-off meeting with Caltrans at the start of the grant
- Include a task for procurement of consultants, if consultants are needed
- Include a task for invoicing
- Include a task for quarterly reporting to Caltrans
- Include detailed public participation and services to diverse communities
- Include project implementation/next steps
- List the project deliverable for each task in a table following each task and ensure that it is consistent with the project timeline
- EXCLUDE environmental, complex design, engineering work, and other ineligible activities

SCOPE OF WORK: Hayward Shoreline Master Plan

The City of Hayward is home to the Hayward Regional Shoreline (“Shoreline”), which is a low-lying shoreline vulnerable to inundation by sea level rise (SLR). It is not a question of whether the Shoreline will be impacted by SLR but a question of when SLR will cause flooding and harm to various vital recreational, transportation, and ecological assets. These critical assets are not limited to but include a regional wastewater treatment plant, the eastern approach to the San Mateo-Hayward Bridge (State Route 92 [SR 92]), closed landfills, the San Francisco Bay Trail, the Hayward Shoreline Interpretive Center (HSIC), industrial properties, residential neighborhoods, and tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline. If nothing is done to protect the vulnerable shoreline these assets will not only experience an increase in temporary flooding, they will be fully inundated in the future.

The California Ocean Protection Council Science Advisory Team’s updated report on SLR suggests that the Bay Area will very likely experience 12 inches of SLR by 2100 and could experience up to 10 feet of SLR by 2100 depending on rates of West Antarctic ice sheet loss ([Rising Seas in California](#)). Even a small amount of SLR with a king tide or extreme storm will result in significant flooding of critical assets along the Hayward Shoreline. If no effective adaptation measures are taken, under a 12-inch SLR scenario, which could occur as early as 2050, Cogswell Marsh, Triangle Marsh, and HARD Marsh are predicted to be fully inundated due to SLR.

The eight marshes along the shoreline provide natural flood protection for critical transportation assets such as the entrance to the SR 92 and the San Francisco Bay Trail. With rising sea levels and stronger storm events the San Francisco Bay Trail is being flooded two to three times annually. In addition to providing flood protection, the HSIC utilizes the marshes to educate Bay Area residents about the San Francisco Bay. Without planning for and implementing adaptation measures, many of the tidal marshes and managed wetlands will be inundated by 2050 and the Bay Trail will increasingly not be accessible to the thousands of visitors.

Since more than 50% of Hayward school children are in low income families, loss of these wetlands will cause this disadvantaged community to lose access to participate in the HSIC’s shoreline educational programs and they in turn will not be able to share what they learn about not polluting the Bay and creeks with others.

The Hayward Area Shoreline Planning Agency (HASPA), which is a joint powers authority including the City of Hayward, Hayward Area Recreation and Park District (HARD), and East Bay Regional Parks District (EBRPD, has already had two vulnerability assessments for the Shoreline completed that will help inform the Hayward Shoreline Master Plan (“Plan”). In 2010 a [Preliminary Study](#) was done that outlines four long-term adaptation strategies that can be implemented to protect critical assets in Hayward. Then, in 2014 the Hayward Resilience Study described specific vulnerabilities and suggested landscape-scale adaptation responses. The Hayward Resilience Study was an extension of the Adapting to Rising Tides Project, was led by BCDC in partnership with the NOAA Coastal Services Center and with assistance from ICLEI

Local Governments for Sustainability, Metropolitan Transportation Commission, and California Department of Transportation.

The Plan will build off these past studies and add to the research by studying how groundwater, rain, and other factors not included in past studies will increase flooding due to SLR in Hayward. Throughout the creation of the Plan, HASPA will collaborate with East Bay Dischargers (EBDA), Alameda County Flood Control and Water Conservation District (ACFCWCD), CA Fish and Wildlife to discuss opportunities for long-term multi-benefit shoreline protection approaches. In addition, HASPA will continue working with the Bay Area Adapting to Rising Tides regional working group. As HASPA creates the Plan it will consider how armoring Hayward will impact other cities in the Bay Area. SLR planning needs to incorporate county and state-wide cooperation. Studies are currently being done investigating the impact if certain counties protect themselves against SLR, how it could increase flooding in nearby counties. The Plan will focus on assets that will be impacted in the near-term and long-term and suggest implementation actions to protect these assets. Adaptation approaches will be evaluated on how flexible they are able to improve as time goes on to provide long-term resilience. The Plan will result in suggestions of how to implement adaptation efforts to protect and enhance resilience for vital transportation infrastructure including SR 92 and the Bay Trail, business and residential properties, and park and open space opportunities including the Bay Trail, Sky West Golf Course, Alden Oliver Sports Park, and the San Lorenzo Community Center and Park; enhancement of natural flood protection; and a long term strategy to protect the HSIC.

SLR is a slow impact that will be happen over time and HASPA is creating the Plan to prepare for and mitigate against this climate change impact. The Plan area is in Hayward, California, between Sulphur Creek and Alameda Creek along the eastern shoreline of the San Francisco Bay. The Plan will be used to evaluate how different adaptation actions can protect the shoreline in the short and long-term. HASPA intends to gather public input through interactive community workshops which will be a large contributing factor of the planning process. The Plan will contain conceptual designs that will later lead to implementation and development.

The scope of work shown below reflects the anticipated process and deliverables for the Plan. Although the scope of work and budget do not include the required California Environmental Quality Act (CEQA) analysis, HASPA will hire a CEQA consultant to complete an Environmental Impact Report (EIR). The EIR work will be performed after the development of the Plan but prior to adoption of the Plan because the analysis will depend on the content of the Plan. The time required to complete the CEQA process is built into the project timeline.

RESPONSIBLE PARTIES:

HASPA is a collaborative partnership of the City of Hayward, HARD and EBRPD. HASPA has been in existence since 1970 and renewed its joint powers agreement in 2015 with the expressed intent of addressing SLR. HASPA intends to use this project to expand on its long history of collaboration by working closely with a wide variety of local, regional, state, and federal agencies.

OVERALL PROJECT OBJECTIVES:

The product of this project will be a Hayward Shoreline Master Plan that includes:

- Models of SLR based on the most recently available climate science that projects anticipated inundation zones and threats to existing and future shoreline assets and identifies the characteristics of the communities most impacted by SLR.
- Creating and siting recommended shoreline zoning overlays to ensure future shoreline development is resilient to SLR.
- Identifying mitigation measures to protect natural and manmade shoreline resources against SLR.
- Identifying additional policy and programmatic recommendations for preventing future flooding resulting from SLR.

The short-term project goals and objectives beyond the main deliverables include:

- Increasing community understanding and awareness of climate change impacts through conversations about future sea levels and the mitigation actions necessary to protect the shoreline and adjacent communities.
- Improving community capacity to plan, prepare for, and adapt to SLR.
- Providing a platform for conversations with community members and decision makers about the costs, benefits, and tradeoffs of various mitigation actions.
- Creating a list of shovel-ready projects that can be funded by future grant opportunities.
- Developing a suite of SLR mitigation activities that have applicability to shorelines similar to Hayward's in other parts of the Bay Area.

The expected outcomes will enhance Hayward's resilience to the impacts of extreme weather and climate-related hazards including King Tides and storm surge. The Plan will consider protection or possible relocation of key assets and new policies and zoning regulations that will help to permanently protect properties and communities.

1. Project Initiation

Task 1.1: Project Kick-off Meeting

- HASPA will hold a kick-off meeting with Caltrans staff to discuss grant procedures and project expectations including invoicing, quarterly reporting, and all other relevant project information. Meeting summary will be documented. Meeting summary will be documented.
- Responsible Party: HASPA

Task 1.2: RFP for Consultant Services

- The project will begin in October 2018 with the preparation and issuance of a Request for Proposals for planning consultant services. By January 2019, staff from the City, EBRPD, and HARD tasked with supporting the project will select and hire a consultant team to execute the planning process.
- Responsible Party: HASPA

Task 1.3 Meeting with Staff and Consultant Team

- The Consultant Team will participate in a meeting with City, EBRPD, and HARD staff to establish expectations, finalize timelines.
- Develop a comprehensive and diverse contact list of potential participants for personal and small group interviews that includes public officials, representatives from special districts and regional agencies, local community groups, service organizations, businesses, neighborhood groups, developers, local colleges, and other interest groups.
- Responsible Party: HASPA and Consultant

Task 1.4: Background Report Work

- Develop a survey instrument and protocol aimed at gathering key input while not posing a burden to respondents. The survey will employ open-ended questions which enable the interviewee to drive the process in a conversational style. This method is extremely effective at gathering accurate data and helping create a connection between the project and the community.
- Conduct individual and small group interviews throughout the community and follow up interviews on the phone and via email, as needed, to achieve the target minimum of twenty (20) interviews.
- Summarize the findings of the interviews in a Stakeholder Interview Summary, a concise memo that assesses the type or affiliation of participants in the interviews, number of interviews conducted, and responses to individual survey questions.
- Produce a final version of the Stakeholder Interview Summary, which will be appropriate for posting (excerpt or in its entirety) on the website, web page and/or on project-related social media.
- Responsible Party: Consultant

Task 1.5: Community Outreach Plan (COP)

- Develop a comprehensive Community Outreach Plan (COP) that 1) describes outreach objectives, 2) lists proposed meetings and events, and 3) establishes a tentative schedule.
- Prepare a draft COP for review and comment and finalize the document after one round of revisions.
- Responsible Party: Consultant

Task	Deliverable
<i>1.1</i>	<i>Meeting Notes</i>
<i>1.2</i>	<i>Copy of Procurement Procedures and Executed Consultant Contract</i>
<i>1.3</i>	<i>Meeting Notes</i>
<i>1.4</i>	<i>Stakeholder Interview Summary</i>
<i>1.5</i>	<i>Community Outreach Plan</i>

2. Update Sea Level Rise Modeling and Mapping

Task 2.1: Model sea level rise with groundwater impacts and flooding from rainfall and waves.

- Create models of sea level rise along the Hayward shoreline that include adjusted floodplain and storm surge projections in addition to the most current expected rise in sea

level, which is necessary because current sea level rise projections do not factor in flooding impacts from storm surges.

- Create maps of the Hayward shoreline illustrating anticipated sea level rise and groundwater impacts (which have not been analyzed in current sea level rise studies), areas of expected permanent inundation and at-risk assets highlighting habitats, recreational areas, city-owned properties, infrastructure, healthcare resources, schools, businesses, and residences.
- Responsible Party: Consultant

Task 2.2: Incorporate Overlays and Display on a Web Portal

- Display new maps on a publicly accessible web portal and make them available for download for use as an educational tool and in service of community outreach efforts around the Shoreline Master Plan.
- Responsible Party: Consultant and City of Hayward GIS staff

Task	Deliverable
2.1	<i>New sea level rise maps</i>
2.2	<i>Sea level rise web portal</i>

3. Public Outreach

Task 3.1 Community Workshop #1

- This workshop will introduce the project to the public, define project parameters, inform the community of project opportunities and constraints and solicit opinions from the community to shape Task 5.1, Develop Shoreline Master Plan Concept
- Responsible Party: HASPA & Consultant

Task 3.2: Community Workshop #2

- An interactive workshop that will use clicker technology, and maps to present the master plan concept alternatives. Community will decide on some preferred alternatives. Continue to solicit feedback from the community to shape Task 5.4, Draft Hayward Shoreline Master Plan
- Responsible Party: HASPA & Consultant

Task 3.3: On-line Comment Forum

- The Consultant Team will employ an on-line comment forum, such as Open Town Hall or MySidewalk, to supplement the results of the second community workshop and gather input on the Preferred Alternative. This tool will make it easier for residents to participate in the process, provide another avenue to solicit feedback, and help to cast a wider net to gather input.
- Responsible Party: HASPA & Consultant

Task 3.4: Community Workshop #3

- Present Draft Design Concept and Report and continue to solicit feedback for public comments to shape Task 5.4, Draft Hayward Shoreline Master Plan and Task 5.6, Final Hayward Shoreline Master Plan

- Responsible Party: HASPA & Consultant

Task	Deliverable
3.1	<i>PowerPoint Presentation, Workshop summary, Photos</i>
3.2	<i>PowerPoint Presentation, Workshop summary, Photos</i>
3.3	<i>Summary of online feedback and comments</i>
3.4	<i>PowerPoint Presentation, Workshop summary, Photos</i>

4. Develop Adaptation Responses

Task 4.1: Develop Goals and Policies

- Review preliminary goals and vision for the Master Plan and incorporate community feedback from Workshop #1.
- Responsible Party: HASPA & Consultant

Task 4.2: Develop Adaptation Strategies

- Develop draft adaptation strategies for the identified key planning issues from past vulnerability assessments (Hayward Resilience Study, Preliminary Report) to address underlying vulnerabilities.
- For each adaptation action the consultant will provide a variety of implementation actions.
- Responsible Party: HASPA & Consultant

Task	Deliverable
4.1	<i>Goals and Policies written and revised</i>
4.2	<i>Report on Adaptation Strategies</i>

5. Draft Shoreline Master Plan and Maps

Task 5.1: Develop Shoreline Master Plan Concept

- Based on the existing conditions report and the community input from Workshop #1, a Shoreline Master Plan concept will be developed. The Consultant Team will prepare an illustrated Administrative Draft Master Plan for Staff review and comment.
- The Consultant Team will develop an Adaptation Implementation Plan that identifies feasible actions HASPA can take to implement the adaptation plan.
- Responsible Party: Consultant

Task 5.2: Formulate Alternatives Based on Community Feedback

- The Consultant Team will prepare a Preferred Alternative Framework. The Preferred Alternative will provide the foundation for Master Plan content, including policies and implementation actions. The Framework will describe the Preferred Alternative, guiding principles, and potential development intensities. The Framework will consist primarily of maps, graphics, and images. The alternatives will be prepared and presented at Community Workshop #2.
- Responsible Party: Consultant

Task 5.3 Hold Work Session for HASPA and Other City of Hayward Staff

- The Consultant Team will work with HASPA TAC staff to prepare and hold a work session for HASPA and other City of Hayward Staff
- Responsible Party: Consultant

Task 5.4: First Draft Master Plan

- Based on the preferred design alternative chosen in Workshop #2, a draft report will be prepared. The draft report will be presented at Workshop #3 for public comment.
- Responsible Party: Consultant

Task 5.5: Identify Potential Funding Sources

- Funding sources for projects and improvements may include public bonds, tax credit allocations, grants, and community foundation resources, and contributions from HASPA members.
- Responsible Party: Consultant

Task 5.6: Second Draft Master Plan (Public Review)

- The Consultant Team will prepare a Public Review Draft Master Plan and Code (including maps) based on input from the Task Force, Staff, and public meetings.
- Responsible Party: HASPA & Consultant

Task 5.7: Third Draft Master Plan

- HASPA work session. Four hard copies and four electronic copies of the final report will be submitted to Caltrans. Credit of the financial contribution of the grant program will be credited on the cover of the report.
- Responsible Party: Consultant

Task	Deliverable
<i>5.1</i>	<i>Draft Master Plan and Code</i>
<i>5.2</i>	<i>Preferred Alternative Framework</i>
<i>5.3</i>	<i>Work session notes</i>
<i>5.4</i>	<i>Draft Report</i>
<i>5.5</i>	<i>Funding Source Report</i>
<i>5.6</i>	<i>Public Review Draft Master Plan and Code</i>
<i>5.7</i>	<i>Final Report</i>

6. HASPA Adoption of Final Plan

Task 7.1: Prepare HASPA Staff Report

- HASPA will prepare a staff report.
- Responsible Party: HASPA

Task 7.2: Hold Hearings with HASPA, Hayward City Council, HARD Board of Directors, and EBRPD Board of Directors

- The Consultant Team will prepare for and attend one public meeting before the City Council to present the Final Master Plan and Code for adoption and EIR for certification. The Consultant Team will prepare a brief PowerPoint presentation and, with assistance from HASPA staff and facilitate a discussion with the Trustees on the Final Master Plan, Code, and EIR.
- Responsible Party: HASPA & Consultant

Task	Deliverable
7.1	<i>HASPA Staff Report</i>
7.2	<i>Hearing Draft Master Plan and Code</i>

7. Fiscal Management

Task 8.1: Invoicing

- Submit complete invoice package to Caltrans district staff based on milestone completion at least quarterly.
- Responsible Party: HASPA

Task 8.2: Quarterly Reports

- Submit quarterly reports to Caltrans district staff providing a summary of project progress and grant/local match expenditures
- Responsible Party: HASPA

Task	Deliverable
8.1	<i>Invoice Packages</i>
8.2	<i>Quarterly Reports</i>

**California Department of Transportation
Transportation Planning Grants
Fiscal Year 2018-19**

PROJECT BUDGET & TIMELINE

Project Title		Hayward Shoreline Master Plan					Grantee	Hayward Area Shoreline Planning Agency (HASPA)												Deliverable									
Task Number		Fund Source					Fiscal Year 2018/19				FY 2019/20				FY 2020/21														
		Responsible Party	Total Cost	Grant Amount	Local Cash Match	Local In-Kind Match	J	A	S	O	N	D	J	F	M	A	M	J	J		A	S	O	N	D	J	F	M	A
1 Project Initiation																													
1.1	Project Kick-off Meeting	HASPA	\$2,000	\$0	\$2,000																								
1.2	RFP for Consultant Services	HASPA	\$1,000	\$0	\$1,000																								
1.3	Hire Civic Spark Fellow	HASPA	\$60,000	\$30,000	\$30,000																								
1.4	Meeting with Staff and Consultant Team	HASPA & Consultant	\$3,000	\$1,000	\$2,000																								
1.5	Background Report Work	Consultant	\$35,000	\$28,000	\$7,000																								
1.6	Community Outreach Plan (COP)	Consultant	\$15,000	\$12,000	\$3,000																								
2 Update Sea Level Rise Modeling and Mapping																													
2.1	Model sea level rise with groundwater impacts and flooding from rainfall and waves	Consultant	\$30,000	\$26,000	\$4,000																								
2.2	Incorporate overlays and display on a web portal	Consultant	\$12,000	\$10,500	\$1,500																								
3 Public Outreach																													
3.1	Community Workshop #1	HASPA & Consultant	\$3,000	\$1,500	\$1,500																								
3.2	Community Workshop #2	HASPA & Consultant	\$3,000	\$1,500	\$1,500																								
3.3	On-line Comment Forum	Consultant	\$4,000	\$3,000	\$1,000																								
3.4	Community Workshop #3	HASPA & Consultant	\$3,000	\$1,500	\$1,500																								
4 Develop Adaptation																													
4.1	Develop Goals and Policies	HASPA & Consultant	\$50,000	\$40,000	\$10,000																								
4.2	Develop Adaptation Strategies	HASPA & Consultant	\$130,000	\$105,000	\$25,000																								
5 Draft Shoreline Master Plan and Maps																													
5.1	Concept	Consultant	\$160,000	\$135,000	\$25,000																								
5.2	Formulate alternatives based on community feedback	Consultant	\$25,000	\$21,000	\$4,000																								
5.3	Prepare work session staff report for HASPA and hold work session	HASPA	\$8,000	\$0	\$8,000																								
5.4	Draft Hayward Shoreline Master Plan	Consultant	\$80,000	\$65,000	\$15,000																								
5.5	Identify Potential Funding Sources	Consultant	\$10,000	\$8,000	\$2,000																								
5.6	Public Review Draft Master Plan	HASPA & Consultant	\$15,000	\$10,000	\$5,000																								
5.7	Final Hayward Shoreline Master Plan	Consultant	\$8,000	\$6,000	\$2,000																								
6 HASPA Adoption of Final Plan and EIR Certification																													
6.1	Prepare HASPA staff report	HASPA	\$3,000	\$0	\$3,000																								
6.2	Hold hearings with HASPA, Hayward City Council, HARD Board of Directors, and EBRPD Board of Directors	HASPA & Consultant	\$10,000	\$4,000	\$6,000																								
7 Fiscal Management																													
7.1	Invoicing	HASPA	\$2,000	\$0	\$2,000																								
7.2	Quarterly Reports	HASPA	\$12,000	\$0	\$12,000																								
TOTALS			\$684,000	\$509,000	\$175,000																								

total = \$509,000 match % = 25.6%

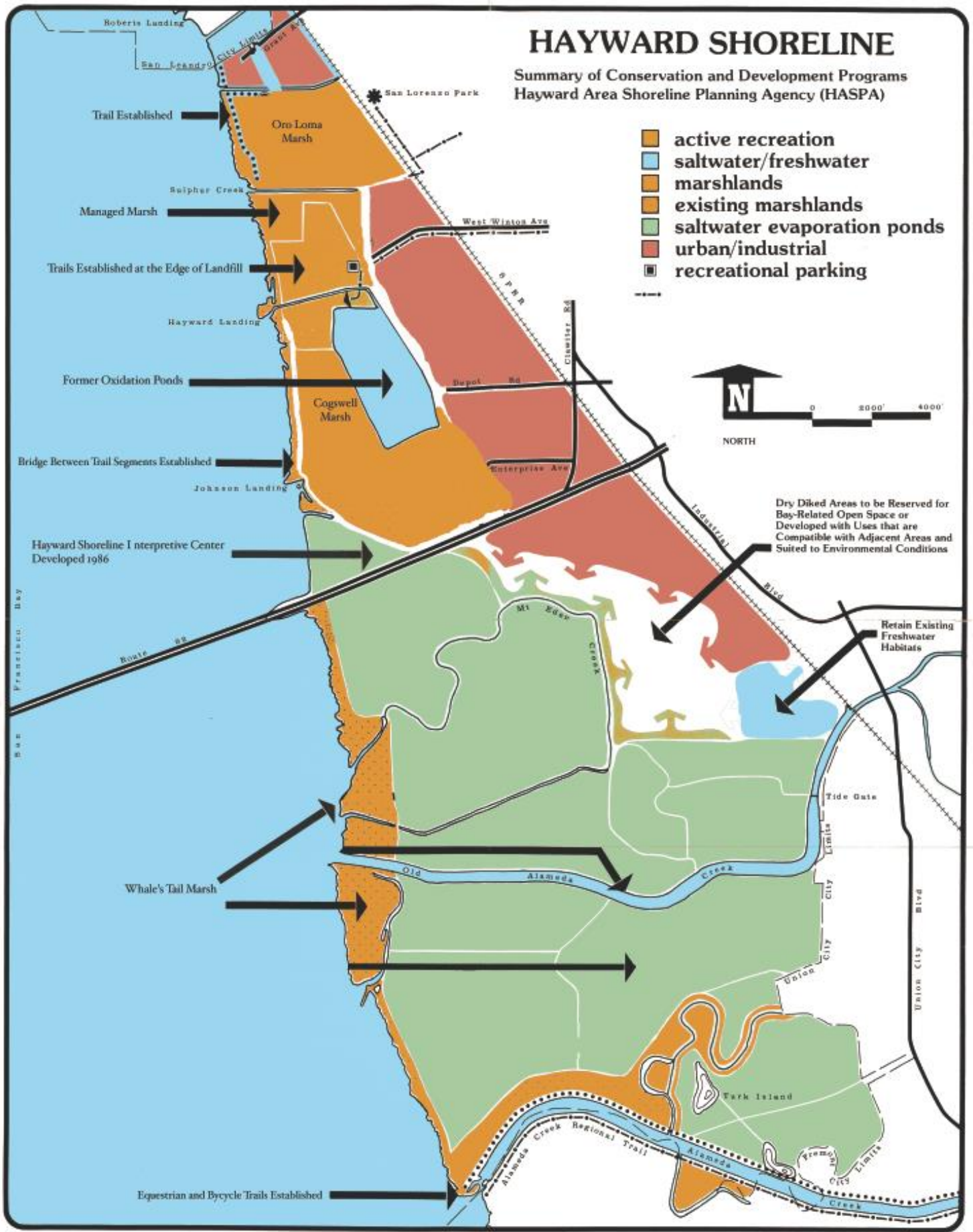
Reimbursement of indirect costs is allowable upon approval of an Indirect Cost Allocation Plan for each year of project activities. Provide rate if indirect costs are included in the project budget. Approved Indirect Cost Rate: _____%

Note: Each task must contain a grant amount and a local cash match amount. Local cash match must be proportionally distributed by the same percentage throughout each task. Local in-kind match needs to be indicated where in-kind services will be used. Please review the grant program section that you are applying to for details on local match requirements. The project timeline must be consistent with the scope of work.

HAYWARD SHORELINE

Summary of Conservation and Development Programs
Hayward Area Shoreline Planning Agency (HASPA)

- active recreation
- saltwater/freshwater
- marshlands
- existing marshlands
- saltwater evaporation ponds
- urban/industrial
- recreational parking



Trail Established

Managed Marsh

Trails Established at the Edge of Landfill

Former Oxidation Ponds

Bridge Between Trail Segments Established

Hayward Shoreline Interpretive Center Developed 1986

Whale's Tail Marsh

Equestrian and Bicycle Trails Established

Dry Diked Areas to be Reserved for Bay-Related Open Space or Developed with Uses that are Compatible with Adjacent Areas and Suited to Environmental Conditions

Retain Existing Freshwater Habitats

Robert's Landing
San Leandro
City Limits

San Lorenzo Park

Sulphur Creek

West Winton Ave

Hayward Landing

Depot Rd

Enterprise Ave

Johnson Landing

Industrial Blvd

Route 88

Mt Eden

Tide Gate

Old Alameda Creek

City Limits

City Limits

Union City

Union City Blvd

Turk Island

Alameda Creek Regional Trail

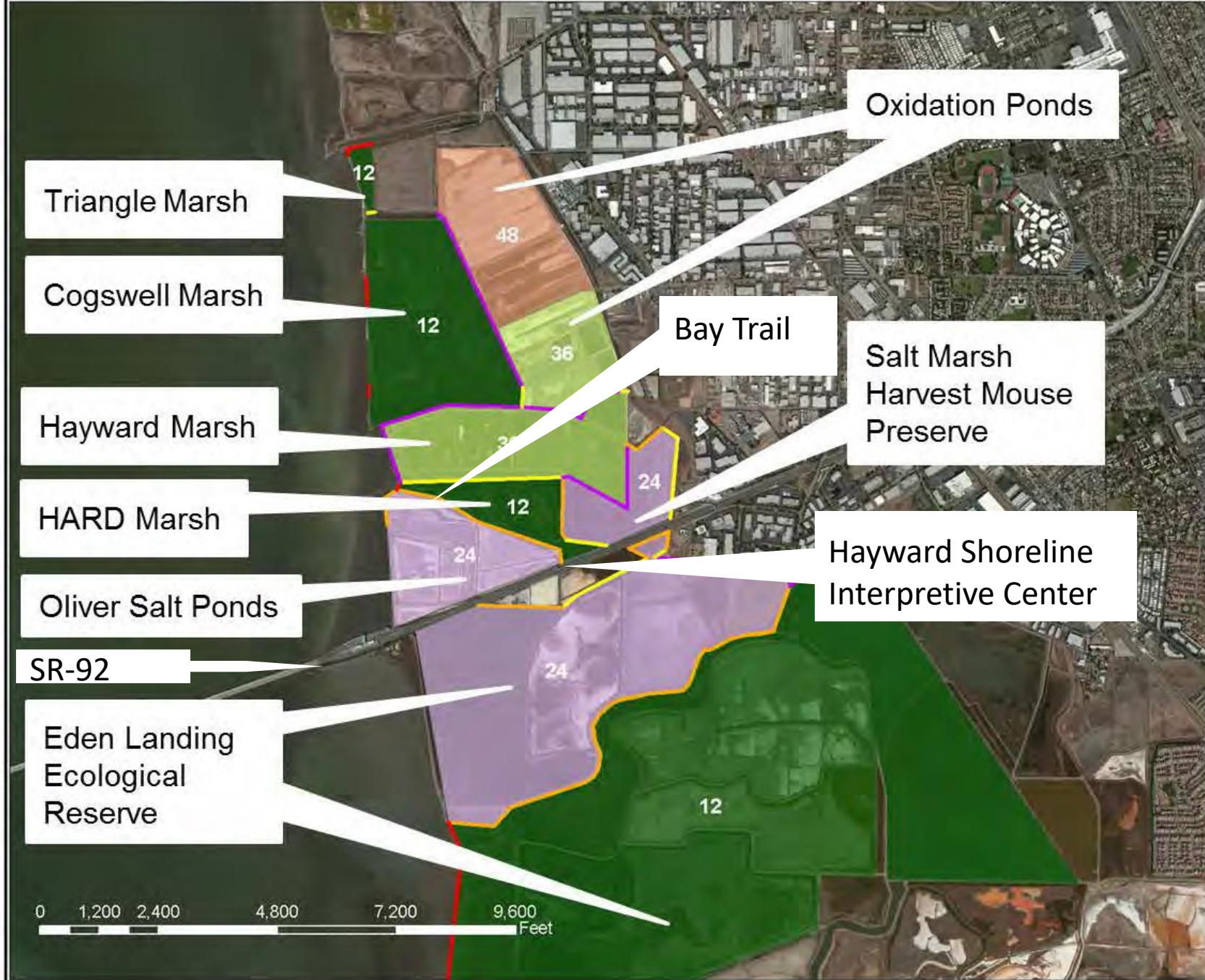
Alameda Creek

City Limits

City Limits

MTC Climate Adaptation Alameda County

Focus Area:
Hayward



Timing of Marsh Inundation

- 12-inch Scenario
- 24-inch Scenario
- 36-inch Scenario
- 48-inch Scenario

Timing of Overtopping

- 12-inch Scenario
- 24-inch Scenario
- 36-inch Scenario
- 48-inch Scenario

Source:
Hayward Shoreline Resilience Study

Note: Numbers denote the first sea level rise scenario that results in inundation (in inches above MHHW).

San Francisco Bay Conservation and Development Commission

455 Golden Gate Avenue, Suite 10600, San Francisco, California 94102 tel 415 352 3600 fax 415 352 3606

February 12, 2018

Jay Lee, Associate Planner
Hayward Area Shoreline Planning Agency
City of Hayward
777 B Street
Hayward, CA 94554

SUBJECT: Caltrans Adaptation Planning Grant from Senate Bill 1
The Road Repair and Accountably Act of 2017

Dear Mr. Lee:

On behalf of the San Francisco Bay Conservation and Development Commission (BCDC) Adapting to Rising Tides Program, I am writing to express my strong support for the Hayward Area Shoreline Planning Agency's (HASPA's) application for the California Department of Transportation (Caltrans) Adaptation Planning Grant. The Commission recognizes the critical need to plan for rising sea levels in the San Francisco Bay, and for adaptation planning processes at all scales.

The Hayward Shoreline is vulnerable to inundation by SLR and coastal storm surge that could impact critical infrastructure and resources such as the eastern approach to the Hayward-San Mateo Bridge, the Bay Trail including the pedestrian bridge over State Route 92, the Hayward Shoreline Interpretive Center, regional wastewater infrastructure, closed landfills, tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline.

Without climate adaptation planning, critical transportation systems along the Hayward Shoreline will be vulnerable to flooding from SLR and coastal storm surge. The Hayward Shoreline Resilience Study, carried out by BCDC's Adapting to Rising Tides (ART) team in collaboration with HASPA, revealed that the entrance to the Hayward-San Mateo Bridge is at risk of flooding due to sea level rise. The recently released Caltrans Climate Change Vulnerability Assessment for District 4 validated this finding. HASPA's Shoreline Master Plan will address this vulnerability by looking at SR 92 and surrounding areas, including regional mobility and the result in increased congestion on alternate routes.



Mr. Lee
Hayward Area Shoreline
Planning Agency
February 12, 2018
Page 2

The Hayward Shoreline Master Plan is a great fit for the Caltrans Adaptation Planning Grant. This collaborative planning effort will enable adaptation efforts that enhance the resiliency of the transportation system to help protect against climate impacts.

HASPA has shown a great commitment to protecting communities and other assets from future inundation due to sea-level rise. HASPA was one of the first local agencies in the country to address sea level rise with its 2010 report "Preliminary Study of the Effect of Sea Level Rise on the Hayward Shoreline" and has since collaborated with the Commission on additional adaptation studies. HASPA is well positioned to leverage preliminary planning work and partnerships to advance resilience work through this grant.

We look forward to collaborating with HASPA on this important planning effort, the Hayward Shoreline Master Plan, and I strongly support HASPA's proposal.

Sincerely,



CAREY BATHA
Program Manager
Adapting to Rising Tides

BC/cj



February 5, 2018

Hayward Area Shoreline Planning Agency
c/o Jay Lee, Associate Planner
City of Hayward
777 B Street
Hayward, CA 94554

RE: Caltrans Adaptation Planning Grant from Senate Bill 1 - The Road Repair and Accountability Act of 2017

Dear Mr. Lee:

On behalf of Bike East Bay, I am writing to express my support for the Hayward Area Shoreline Planning Agency's (HASPA's) application for the California Department of Transportation (Caltrans) Adaptation Planning Grant. Bike East Bay values the unique opportunities the San Francisco Bay Trail present in terms of green transportation and recreation, and know that to preserve it, we need to plan for resilience in the face of sea level rise (SLR).

The Hayward Shoreline is vulnerable to inundation by SLR and coastal storm surge that could impact critical infrastructure such as the eastern approach to the Hayward-San Mateo Bridge (State Route 92 [SR 92]), the Bay Trail including the pedestrian bridge over SR-92, the Hayward Shoreline Interpretive Center, regional wastewater infrastructure, closed landfills, tidal marshes and managed ponds that support Bay species and provide other ecosystem services along the shoreline.

Without climate adaptation planning, critical transportation systems along the Hayward Shoreline will be vulnerable to flooding from SLR and coastal storm surge. The recently released Caltrans Climate Change Vulnerability Assessment for District 4 highlighted that the entrance to the Hayward-San Mateo Bridge is at risk of flooding due to sea level rise. HASPA's Shoreline Master Plan will address this vulnerability by looking at SR 92 and surrounding areas, including regional mobility and the result in increased congestion on alternate routes.

The Hayward Shoreline Master Plan is a great fit for the Caltrans Adaptation Planning Grant.

This collaborative planning effort will enable adaptation efforts that enhance the resiliency of the transportation system to help protect against climate impacts. HASPA has shown a great commitment to protecting communities and other assets from future inundation due to sea-level rise. HASPA was one of the first local agencies in the country to address sea level rise with its 2010 report “Preliminary Study of the Effect of Sea Level Rise on the Hayward Shoreline” and has since collaborated with the Bay Conservation and Development Commission on additional adaptation studies. I strongly support the Hayward Area Shoreline Planning Agency’s proposal to protect the area, including the Bay Trail, from the effects of climate change.

Thank you for supporting this important project.

Sincerely,

A handwritten signature in black ink that reads "Dave Campbell". The signature is written in a cursive, slightly slanted style.

Dave Campbell
Advocacy Director

DEPARTMENT OF TRANSPORTATION

DIVISION OF TRANSPORTATION PLANNING

P.O. BOX 942873, MS-32

SACRAMENTO, CA 94273-0001

PHONE (916) 654-2596

FAX (916) 653-0001

TTY 711

www.dot.ca.gov



*Making Conservation
a California Way of Life.*

May 11, 2018

Mr. Al Mendall
HASPA Board Trustee
Hayward Area Shoreline Planning Agency
777 B St. Hayward
Hayward, CA 94541

Dear Mr, Mendall:

On behalf of the California Department of Transportation (Caltrans), Division of Transportation Planning, I am pleased to offer my congratulations to the Hayward Area Shoreline Planning Agency for the recent award of the following State transportation planning grant for fiscal year (FY) 2018–19:

Grant Program: Road Maintenance & Rehabilitation Account – Adaptation Planning Grant

Grant Program: Public Transportation Account– Adaptation Planning Grant

Grant Title: Hayward Shoreline Master Plan

Sub-recipient:

Grant Award: \$509,000

Local Match: \$175,000

Total Project Amount: \$684,000

Please see the list below which identifies specific conditions for a grantee to accept grant funding, to program funds, and to begin work. Conditions one through four must be fulfilled no later than **July 15, 2018** by submitting these items to Caltrans District staff for approval. Failure to fulfill these conditions will result in forfeiture of funds. Also note, all work must be completed no later than February 28, 2021. Final requests for reimbursements and final products must be submitted to Caltrans no later than April 28, 2021. No time extensions will be granted.

Conditions of Grant Acceptance

These State grant funds cannot be expended or reimbursed until the following conditions are satisfied:

1. Revise timeline to correct errors:
 - a. incorrect title for sub-task 1.3,
 - b. sub-tasks do not match SOW for Task 1.

Mr. Al Mendall
May 11, 2018
Page 2

2. The revised final Scope of Work, Project Timeline with the earliest start date of October 1, 2018, and Grant Application Cover Sheet are submitted to Caltrans District 4 Liaison for approval.
3. A Payee Data Record (STD. 204) is completed and submitted. Although the form indicates that government entities are not required to submit this form, it is needed to ensure payments are sent to the correct recipient.
4. If applicable, a Third Party In-kind Valuation Plan is submitted for the use of in-kind contributions to satisfy the minimum local match requirement. Third party in-kind contributions are goods and services donated from outside the grantee's agency, such as donated printing, facilities, interpreters, equipment, advertising, time and effort, staff time, and other goods and services.
5. If applicable, indirect costs must have been identified in the approved grant Scope of Work and project timeline. Please submit an Indirect Cost Allocation Plan (ICAP) to Caltrans Audits and Investigations, if needed. Instructions for submitting an ICAP are available at: <http://dot.ca.gov/audits/>.
6. A local resolution from the Hayward Area Shoreline Planning Agency governing board stating the grant project title and title of the person authorized to enter into a contract with Caltrans must be provided no later than **August 15, 2018**.
7. The Hayward Area Shoreline Planning Agency receives a fully executed contract and has been formally notified by Caltrans District staff to begin work.

The contracting process can begin once the first five conditions have been satisfied. For your convenience, a toolbox to aid you during this process is available on our website below:

<http://www.dot.ca.gov/hq/tpp/offices/orip/Grants/grants.html>.

A Quarterly Progress Report with a brief narrative of completed project activities will need to be submitted to the district grant manager once the project is under way. A Request for Reimbursement with the required local match can be submitted monthly, but must be submitted quarterly.

As a reminder, Hayward Area Shoreline Planning Agency is responsible for satisfying local match commitments in the amount shown above, including any local match amount above the minimum amount that is required with every invoice or request for reimbursement. The local match above will also be part of the Restricted Grant Agreement between Caltrans and Hayward Area Shoreline Planning Agency.

Mr. Al Mendall
May 11, 2018
Page 3

As outlined in the 2018-19 Adaptation Planning Grant Guide (page 11), grantees are required to submit case studies for the Integrated Climate Adaptation and Resiliency Program (ICARP) Adaptation Clearinghouse as part of their reporting requirements. Grantees will develop two case studies during the life of the grant:

- The Initial Case Study will be due two weeks after reception of fully executed contract from Caltrans District staff.
- The Final Case Study will be due one quarter prior to project end date.

Caltrans Headquarters staff will provide a template and further instruction to the grantee in the coming weeks.

Please contact Becky Frank, in Caltrans District 4, at (510) 286-5536, or Jelani Young, Headquarters Liaison, at (916) 651-6889 if you have any questions concerning these grant funds or program requirements.

Sincerely,



ERIN THOMPSON
Chief, Office of Regional Planning

c: Jay Lee, Associate Planner
Becky Frank, Senior Transportation Planner, Caltrans, District 4
Dick Fahey, Senior Transportation Planner, Caltrans, District 4
Jelani Young, Associate Transportation Planner, Caltrans, Headquarters



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-470

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT

PG&E's Rule 20A Program Audit - Amendment to Professional Services Agreement with Mikkelsen & Associates, LLC.

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to execute an Amendment to the Professional Services Agreement with Mikkelsen & Associates, LLC., in an amount not-to-exceed \$75,000.

SUMMARY

Mikkelsen & Associates, LLC., (Mikkelsen) has provided consulting services to the City beginning in 2014 to obtain additional PG&E Rule 20A Program (Rule 20A) allocation credits for work on the replacement of overhead with underground electric utilities. Sources of the additional credits were:

- PG&E's calculation of credits for previously completed Rule 20A projects;
- Purchase of other local agencies' unused Rule 20A credits; and
- A return to the City's pre-2011 allocation allotment that was nearly twice the current amount.

The California Public Utilities Commission (CPUC) 2017 General Rate Case (GRC) decision required an overall audit of the Rule 20A. Additional consulting services by Mikkelsen are necessary to provide support and representation for the City in the audit.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT: PG&E's Rule 20A Program Audit – Amendment to Professional Services Agreement with Mikkelsen & Associates, LLC.

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to negotiate and execute an Amendment to the Professional Services Agreement with Mikkelsen & Associates, LLC., in an amount not-to-exceed \$75,000.

SUMMARY

Mikkelsen & Associates, LLC., (Mikkelsen) has provided consulting services to the City beginning in 2014 to obtain additional PG&E Rule 20A Program (Rule 20A) allocation credits for work on the replacement of overhead with underground electric utilities. Sources of the additional credits were:

- PG&E's calculation of credits for previously completed Rule 20A projects;
- Purchase of other local agencies' unused Rule 20A credits; and
- A return to the City's pre-2011 allocation allotment that was nearly twice the current amount.

The California Public Utilities Commission (CPUC) 2017 General Rate Case (GRC) decision required an overall audit of the Rule 20A. Additional consulting services by Mikkelsen are necessary to provide support and representation for the City in the audit.

BACKGROUND

Since 1967, California's electric utilities had a program to replace overhead distribution lines with underground facilities. Undergrounding projects are undertaken in partnership with local municipal jurisdictions. The utilities allocate credits for future work to each jurisdiction as described in the Rule 20A tariff. These funds come from PG&E's distribution capital expenditures. Local agencies form Utility Underground Districts within eligible areas, usually well-travelled streets, to redeem these credits. When a project is completed, PG&E deducts project costs from the credit account balance. As part of their 2011 General Rate Case (GRC), PG&E convinced the CPUC to reduce the credit allocations by nearly 50%.

On December 14, 2010, in anticipation of the Mission Boulevard Corridor Improvements Phase 2 project, Council adopted an ordinance to form Underground District No. 30 and use

the Rule 20A funds allocated each year to the City by PG&E to replace existing overhead utility facilities with underground facilities. Because the CPUC reduced local agency Rule 20A allocations, the City cannot complete the undergrounding work in Phase 2 using Rule 20A funds exclusively.

In August 2014, the City entered into a professional services agreement with Mikkelsen in the amount of \$25,000 for support services to obtain additional Rule 20A allocation credits. This effort resulted in a successful transfer of allocation credits from the City of Corcoran and a settlement negotiated through the CPUC complaint process.

The City and other local agencies also worked with the CPUC to modify PG&E's 2017 GRC recommendations for Rule 20A. On March 3, 2015, Council authorized the City Manager to execute the first agreement amendment in the amount of \$75,000 for Mikkelsen to perform additional consulting services to represent the City in the modification of the GRC.

The CPUC Board did not agree to the Administrative Law Judge's recommendations to reinstate the pre-2011 Rule 20A allocation levels. However, Mikkelsen successfully negotiated an order from the CPUC that requires PG&E to establish a fund dedicated to the Rule 20A program and a dedicated Rule 20A fund to perform an overall audit of the program and PG&E's management practices.

DISCUSSION

Local agencies were concerned over several issues related to Rule 20A conversions, including the cumulative amount of unredeemed work credits, methods of allocating new work credits to jurisdictions, reasonableness of PG&E's forecasts of expenditures and additions, and PG&E's ability to undertake conversions in a timely manner. In response to these concerns, the CPUC required an audit of the program. In accordance with CPUC's Decisions 17-05-013 and 18-03-022, PG&E, the City, and the CPUC's Energy Division are jointly developing requests for proposals from qualified auditors and consultants to conduct an audit regarding the replacement of overhead lines with underground electric facilities.

The scope of the audit will include the following items:

1. Ensure that PG&E has fully accounted for annual Rule 20A budgeted amounts;
2. Ensure that localities will receive the full benefit of these funds;
3. Assess progress in implementing steps that PG&E has taken to increase its capability to perform Rule 20A conversions;
4. Assess PG&E's processes to verify eligibility of Rule 20A projects; and
5. Verify the reliability of Rule 20A project cost estimates.

Mikkelsen's original agreement and first amendment did not include support and representation for the City in the audit; therefore, this second amendment is necessary. The audit will take approximately 12 months to complete. Staff recommends that Council authorizes the City Manager to execute an additional amendment to the existing agreement

with Mikkelsen to increase the not-to-exceed amount by an additional \$75,000, from \$100,000 to \$175,000.

ECONOMIC IMPACT

There is no economic impact associated with this item.

FISCAL IMPACT

Rule 20A is related to the Mission Boulevard Corridor Improvements Phases 2 and 3 projects. The Adopted FY19 Capital Improvement Program (CIP) includes a total of \$45,893,000 for the completion of Phases 2 and 3 in Route 238 Corridor Improvement – Fund 410. There are adequate funds in the project for Mikkelsen to provide the additional support services in the amount of \$75,000. Decisions related to the Rule 20A program will affect future funding of efforts to underground overhead utilities.

STRATEGIC INITIATIVES

This agenda item pertains to the professional services agreement with Mikkelsen and does not directly relate to the Council's Strategic Initiatives.

SUSTAINABILITY FEATURES

The action taken for this report will not result in physical development, purchase, or service, or a new policy/legislation.

PUBLIC CONTACT

No public contact has occurred associated with this action.

NEXT STEPS

If approved by Council, staff will amend the Professional Services Agreement with Mikkelsen in a form approved by the City Attorney.

Prepared by: Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Interim Director of Public Works

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE AMENDMENT NO. 2 TO THE PROFESSIONAL SERVICES AGREEMENT WITH MIKKELSEN AND ASSOCIATES, LLC., FOR ADDITIONAL PROFESSIONAL SERVICES RELATED TO PG&E'S RULE 20A PROGRAM

WHEREAS, The aforesaid parties have entered into that certain Agreement dated the 19th day of August 2014, entitled "Agreement between the City of Hayward and Mikkelsen & Associates, LLC for Professional Services Related to PG&E's Rule 20A Program" and

WHEREAS, The City and the Consultant desire to amend the Agreement in certain respects to provide additional services for the audit of the Rule 20A program,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to negotiate and execute, on behalf of the City of Hayward, an amendment to the agreement with Mikkelsen and Associates, LLC., for additional services in an amount not-to-exceed \$75,000 associated with PG&E's Rule 20A Program in a form approved by the City Attorney.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-494

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Utilities & Environmental Services

SUBJECT

Advanced Metering Infrastructure (AMI) Project: Authorization to Execute an Amendment to the AMI System Material Supply Contract to Purchase Additional Water Meters and Related Equipment

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to amend the contract with Delta Engineering Sales, LLC, to increase the contract amount by \$748,182 to a not to exceed amount of \$10,248,182, to purchase additional water meters and related equipment for the Advanced Metering Infrastructure Project.

SUMMARY

In April 2016, the City Council authorized execution of contracts to purchase and install an Advanced Metering Infrastructure (AMI) Project. The AMI Project will replace the City's aging water meters, eliminate the need for manual meter reading, and provide customers with information to better manage their water use. As of the end of June 2018, approximately 33,400 meters, or close to 98%, of the City's meters have been replaced. The City's contract with Delta Engineering Sales, LLC (Delta Engineering) for purchase of water meters and related equipment was based on the quantities and sizes of water meters identified in 2013, which has since changed. Staff is requesting Council approval to increase the contract amount with Delta Engineering by \$748,182 to a not to exceed amount of \$10,248,182, to purchase additional water meters and related equipment to complete installation of the AMI Project.

ATTACHMENTS

Attachment I Staff Report
Attachment II Resolution



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Utilities & Environmental Services

SUBJECT: Advanced Metering Infrastructure (AMI) Project: Authorization to Execute an Amendment to the AMI System Material Supply Contract to Purchase Additional Water Meters and Related Equipment

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to amend the contract with Delta Engineering Sales, LLC, to increase the contract amount by \$748,182 to a not to exceed amount of \$10,248,182, to purchase additional water meters and related equipment for the Advanced Metering Infrastructure Project.

SUMMARY

In April 2016, the City Council authorized execution of contracts to purchase and install an Advanced Metering Infrastructure (AMI) Project. The AMI Project will replace the City's aging water meters, eliminate the need for manual meter reading, and provide customers with information to better manage their water use. As of the end of June 2018, approximately 33,400 meters, or close to 98%, of the City's meters have been replaced. The City's contract with Delta Engineering Sales, LLC (Delta Engineering) for purchase of water meters and related equipment was based on the quantities and sizes of water meters identified in 2013, which has since changed. Staff is requesting Council approval to increase the contract amount with Delta Engineering by \$748,182 to a not to exceed amount of \$10,248,182, to purchase additional water meters and related equipment to complete installation of the AMI Project.

BACKGROUND

The City's water customers are billed for actual water use as measured by water meters, which are read on a bimonthly basis. The City has over 34,000 customer endpoints (water meters).

Even with safety procedures in place, City meter readers have been prone to frequent injuries due to the repetitive nature of the work. Bimonthly manual meter reading also provides customers with limited and outdated consumption information, which can be inefficient in

terms of conservation efforts because customers are unaware of their consumption throughout the bill period; and leaks can go undetected for weeks or months.

In recent years, some water agencies have started to implement a technology known as Advanced Metering Infrastructure (AMI). AMI enables two-way communication over a fixed network between the utility system and metering endpoints (customers). This allows meters to be read, monitored, and managed from a remote, central location rather than relying on the physical read of a meter in the field by an employee.

AMI systems can provide many benefits, including allowing meters to be read more frequently (e.g. daily or hourly). The resultant interval data can be used for purposes beyond billing, such as consumption reporting, leak detection, tamper alerts, as well as to populate a customer web portal, which allows customers to see detailed water usage information and better understand and manage their water use.

The City's meter stock that has been largely replaced by the AMI Project was, on average, over forty years old, and needed replacement independent of how the meters are read. The AMI installation process provided the opportunity to update the current meters throughout the service area and allowed the City to establish a comprehensive meter inventory with GPS coordinates for mapping purposes. AMI data also provides the City with the opportunity to consider transitioning to monthly utility billing, which may be a better option for customers, and frees up staff resources to deploy towards preventative maintenance activities and customer service.

In 2013, staff began to study the feasibility of implementing AMI in Hayward. Given the significant investment of resources, staff determined that it would be in the City's best interest to pilot-test three different AMI systems and to obtain equipment pricing for City-wide implementation of various systems. Based on the results of the pilot test, the City selected Aclara Technologies LLC (Aclara) to implement the City-wide AMI program.

On April 5, 2016, Council approved execution of an installation contract with Aclara in an amount not to exceed \$3,113,000 and a material purchasing contract with Delta Engineering in an amount not to exceed \$9,500,000, to implement the AMI Project. Contracts with Aclara and Delta Engineering were executed by the City on June 28, 2016 and June 15, 2016, respectively. The Aclara contract provides management, AMI infrastructure project materials and equipment (i.e. data collectors units (DCUs)), AMI software, and installation labor to accomplish meter replacement and conversion to AMI City-wide. The Delta Engineering contract provides for the purchase of project materials, including meters, meter transmission units (MTUs), handheld field programmers, and meter box lids.

DISCUSSION

As of the end of June, approximately 33,400 meters, or close to 98%, of City meters have been replaced with AMI meters. The contractual quantity of meters and related equipment required to be supplied by Delta Engineering were based on City records and estimates from the 2013 AMI feasibility study. Since installation began, there have been differences between

the quantities, types, and models of meters and lids included in Delta Engineering’s contract and the quantities of materials needed to complete installation of AMI meters. The reasons for these differences include:

- Added services due to new developments
- Dual and compound meters were originally counted as one single meter
- Minor miscount of total meter sizes and numbers
- Meter brands and models are different from City records, which requires additional retrofitting such as installing spacers
- Some meter box lids specified did not provide the correct fit, and the lid vendor was replaced

In addition, upon project acceptance of the AMI Project, City staff will take over responsibility for the AMI system and begin installing AMI meters for new development. Staff is recommending that the City purchase additional meters and related materials to be able to maintain a small inventory for repairs, replacements, and installations for new developments. Utilizing the existing contract with Delta Engineering to stock AMI meters would allow the City to take advantage of lower cost bulk pricing. In the future, after the initial inventory provided under the AMI Project is exhausted, staff would need to solicit quotes and purchase meters and materials directly from manufacturers.

A summary of the differences between the Delta Engineering contract and the quantity of materials needed to both complete installation of AMI meter replacements and provide a post-installation inventory of AMI meters is summarized in the table below.

MATERIAL DESCRIPTION	INITIAL QUANTITY (A)	ACTUAL QUANTITY (B)	INVENTORY REQUIRED (C) ¹	DIFFERENCE IN QUANTITY (D)= (B) + (C) – (A)	COST DIFFERENCE (\$)
MTU	34,225	35,089	719	1,583	\$179,584
Antenna Kit	0	655	0	655	\$18,340
Panasonic Toughbook	6	6	0	0	\$1,914 ²
Meters (5/8” to 8”)	34,225	33,239	590	(396)	\$199,194 ³
Meter Registers ⁴	0	2,112	224	2,336	\$162,350
Misc. Clips & Splice	0	2,350	0	2,350	\$4,913
Meter Box Lids	31,931	33,075	700	1,844	\$113,871
Total	-	-	-	-	\$748,182 (incl. 10% tax)

Notes:

1. Total cost for proposed inventory is \$233,005.55, including tax.
2. The City requested an upgrade to the Toughbooks to automate scanning of meter numbers, which saves time and eliminates the potential for manual error.
3. The total meter count decreased since newer meters only require retrofitting registers. However, the total cost of meters increased by \$199,194, due to a higher number of larger-sized meters than was originally estimated.
4. These meters were installed within the last five years. They can be retrofitted with new registers instead of replacing the meters, resulting in a cost savings.

Staff is requesting to increase the contract amount of Delta Engineering's contract by \$748,182 (\$680,166 plus 10% tax) to a not to exceed amount of \$10,248,182 for purchase of additional AMI meters and related equipment.

ECONOMIC IMPACT

The economic benefits of AMI to customers include greater control over water consumption, given increased interval data and a future customer portal and smartphone application, including prompt water leak notification. Most customers will also benefit from having more accurate meters because they will not be subsidizing a small percentage of customers with water meters which may be reading low due to malfunction, and these customers will more equitably share their proportional cost of water. The system should also aid the community in achieving greater water conservation results over time.

Over the next few years, there will be moderate increases in water service costs for the wholesale replacement of all water meters in the City.

FISCAL IMPACT

The total estimated costs for the AMI Project are as follows:

Project Administration (estimate)	\$	60,000
Pilot Study (actual)	\$	62,741
Purchase and Installation of AMI System (Aclara contract)	\$	3,113,000
Purchase of Project Materials (Delta Engineering contract)	\$	10,248,182
Customer Web Portal Development (estimate)	\$	<u>100,000</u>
Total:	\$	\$13,583,923

The total estimated project cost for the AMI Project is \$13,583,923, which includes an increase in the Delta Engineering contract amount of \$748,182 for purchase of additional water meters and related equipment to a not to exceed total amount of \$10,248,182. The total estimated project cost also includes \$100,000 to secure the services of a customer web portal vendor in fall 2018.

The adopted FY 2019 Capital Improvement Program (CIP) includes \$13,500,000 in the Water Replacement Fund for implementation of the AMI Project. The total project cost will be determined after vendor proposals are received for the customer web portal in late 2018. If additional monies are needed, staff will ask Council to consider the increased funding in the Water Replacement Fund. Implementation of the AMI Project will not utilize any General Fund monies.

STRATEGIC INITIATIVES

This agenda item supports the Complete Communities Strategic Initiative. The purpose of the Complete Communities initiative is to create and support structures, services, and amenities to provide inclusive and equitable access with the goal of becoming a thriving

and promising place to live, work and play for all. This item supports the following goal and objective:

Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.

Objective 4: Create resilient and sustainable neighborhoods

The AMI Project will replace the City's aging water meter infrastructure and provide customers with the ability to better manage their water use, further supporting the goals of the City Council.

SUSTAINABILITY FEATURES

The AMI system promotes efficient water use and water conservation. The more frequent water consumption data will provide detailed information to help measure the overall effectiveness of targeted conservation initiatives. This information can be used to inform customers about potential leaks or overly high consumption. Analyzing data by frequent time intervals could also enable the City to look at consumption profile data for education and awareness related to conservation. Customers will also be able to be notified of unusual increased or continuous water usage, which could be the result of a leak. Remote notification of leaks allows for the ability to alert customers to an issue before substantial water waste or excessive charges occur.

The AMI Project will also eliminate the need for manual meter reading, which reduces the number of vehicle miles traveled by City staff, furthering the City's Climate Action Plan goals of reducing greenhouse gas emissions.

PUBLIC CONTACT

The AMI project is arguably one of the most visible and customer-centric projects that the Utilities and Environmental Services Department has implemented in many years. The project affects every customer of the Hayward water system, and therefore customer outreach is a key component to a successful implementation.

In addition to having information about the project on the City's webpage, <https://www.hayward-ca.gov/your-government/AMI>, in advance of having a meter replaced, each customer also receives a notification letter regarding the benefits of the project and explaining the process and what to expect during and after the replacement has been completed. A typical meter replacement for a residential customer can take less than thirty minutes, during which time the water service to the customer is shut off. On the day of the replacement, the contractor will attempt to contact the customer by knocking on the door in advance of beginning work to inquire if it is a good time for them to complete the replacement. If the customer expresses that they would prefer another time, the contractor will work with them to find an agreeable alternative. If the customer is not present, or does not answer the door, the contractor will verify if the water is running by checking the meter

for movement, which can indicate that someone may be using the water but cannot come to the door, before shutting off the water. To replace a large commercial meter, it can take a few hours or more, therefore appointments will be made to minimize any impact to operations.

A few customers have used social media and other means to express their concerns regarding potential "high reads" related to AMI. In each case, staff reviews the specific concerns. In almost all cases staff has been able to show that the "high reads" are related to actual high consumptions and not a water meter or AMI malfunction. On occasion when the reason for the high read may be related to a leak or field installation issues, staff assists the customer to apply for a rebate.

A key component of the AMI Project is the development of a customer engagement web portal. The interval consumption data generated from this project will be used to populate a customer engagement web portal, which would allow customers to see detailed water usage information and better understand and manage their water use. These portals, which can be accessed on a computer or smart phone, are becoming an increasingly popular tool to help customers monitor their consumption and allow the utility to communicate directly and in a timely manner with their customers. Staff had anticipated releasing a Request for Proposals (RFP) to select the customer engagement web portal vendor last year, but staffing challenges within the department, along with the desire to obtain input from Hayward water customers on the features they would most like to see included in the portal, have pushed back the release of the RFP. Staff currently anticipates releasing the RFP for the customer engagement web portal in late fall 2018.

NEXT STEPS

If Council approves the recommendation, staff will increase the contract amount with Delta Engineering by \$748,182 to a not to exceed amount of \$10,248,182, to purchase additional meters and related equipment for the AMI Project.

At the current pace, all City meters are expected to be replaced by mid-August. After installation is completed, Aclara will perform system acceptance testing to ensure the functionality and accuracy of the system. Final acceptance of the project is anticipated by end of 2018.

Prepared by: Jimmy Chen, Senior Utilities Engineer

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO AMEND THE CONTRACT WITH DELTA ENGINEERING SALES, LLC, TO INCREASE THE CONTRACT AMOUNT BY \$748,182 TO A NOT TO EXCEED AMOUNT OF \$10,248,182, FOR PURCHASE OF ADDITIONAL WATER METERS AND RELATED EQUIPMENT

WHEREAS, the Advanced Metering Infrastructure (“AMI”) Project No. 07025 would replace the City’s aging water meter infrastructure, eliminate the need for manual meter reading, and promote water use efficiency and conservation; and

WHEREAS, the City entered into a contract with Delta Engineering Sales, LLC on June 15, 2016 for the purchase of metering and transmitting equipment for the AMI Project in an amount not to exceed \$9,500,000; and

WHEREAS, the City requires additional water meters and related equipment to complete the AMI Project and provide an initial inventory of materials for future repairs, replacements, and installations of AMI meters by City staff; and

WHEREAS, Delta Engineering can provide the additional water meters and related equipment required by the City at a cost of \$748,182; and

WHEREAS, the Capital Improvement Program Water Replacement Fund includes sufficient funding for the City to purchase additional water meters and related equipment from Delta Engineering, LLC.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to amend the agreement with Delta Engineering Sales, LLC, to increase the contract amount by \$748,182, to a total not to exceed amount of \$10,248,182, for the purchase of additional metering and transmitting equipment for the Advanced Metering Infrastructure Project No. 07025.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-499

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT

Municipal Parking Lot No. 2 Improvement Project - Rejection of Lone Bid

RECOMMENDATION

That Council adopts the attached resolution rejecting the lone bid received for the Municipal Lot No. 2 Improvement Project.

SUMMARY

The City received one bid for the Municipal Lot No. 2 Improvement Project (Muni Lot 2) that was significantly higher than the engineer's estimate. Staff requests that Council reject this bid and combine the project with the Municipal Parking Lot No. 1 Improvement Project to potentially increase interest from contractors with the goal of receiving lower bids.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	Location Map



DATE: July 24, 2017

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT: Municipal Parking Lot No. 2 Improvement, Project No. 05248 – Rejection of Lone Bid

RECOMMENDATION

That Council adopts the attached resolution rejecting the lone bid received for the Municipal Parking Lot No. 2 Improvement Project.

SUMMARY

The City received one bid for the Municipal Lot No. 2 Improvement Project (Muni Lot 2) that was significantly higher than the engineer's estimate. Staff requests that Council reject this bid and combine the project with the Municipal Parking Lot No. 1 Improvement Project to potentially increase interest from contractors with the goal of receiving lower bids.

BACKGROUND

Muni Lot 2 is a high utilization parking lot in the Downtown area. It requires additional accessible parking stalls to comply with the Americans with Disability Act (ADA) regulations. In addition to ADA stalls, this project includes construction and reconstruction of existing curb ramps, signage installation, striping of pedestrian crossings, restriping with wheel stops, parking light upgrades, additional landscape planters, asphalt pavement rehabilitation, and utility provisions for future Electric Vehicle (EV) charging stations.

DISCUSSION

The pre-bid conference for this project was mandatory due to the complexity of the work and construction staging in maintaining minimum impact on the availability of parking stalls during business hours. Four (4) contractors attended the pre-bid conference on July 3, 2018. However, only one (1) bid was received. This lone bid was received from Golden Bay Construction, Inc., of Hayward, California, at \$626,682.50 which is 109.8% above the engineer's estimate of \$298,752.

The lack of responsive bids was partly due to an abundance of ongoing regional construction projects. As a result, potential bidders were unable to submit bids in time. To obtain more favorable construction unit prices and reductions in overall cost, staff recommends rejecting

the lone (high) bid received and combining Muni Lot 2 with the Municipal Parking Lot No. 1 Improvement Project, which is currently in the design phase in order to potentially benefit from economies of scale.

ECONOMIC IMPACT

These projects are fully funded by the City's Capital Improvement Program without any additional contributions from the public.

FISCAL IMPACT

Rejecting the submitted bid will not have a direct fiscal impact. It will, however, position the City to combine construction projects and re-bid them at a more convenient time for contractors, which staff predicts will result in more cost-efficient bids.

Budget Appropriations

Municipal Parking Lot No. 2 Improvement Project (#05248)	Fund 450	\$ 500,000
Municipal Parking Lot No. 1 Improvement Project (#05286)	Fund 450	\$ 650,000
	Total	<hr/> \$1,150,000

The recommended FY 2019 Capital Improvement Program includes funding for both projects in the Street System Improvement Fund.

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

SUSTAINABILITY FEATURES

The action taken for this report will not result in a physical development, purchase or service, or a new policy or legislation. Any physical work will depend upon future Council action.

PUBLIC CONTACT

If Council adopts the attached resolution, staff will send a letter notifying Golden Bay Construction, Inc., that their bid was rejected.

NEXT STEPS

The tentative schedule for the combined project is as follows:

Prepare Construction Bid Documents	October 2018
Advertise for Construction Bids	January 2019
Award Construction Contract	February 2019
Begin Construction	March 2019
Complete Construction	June 2019

Prepared by: Hector M. Leuterio, Assistant Civil Engineer
Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Interim Director of Public Works

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-_____

Introduced by Council Member _____

RESOLUTION REJECTING THE LONE BID RECEIVED FOR THE MUNICIPAL PARKING LOT NO. 2 IMPROVEMENT PROJECT, PROJECT NO. 05248

WHEREAS, By Resolution on April 3, 2018, the City Council approved the plans and specifications for Municipal Parking Lot No. 2 Improvement, Project No. 05248, and called for bids to be received on July 10, 2018; and

WHEREAS, On July 10, 2018, one bid was received from Golden Bay Construction, Inc., in the amount of \$626,682.50, which is 109.8% above the engineer's estimate of \$298,752.36; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the lone bid is hereby rejected for Municipal Parking Lot No. 2 Improvement, Project #05248.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

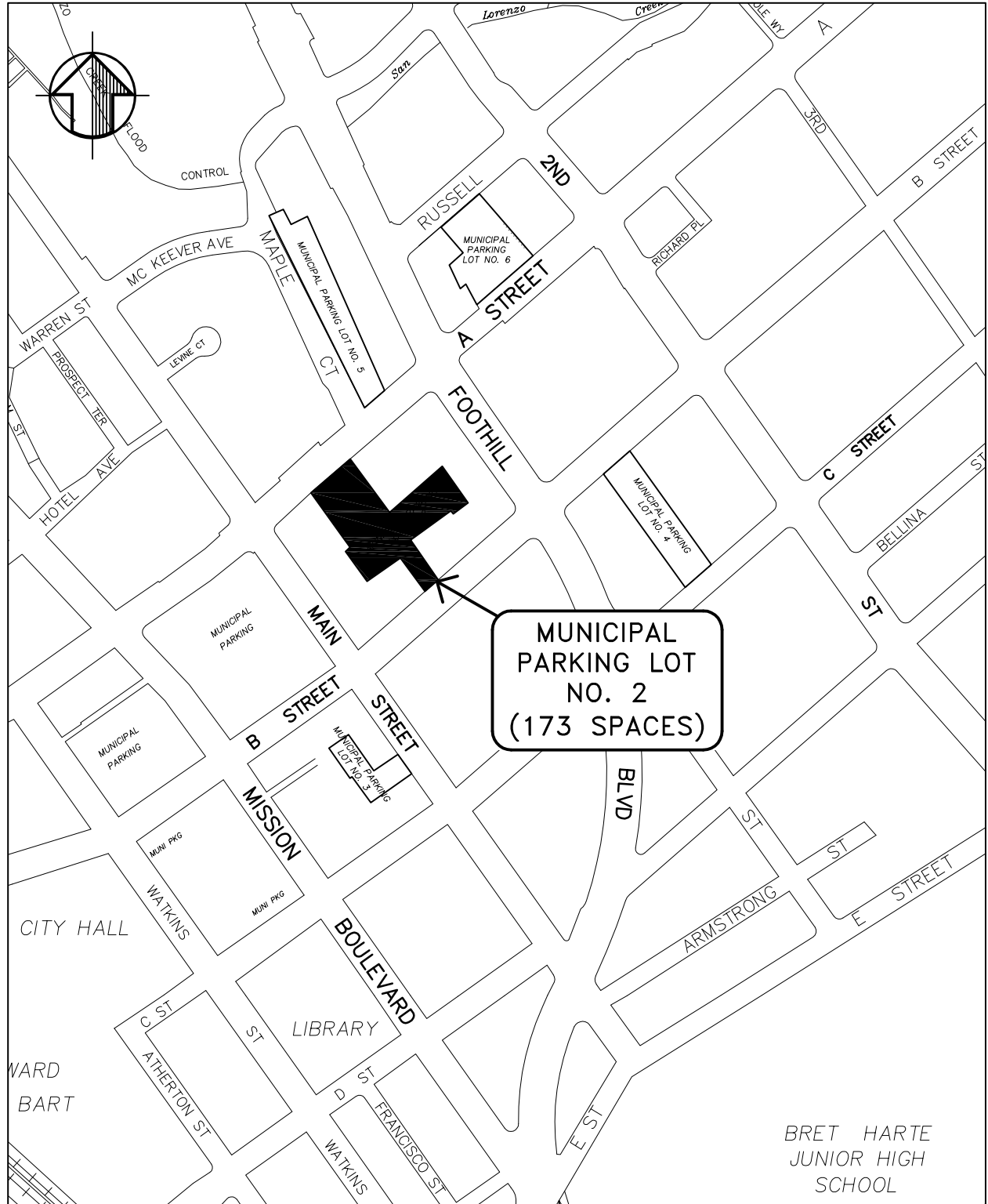
ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



**MUNICIPAL PARKING LOT NO. 2
IMPROVEMENT PROJECT
PROJECT NO. 05248
LOCATION MAP**



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-501

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT

Sulphur Creek Mitigation Design Project at Hayward Executive Airport - Authorization to Execute a Professional Services Agreement with Kimley-Horn and Associates, Inc., and Acceptance of FAA Grant for Design

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to negotiate and execute a Professional Services Agreement with Kimley-Horn and Associates, Inc. (Kimley-Horn) in an amount not-to-exceed \$444,000 for Sulphur Creek Mitigation Design Project at Hayward Executive Airport; and authorizing the City Manager to accept a grant from the Federal Aviation Administration (FAA) for this project.

SUMMARY

The FAA determined that a portion of Sulphur Creek traversing through Hayward Executive Airport poses a potential safety hazard to aircraft that may veer off taxiways or runways in an emergency or for other reasons. The solution is to enclose the open channels of the creek as well as grade the immediate areas surrounding the channels.

The three-phased project is entering the second phase. Following the FAA's consultant selection criteria, staff recommends that Council approves the negotiation and execution of a professional services agreement with Kimley-Horn for the Sulphur Creek Mitigation design project in the amount of \$444,000. Staff further recommends that the City Manager be authorized to accept a grant from the FAA, which will reimburse the City for 90% of the total cost for this project.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution

File #: CONS 18-501



DATE: July 17, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT: Sulphur Creek Mitigation Design Project at Hayward Executive Airport –
Authorization to Execute a Professional Services Agreement with Kimley-Horn
and Associates, Inc., and Appropriation of Funds

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to negotiate and execute a Professional Services Agreement with Kimley-Horn and Associates, Inc. (Kimley-Horn) in an amount not-to-exceed \$444,000 for Sulphur Creek Mitigation Design Project at Hayward Executive Airport; and authorizing the City Manager to accept a grant from the Federal Aviation Administration (FAA) for this project.

SUMMARY

The FAA determined that a portion of Sulphur Creek traversing through Hayward Executive Airport poses a potential safety hazard to aircraft that may veer off taxiways or runways in an emergency or for other reasons. The solution is to enclose the open channels of the creek as well as grade the immediate areas surrounding the channels.

The three-phased project is entering the second phase. Following the FAA's consultant selection criteria, staff recommends that Council approve the negotiation and execution of a professional services agreement with Kimley-Horn for the Sulphur Creek Mitigation design project in the amount of \$444,000. Staff further recommends that the City Manager be authorized to accept a grant from the FAA, which will reimburse the City for 90% of the total cost for this project.

BACKGROUND

A portion of Sulphur Creek crosses Hayward Executive Airport and flows to the San Francisco Bay. Approximately 412 feet of the creek flows in an open channel on the airfield within the Runway Safety Area of Runway 10L-28R. This poses a potential safety hazard in the event that an aircraft leaves the runway pavement due to an unforeseen incident or accident. Under

these circumstances, the aircraft could impact the open channel with the possibility of significant damage to the aircraft and injury to its occupants.

In 2007, the FAA Runway Safety Action Team (RSAT) recognized this potential safety issue and recommended that the City take steps to cover the open portions of the creek near the runway and grade the immediate area to a smooth surface. Airport staff subsequently contacted the FAA Airports District Office in San Francisco (SFO-ADO) and determined this project would be eligible for federal grant funding, under the Airport Improvement Program (AIP). However, the project and contract are contingent on receiving the grant from the FAA.

DISCUSSION

The purpose of a Runway Safety Area is to provide a prepared surface in the turf area surrounding a runway to reduce damage in the event of an aircraft undershoot, overshoot, or excursion from the runway. Enclosing the open channel in the Runway 10L-28R Runway Safety Area and grading the immediate area will provide important safety benefits to Airport users and the City. Since this potential safety hazard at the Airport was identified and funding is available to mitigate the hazard, staff recommends that this issue be addressed.

Before this safety improvement project can be constructed, it is necessary to complete an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA), prepare environmental documentation in compliance with the California Environmental Quality Act (CEQA), develop plans and specifications, and define mitigation steps necessary to move Sulphur Creek into enclosed culverts.

City staff selected a design consultant using a qualifications-based selection process in accordance with FAA Advisory Circular 150/5100-14E. A Request for Qualifications was emailed to a list of 12 consultants and was also available on the City's website from September 20 to October 30, 2017. Staff received a total of two proposals, which were evaluated according to objective criteria. Staff determined Kimley-Horn to be the most qualified firm because they have extensive experience designing similar projects for several similarly-sized airports in the Bay Area. Furthermore, Kimley-Horn demonstrated knowledge and experience with FAA standards for such projects.

In accordance with FAA funding procedures, this project must be completed in three phases. The first phase consisted of an environmental review and preliminary design; the NEPA documentation for this phase was approved by the FAA in May 2016. The delay between NEPA approval and the commencement of the design phase is primarily because funding for the Sulphur Creek project was deferred until FY 2018 to permit the urgent pavement rehabilitation of Runway 10R-28L in late 2016. The delay was also the result of personnel changes, and the research time necessary to become acquainted with the project and draft an RFQ for design services. The next two phases, which include a California Environmental Quality Act (CEQA) review, design and construction, each involve separate grant approvals. Staff estimates a total of \$3.7 million for the remaining two phases of the project.

Based on the scope of work for the CEQA/design phase and subsequent negotiations, the consultant submitted a cost proposal of \$444,000. The City, SFO-ADO, and a required Independent Fee Estimate determined the cost proposal to be reasonable. The cost of the CEQA will be directly related to the extent of work needed to meet the CEQA requirements. Staff recommends approval of a contract in an amount not-to-exceed \$444,000, inclusive of any additional services.

ECONOMIC IMPACT

No economic impact is associated with this item.

FISCAL IMPACT

The Design Phase project costs are as follows:

Consultant	\$444,000
Administration	<u>\$156,000</u>
TOTAL:	\$600,000

Most of the cost for the final two phases of the project will be reimbursed through grants from the FAA covering 90 percent of the actual cost; another match of 5% will be provided through Caltrans’ Division of Aeronautics.

The adopted FY 2019 Capital Improvement Program (CIP) includes \$600,000 for the design phase and \$3.1 million for the construction phase, or \$3.7 million total. Staff anticipates that the FAA will reimburse \$3.33 million of this total. A summary of funding sources is noted in the table below:

AGENCY	AMOUNT	PROJECT PHASE
FAA (90%)	\$ 540,000	Design
FAA (90%)	\$2,790,000	Construction
Caltrans (5%)	\$ 185,000	Construction
City of Hayward (match of 5%)	\$ 185,000	Design and Construction
Total	\$3,700,000	

STRATEGIC INITIATIVES

This agenda item is a safety and maintenance-related item and does not directly support any of the three Strategic Initiatives.

SUSTAINABILITY FEATURES

The Airport is committed to developing projects that are environmentally responsible. Therefore, staff will ensure that all plans proposed by the consultant incorporate features that are in line with the City's sustainability guidelines. It should be noted that the channel can be enclosed through one of two mitigation measures: 1) bank payments via mitigation credits; or 2) mitigate the creek in an alternate location. Kimley-Horn will review all available options and recommend the most effective process.

PUBLIC CONTACT

Council Airport Committee (CAC) discussed the Sulphur Creek project on several occasions since 2008. Last discussions occurred during CAC meetings held on April 23, 2015 and April 28, 2016. As part of the scope of work, the consultant will prepare a public outreach plan to include key messages, core audiences, and public involvement activities to support the development and release of the draft design. The public outreach plan will ensure that interested members of the public will have an opportunity to provide input, the interests of participants will be communicated to decision makers, and that participants are provided with information needed to participate in a meaningful way.

NEXT STEPS

Award Contract and Authorize Acceptance of Grant	July 17, 2018
Complete CEQA Documentation and Final Design	November 2019
Begin Construction	April 2020
Complete Construction	July 2020

Prepared by: Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Interim Director of Public Works

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. ~~18~~-

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE A CONTRACT WITH KIMLEY-HORN AND ASSOCIATES, INC. FOR AIRPORT CONSULTING SERVICES; AND AUTHORIZING THE CITY MANAGER TO ACCEPT AND EXECUTE A GRANT FROM THE FEDERAL AVIATION ADMINISTRATION FOR DESIGN OF THE SULPHUR CREEK PROJECT AT HAYWARD EXECUTIVE AIRPORT

WHEREAS, the City of Hayward (“City”) owns and operates Hayward Executive Airport (“Airport”); and

WHEREAS, a portion of Sulphur Creek crosses Airport property and flows in an open channel within the Runway Safety Area; and

WHEREAS, this poses a potential safety hazard in the event an aircraft on a runway leaves the pavement and impacts the open channel; and

WHEREAS, in 2007 the Federal Aviation Administration (FAA) recognized this potential safety hazard and recommended that the City take steps to cover the open channel within the Runway Safety Area; and

WHEREAS, Hayward Executive Airport in September 2017 requested bids for Airport consulting services; and

WHEREAS, the City of Hayward intends to award the contract to Kimley-Horn and Associates, Inc., for Airport consulting services related to the Sulphur Creek Mitigation Design project; and

WHEREAS, the FAA has proposed to fund the design costs associated with covering the open channel within the Runway Safety Area; and

WHEREAS, the Adopted FY 2019 Capital Improvement Program contains sufficient funding for the City’s matching portion of the FAA grant.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to negotiate and execute an agreement with Kimley-Horn and Associates, Inc. for Airport consulting services in an amount not-to-exceed \$444,000, in a form to be approved by the City Attorney.

NOW, THEREFORE, BE IT FURTHER RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to accept and execute a grant from the FAA for the Sulphur Creek project at the Airport in a form to be approved by the City Attorney.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____ + _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-506

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Assistant City Manager

SUBJECT

Renewal of Rental Housing Grant Subsidy Agreement with Abode Services

RECOMMENDATION

That Council adopts a resolution (Attachment II) authorizing the use of HOME Investment Partnership (HOME) funds for rental assistance to emancipated and former foster care youth through Abode Services' Project Independence and authorizing the City Manager to negotiate and execute a rental housing subsidy grant agreement.

SUMMARY

The recommended resolution authorizes the City Manager to negotiate and execute a rental housing subsidy agreement with Abode Services in an amount not to exceed \$275,908 of HOME funds. These funds will provide rental assistance to emancipated and former foster care youth. Project Independence, in addition to rental assistance, provides case management to support program participants with education, vocational, and social service resources. The program is consistent with priorities set in the Consolidated Plan of the Alameda County HOME Consortium and the Hayward Housing Element. Project Independence has been successful at providing positive outcomes for participants. The Project Independence Program has been supported by the City of Hayward since 2007.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Assistant City Manager

SUBJECT: Renewal of Rental Housing Grant Subsidy Agreement with Abode Services

RECOMMENDATION

That Council adopts a resolution (Attachment II) authorizing the use of HOME Investment Partnership (HOME) funds for rental assistance to emancipated and former foster care youth through Abode Services' Project Independence and authorizing the City Manager to negotiate and execute a rental housing subsidy grant agreement.

SUMMARY

The recommended resolution authorizes the City Manager to negotiate and execute a rental housing subsidy agreement with Abode Services in an amount not to exceed \$275,908 of HOME funds. These funds will provide rental assistance to emancipated and former foster care youth. Project Independence, in addition to rental assistance, provides case management to support program participants with education, vocational, and social service resources. The program is consistent with priorities set in the Consolidated Plan of the Alameda County HOME Consortium and the Hayward Housing Element. Project Independence has been successful at providing positive outcomes for participants. The Project Independence Program has been supported by the City of Hayward since 2007.

BACKGROUND

On July 24, 2007, the City Council first authorized the use of HOME funds to provide rental assistance to emancipated youth and former foster care youth through Abode Services' Project Independence Program. The program was implemented in 2008. The primary goal of the program is to provide case management and rental support to emancipated and former foster care youth who are homeless or at risk of homelessness. Council approved the renewal of the program in 2010, 2013, 2014, and 2016. Supported by other funding sources, the program has provided services to approximately 350 households since inception.

DISCUSSION

The Project Independence Program provides a needed service in Hayward. The program is consistent with priorities set in the Consolidated Plan of the Alameda County HOME Consortium and the Hayward Housing Element. Project Independence has been successful at providing positive outcomes for participants.

Demonstrated Need

Per Alameda County's 2017 Homeless Census & Survey, it has been estimated that one in five former foster youth experience homelessness within four years of exiting the foster care system. Of the total respondents in the 2017 homeless survey, 15% of the respondents indicated that they have been in the foster care system, and of the youth under the age of 25, 22% reported aging out of the foster care system. Youth who age out of the foster care system face unique challenges such as mental health problems, early or unplanned pregnancies, lack of stable affordable housing, fewer employment opportunities, and substandard medical care. As a result, youth who were formerly in foster care or group homes experience disproportionately higher rates of unemployment, lower educational attainment, incarceration, dependence on public assistance, substance abuse, and other high-risk behaviors.

Consistency with Housing Goals

The Project Independence Program is consistent with the strategies, priorities, and programs of FY 2014-2019 Consolidated Plan of the Alameda County HOME Consortium, to which the City is a party. The Consolidated Plan outlines needs, strategies, priorities, and programs for the expenditure of federal funds for housing and community development activities as required by the Department of Housing and Urban Development (HUD) for jurisdictions to be eligible to receive federal funding. Additionally, the program is included in the Housing Element as one of the programs aimed at addressing the housing needs of special populations.

Program Description

The objective of the program is to assist young adults who are coming out of the foster care or group home system, with securing housing, linkages to training and/or education, and social services that will enable them to act with self-determination and ultimately become independent. Program participants are either fully emancipated youth or 18 years or older and have aged out of the foster care systems, homeless or at risk of homelessness, and demonstrate the ability to enter into housing, including signing a lease agreement, abiding by the rules, agreeing to paying the \$75 deposit and first month's rent. Each participant will develop a Transition to Independent Living Plan. This plan is used to set goals for the participant and monitor progress in achieving the participant's stated goals. Each participant will work with the youth services coordinator to identify and make referrals to any needed resources. Participants will be required to pay the greater of \$75 or 30% of their adjusted income on rent. They are also required to abide by the terms of the lease and the program.

Current participants are being housed in nine units located throughout multiple apartment complexes. As required by federal funding, staff from Abode Services conduct a housing quality inspection of the apartments prior to move-in by participants to ensure that they live in a decent, safe, and sanitary environment. The City pays the difference between the fair market rents, as established by the Department of Housing and Urban Development, and the participants' rent payment not to exceed the actual rent for the unit.

The program also receives funds from the State of California's Transitional Housing Placement Program and from other cities in Alameda County. Funding from the City of Hayward subsidizes the rents for youth previously in foster care in Hayward and youth that are homeless or at risk of homelessness.

Program Performance

Since the implementation of the program in 2008, Hayward's contributions of HOME funding have helped house over 350 youth formerly in foster care and at-risk of homelessness. During the current agreement term, the Project Independence Program supported approximately 130 former foster youth. Table 1 highlights some of program's success for the 2017/18 program year.

TABLE 1. HIGHLIGHTS OF PROJECT INDEPENDENCE SUCCESS

Enrolled in formal education or vocational training	65%
Gained or maintained employment	71%
Maintained custody of children	89%
Earned high school diploma or GED	74%
Secured stable housing after aging out of program	75%

Independent living programs like Project Independence are an effective approach to mitigating and resolving many of the challenges with which youth that were formerly in the foster care system are invariably faced. The supportive housing strategy provides youth with a stable foundation and adult support while they finish their education or job training, find new employment and/or overcome psychological problems that interfere with their ability to live independently.

ECONOMIC IMPACT

Homelessness and housing crises are not only damaging to the physical, mental, and economic health of individuals and families, but have serious costs to the community as well. The costs to the community include the costs of providing emergency housing, mental health crisis services, emergency medical care, criminal justice, and judicial system involvement. A program such as Project Independence helps avoid these costs by preventing youth aging out of the foster care system from becoming homeless.

FISCAL IMPACT

Implementation and administration of this program would have no impact on the City's General Fund. There are sufficient HOME funds to support this contract.

Should Council approve the attached Resolution, the City will fund Project Independence in the amount of \$275,908 from uncommitted HOME funds for fiscal year 2017. 2018 HOME funds in the amount of \$415,280 will be available to commit to other HOME eligible activities such as acquisition, rehabilitation, or new construction of affordable rental housing.

Further appropriation of HOME funds is neither necessary nor recommended at this time. Staff is currently evaluating project applications submitted under the Notice of Funding Availability for the development of affordable rental housing and will likely return with recommendations to award the 2018 HOME funds in September.

STRATEGIC INITIATIVES

This agenda item relates to the Complete Communities Initiative. The purpose of the Complete Communities initiative is to create and support structures, services, and amenities to provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work and play for all. This agenda item relates to the following goal and objectives:

Goal 1. Provide a mix of housing stock for all Hayward residents and community members, including the expansions of affordable housing opportunities and resources.

Objective 2: Conserve and improve the existing housing stock.

Objective 3 Increase supply of affordable, safe and resilient housing in Hayward.

PUBLIC CONTACT

As part of the Housing Element update process, the City implemented the State's Housing Element's public participation requirements. As a goal of the Housing Element, the Project Independence Program was open to public feedback during community/stakeholder workshops, townhall forums, General Plan taskforce meeting, Planning Commission and Council Study Sessions, and through a community survey.

NEXT STEPS

If approved by Council, the City Manager will negotiate and execute a two-year Rental Housing Subsidy Grant Agreement with Abode Services to provide rental assistance to emancipated and former foster care youth.

Prepared by: Christina Morales, Housing Division Manager

Recommended by: María A. Hurtado, Assistant City Manager

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written in a cursive style.

Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE USE OF HOME FUNDS FOR RENTAL ASSISTANCE TO EMANCIPATED AND FORMER FOSTER CARE YOUTH SYSTEM THROUGH ABODE SERVICES' PROJECT INDEPENDENCE AND AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE A RENTAL HOUSING SUBSIDY GRANT AGREEMENT

WHEREAS, The City of Hayward participates in a consortium of cities in Alameda County that share federal HOME Investment Partnership Act funds, and which helps provide funding for affordable housing programs;

WHEREAS, Each year, through the consortium, the City receives an allocation of federal HOME Investment Partnership funds;

WHEREAS, Project Independence is a program implemented by ABODE Services that serves emancipated youth or youth ages 18 and older, in Alameda County who have aged out of the foster care system;

WHEREAS, Project Independence provides affordable housing and comprehensive support services, such as education, and vocational training, employment placement, financial literacy training, and mental and physical healthcare services;

WHEREAS, Staff proposes to utilize \$275,908 of HOME funds that were allocated to the City to help pay for rental subsidies for emancipated and former foster care youth through the Project Independence program;

WHEREAS, The rental subsidies will be used by ABODE Services to pay a portion of the Project Independence program participants' rent;

WHEREAS, Staff anticipates that said funds would subsidize rents for approximately ten (10) individuals per year provided they comply with the provisions of the Project Independence program.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward hereby authorizes utilizing \$275,908 of the City's HOME funds to help pay for rental subsidies for emancipated and former foster care youth in Alameda County through the Project Independence program.

BE IT FURTHER RESOLVED that the City Manager is hereby authorized and directed to take such actions as may be necessary to provide and implement the rental subsidies contemplated by this resolution and to negotiate, have prepared, and execute any and all documents necessary to complete the activities contemplated by this resolution, subject to approval by the City attorney.

IN COUNCIL, HAYWARD, CALIFORNIA July __, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-518

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT

Abatement and Deconstruction for Route 238 Bypass Property Project - Approval of Plans and Specifications and Call for Bids

RECOMMENDATION

That Council adopts the attached resolution that approves the plans and specifications for the Hazardous Material Testing Reports for the Route 238 Bypass Property Project, and calls for bids to be received on August 14, 2018.

SUMMARY

A number of buildings recently acquired by the City from the California Department of Transportation (Caltrans) as part of the Route 238 Bypass Property project require hazardous materials testing and clean-up prior to the demolition. EnviroNova, LLC., a hazardous materials and environmental consulting firm has provided hazardous material surveying, testing, and abatement plan reports for ten (10) properties acquired from Caltrans and one (1) additional City-owned downtown property in Phase 1 of the demolition project. Staff has prepared construction contract documents using these reports, and will issue a call for bids to select a qualified contractor to perform the clean-up and demolition of Phase 1 parcels.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Interim Director of Public Works

SUBJECT Abatement and Deconstruction for Route 238 Bypass Property Project – Approval of Plans and Specifications and Call for Bids

RECOMMENDATION

That Council adopts the attached resolution that approves the plans and specifications for the Hazardous Material Testing Reports for the Route 238 Bypass Property Project and calls for bids to be received on August 14, 2018.

SUMMARY

A number of buildings recently acquired by the City from the California Department of Transportation (Caltrans) as part of the Route 238 Bypass Property project require hazardous materials testing and clean-up prior to the demolition. EnviroNova, LLC., a hazardous materials and environmental consulting firm has provided hazardous material surveying, testing, and abatement plan reports for ten (10) properties acquired from Caltrans and one (1) additional City-owned downtown property in Phase 1 of the demolition project. Staff has prepared construction contract documents using these reports and will issue a call for bids to select a qualified contractor to perform the clean-up and demolition of Phase 1 parcels.

BACKGROUND

To demolish buildings on the above referenced properties, the City must comply with the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants. On June 19, 2018, Council awarded a Professional Services Agreement to EnviroNova, LLC. (EnviroNova), for the hazardous material testing reports for buildings that will need to be deconstructed. EnviroNova has completed the required services for Phase 1 of this demolition activity. Phase 1 includes all of those buildings that are currently vacant. Other phases of the project will begin as soon as other tenants vacate the properties.

DISCUSSION

Phase 1 consists of eleven (11) structures or parcels as shown in the table below.

PROP SL NO	STREET NAME / RESIDENT NAME	ADDRESS
1	Maitland Drive	25552 Maitland
2	Maitland Drive	25560 Maitland
3	Maitland Drive	25564 Maitland
4	Maitland Drive	25568 Maitland
5	Maitland Drive	25584 Maitland
6	Maitland Drive	25685 Maitland
7	Maitland Drive	25697 Maitland
8	Bunker Hill Court	25361 Bunker Hill Ct
9	Bunker Hill Blvd.	25669 Bunker Hill Blvd
10	NE Corner of Main St / C St	1026 C St
11	Central Blvd	1058 Central Blvd

Required evaluation, testing, abatement, and demolition plans have been completed for these parcels. Staff is working with utility companies to disconnect all utility services prior to demolition. This includes water, gas, electric, telephone, and cable services. The project will remove any hazardous materials, deconstruct and recycle materials from existing structures, and prepare these parcels for future development.

This project is exempt from environmental review based upon Sections 15301 [Existing Facilities], 15303 [New Construction or Conversion of Small Structures], 15304 [Minor Alterations to Land] and 15305 [Minor Alterations in Land Use Limitations] of the California Environmental Quality Act (CEQA) Guidelines.

ECONOMIC IMPACT

The future development of these City-owned former Route 238 parcels will have a positive long-term economic impact.

FISCAL IMPACT

The estimated demolition (Phase 1) project costs are as follows:

Construction Contract	\$550,000
Construction - Administrative Change Orders	\$55,000
Design and Administration	\$85,000
Construction Inspection and Testing	<u>\$110,000</u>
Total	\$800,000

The project will require appropriation of \$800,000 from Fund 100 – General Fund to Fund 411 – 238 Property Development.

The project costs for hazardous material abatement and demolition for remaining phases of the work are separate and will be determined after the tests and reports are completed, and construction documents are prepared for bid.

Project costs will be recovered from the future sale of these properties to developers who submit development proposals that are most beneficial to the City. Demolition will immediately relieve the City of most ongoing property maintenance costs.

STRATEGIC INITIATIVES

This agenda item is a part of the Route 238 Bypass Property Program and supports the Complete Communities Strategic Initiative. The purpose of the Complete Communities initiative is to create and support structures, services, and amenities to provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work, and play for all. This agenda item supports the following goals and objectives:

Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.

Objective 1: Increase neighborhood safety and cohesion.

Objective 2: Foster a sense of place and support neighborhood pride.

Objective 4: Create resilient and sustainable neighborhoods.

Goal 2: Provide a mix of housing stock for all Hayward residents and community members, including the expansion of affordable housing opportunities and resources.

Objective 1: Centralize and expand housing services.

Objective 2: Facilitate the development of diverse housing types that serve the needs of all populations.

Objective 4: Increase supply of affordable, safe and resilient housing in Hayward.

SUSTAINABILITY FEATURES

The action taken for this agenda report will not result in a new physical development, purchase or service, or a new policy or legislation. This agenda item will only result in the clean-up of properties and demolition service.

PUBLIC CONTACT

Staff has been in direct and frequent communication with residents and neighborhood groups within the Route 238 area. Area residents are awaiting the City's action to demolish and clean-up the vacant properties.

NEXT STEPS

Open Bids	August 14, 2018
Award Contract	September 18, 2018
Begin Work	October 2, 2018
Complete Work	November 2, 2018

Prepared by: Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Interim Director of Public Works

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-_____

Introduced by Council Member _____

RESOLUTION APPROVING PLANS AND SPECIFICATIONS FOR THE ABATEMENT AND DECONSTRUCTION FOR ROUTE 238 BYPASS PROPERTY PROJECT, PROJECT NO. 05276, AND CALL FOR BIDS

BE IT RESOLVED by the City Council of the City of Hayward as follows:

WHEREAS, Those certain plans and specifications for the Abatement and Deconstruction for Route 238 Bypass Property Project, Project No. 05276, on file in the office of the City Clerk, are hereby adopted as the plans and specifications for the project;

WHEREAS, The City Clerk is hereby directed to cause a notice calling for bids for the required work and material to be made in the form and manner provided by law;

WHEREAS, Sealed bids therefor will be received by the City Clerk's office at City Hall, 777 B Street, 4th Floor, Hayward, California 94541, up to the hour of 2:00 p.m. on Tuesday, August 14, 2018, and immediately thereafter publicly opened and declared by the City Clerk in the Public Works Conference Room, 4D, located on the 4th Floor of City Hall, Hayward, California;

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the City Council will consider a report on the bids at a regular meeting following the aforesaid opening and declaration of same.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the project is exempt from environmental review based upon Sections 15301 [Existing Facilities], 15303 [New Construction or Conversion of Small Structures], 15304 [Minor Alterations to Land] and 15305 [Minor Alterations in Land Use Limitations] of the California Environmental Quality Act (CEQA) Guidelines.

IN COUNCIL, HAYWARD, CALIFORNIA July __, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-537

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Information Technology

SUBJECT

Authorization for the City Manager Negotiate and Execute a Professional Services Agreement with Contra Costa Electric for the Completion of a City-Wide Fiber Asset Audit

RECOMMENDATION

That the Council adopts the attached resolution (Attachment II) authorizing the City Manager to negotiate and execute a professional services agreement with Contra Costa Electric for the completion of a city-wide fiber asset audit, in an amount not to exceed \$105,000.

SUMMARY

The City's Fiber-Optic Master Plan (Attachment III) was adopted on July 18, 2017. Its primary objective is to "analyze and outline the best potential path and business model to deploy a fiber optic network that can meet the community's needs, with an initial emphasis on service businesses located in Hayward's Industrial Corridor." Specifically, the Fiber-Optic Master Plan directs the City to complete an audit of City-owned fiber infrastructure and records.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	Fiber Master Plan
Attachment IV	Fiber Loop Map



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Information Technology

SUBJECT: Authorization for the City Manager Negotiate and Execute a Professional Services Agreement with Contra Costa Electric for the Completion of a City-Wide Fiber Asset Audit

RECOMMENDATION

That the Council adopts the attached resolution (Attachment II) authorizing the City Manager to negotiate and execute a professional services agreement with Contra Costa Electric for the completion of a city-wide fiber asset audit, in an amount not to exceed \$105,000.

SUMMARY

The City's Fiber-Optic Master Plan (Attachment III) was adopted on July 18, 2017. Its primary objective is to "analyze and outline the best potential path and business model to deploy a fiber optic network that can meet the community's needs, with an initial emphasis on service businesses located in Hayward's Industrial Corridor." Specifically, the Fiber-Optic Master Plan directs the City to complete an audit of City-owned fiber infrastructure and records.

BACKGROUND

In 2016, the U.S. Economic Development Administration awarded the City a \$2.74 million grant to support the installation of an 11-mile fiber optic loop (fiber loop) within the City's industrial corridor. To capitalize on this transformative project, the City contracted with CTC Technology and Energy to develop a holistic fiber master plan to provide a roadmap for the development and deployment of a municipally owned fiber-optic network.

The City's Fiber-Optic Master Plan (Attachment III) was adopted on July 18, 2017. Its primary objective is to "analyze and outline the best potential path and business model to deploy a fiber optic network that can meet the community's needs, with an initial emphasis on service businesses located in Hayward's Industrial Corridor." Specifically, the plan recommends the following actions: Pursue a dark fiber to the premises (FTTP) model for operating the municipally owned network

- Adopt a dig-once policy
- Audit fiber infrastructure and records
- Implement a comprehensive fiber asset record management system
- Construct a fiber segment to connect an internet point-of-presence (POP)
- Expand FTTP to select industrial corridor areas
- Procure a dark fiber manager
- Lease dark fiber to select industrial corridor customers

DISCUSSION

The fiber loop being constructed utilizes a portion of existing City owned fiber along Mission Blvd., W. Winton Ave., and Clawiter Rd. to complete the loop (see Attachment IV Fiber Loop Map). Currently, the City does not have centrally accessible or reliable information on the City's existing fiber assets. As the City moves forward with the construction of the Fiber Loop, it is imperative that the City centralize its documentation of existing fiber assets and audits those assets to ensure that there are no issues with their physical and operational state.

The adopted Fiber-Optic Master Plan directs the City to conduct a Fiber Asset Audit of existing fiber assets and records. In order for the City to provide access to its dark fiber network, knowledge of City owned assets, which include conduit and fiber location and fiber count, must be carefully documented and maintained. In addition to providing access to the dark fiber network, accurate and up-to-date documentation will help the Public Works Department mark fiber locations during road construction and other disruptive activities in the public right of way, reducing the likelihood of accidental fiber breaks, aiding future construction and the future allocation of fiber strands.

Furthermore, this work will assist in the production of an initial GIS fiber map which can be updated as future deployments of fiber take place in real time.

Technical Summary

Contra Costa Electric (CCE) will survey the fiber cables and fiber termination equipment that support the City of Hayward's fiber underground network. CCE will take an inventory of the existing underground pull boxes, splice point locations, and building fiber panel locations throughout the City's fiber network.

CCE will audit the condition of fiber and conduit. The audit will note if underground fiber cables move easily in their conduits or if tight. Tight cables may indicate that the underground conduits may be crushed or broken making the conduit unavailable for future use. If the fiber is damaged this will be noted when fiber is tested. CCE will confirm conduit type and location along with fiber strand counts and any spare or unused fiber strands. CCE will also test existing fiber cables that support the 19 building locations that are occupied by the City of Hayward.

Based on current documentation of the fiber network, CCE has identified approximately 406 underground pull box and splice locations and 440 fiber termination points that need testing. CCE was also able to identify approximately 32 traffic cabinet locations that house fiber termination points. There are approximately sixteen miles of underground fiber to inventory as well as the short runs of fiber that go out to the 19 City building locations from splice points.

CCE will work with the City to make sure the fiber asset audit includes a survey matrix that encompasses all items described above. CCE will submit proper paper work and a plan showing the areas of underground conduit inspection, a traffic control plan, and a certificate of insurance.

FISCAL IMPACT

The cost of the fiber asset audit is \$103,877.34. This includes materials, documentation, labels, labor, permits, testing expenses, truck rollouts, fiber testing tools and equipment.

The Fiscal Year 2019 Capital Improvement Program, Fund 731, Project 7275 includes \$125,000 in funding for this work.

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

NEXT STEPS

Following approval, staff will execute an agreement with CCE. Contra Costa Electric is prepared to begin the fiber asset audit immediately. This work should be completed by the end of Calendar Year 2018.

Prepared by: Carolyn Saputo, IT Manager, Infrastructure
John Stefanski, Management Analyst II

Recommended by: Adam Kostrzak, CIO/IT Director

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-_____

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH CONTRA COSTA ELECTRIC FOR THE COMPLETION OF A CITY-WIDE FIBER ASSET AUDIT, IN AN AMOUNT NOT TO EXCEED \$105,000

WHEREAS, The City Council adopted a Fiber-Optic Master Plan on July 18, 2017, which directs the City to complete an audit of existing city-owned fiber infrastructure and records; and,

WHEREAS, The City desires to enter into a professional services agreement with Contra Costa Electric to complete a city-wide fiber asset audit; and,

WHEREAS, Contra Costa Electric is specially trained, experienced, and competent to perform the special services which is required by the City; and,

WHEREAS, The Fiscal Year 2019 Capital Improvement Program appropriated \$125,000 for this project (Fund 731, Project 07275).

NOW, THEREFORE, BE IT RESOLVED, the City Council hereby authorizes the City Manager to negotiate and execute a professional services agreement with Contra Costa Electric for the completion of the city-wide fiber asset audit.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
 MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

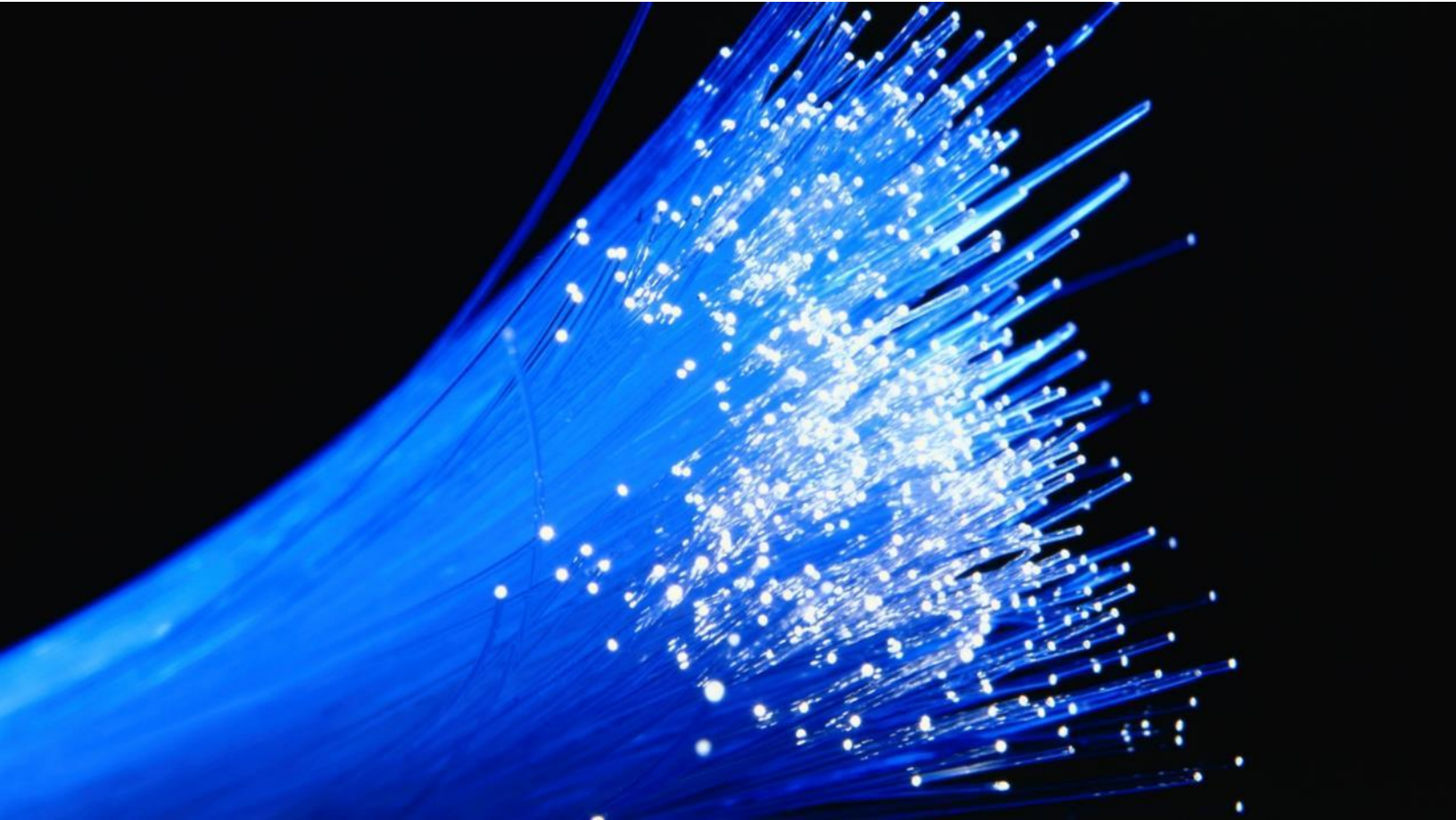
ATTEST: _____
 City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward

ctc technology & energy

engineering & business consulting



Fiber Optic Master Plan

Prepared for the City of Hayward, California

February 2017

Contents

1	Executive Summary.....	1
1.1	Project Background and Objectives	1
1.1.1	Fiber Optic Master Plan Objectives	2
1.2	Methodology	3
1.3	The City of Hayward’s Industrial Corridor Is Unique	3
1.4	The City’s U.S. Economic Development Administration Grant Decreases FTTP Construction Costs	4
1.5	The City Can Consider Three Potential Business Models with Varying Degrees of Risk	6
1.5.1	A Dark FTTP Model Will Enable the City to Partner with the Private Sector and Balance Risk	7
1.5.2	A Wholesale Service Model Can Enable Multiple ISPs to Serve Customers	8
1.5.3	A Retail Service Model Is High Risk.....	9
1.6	Estimated Fiber Costs and Phased Deployment	10
1.6.1	Industrial Technology and Innovation Corridor	10
1.7	Recommendations and Next Steps	11
1.7.1	Initiate a Procurement Process to Deploy Dark FTTP Network	12
1.7.2	The City Can Take Small Steps with Potentially Big Rewards Toward Achieving Its Goals	14
1.8	Expanding FTTP to Residential Customers Adds Considerable Cost	19
2	Broadband Needs and Trends	21
2.1	The City Is Served Similarly to Other Markets, but There Are Still Gaps in Service	22
3	Needs Assessment	24
3.1	Business Survey Results.....	24
3.2	Comparison of Services in Hayward to Gigabit Communities.....	24
4	Operational and Business Model Options	27
4.1.1	Staffing Considerations for Various Business Models.....	28
4.2	Fiber Management Requirements	29

4.3	Dig Once Considerations	30
4.3.1	The Case for Dig Once Policies	30
4.3.2	Coordinating Conduit Construction with Other Utility Projects Reduces Costs	32
4.3.3	Standard Specification	32
5	Proposed Fiber Design	35
5.1	Construction Methodology	35
5.2	Overview of Existing Assets	36
5.2.1	City Conduit and Fiber	36
5.3	Leverage Existing Assets	39
5.4	Conceptual Design and Specifications – Industrial Technology & Innovation Corridor	41
5.4.1	Network Design	44
5.4.2	Network Core and Hub Site	45
5.4.3	Distribution and Access Network Design	46
6	Cost Estimate – Industrial Technology & Innovation Corridor	50
6.1	FTTP Cost Estimate Summary	50
6.1.1	FTTP Cost Estimate (Fiber and Electronics) – Wholesale and Retail Models	50
6.1.2	FTTP Only Cost Estimate (No Electronics, Drops, or CPEs) – Dark FTTP Model	52
6.2	Cost Estimate Breakdown	53
6.2.1	Existing City Network Infrastructure Decreases FTTP Construction Costs.....	54
6.3	Field Survey Methodology for Network Design and Cost Estimate	55
6.4	FTTP Cost Estimate	56
6.4.1	OSP Cost Estimation Methodology	57
6.4.2	OSP.....	58
6.4.3	Central Network Electronics.....	59
6.4.4	Customer Premises Equipment (CPE) and Service Drop Installation (Per- subscriber Costs).....	60
6.5	Operating Cost Considerations.....	61
6.5.1	Technical Operational Expenditures	61

- 6.5.2 Technical Staffing Requirements 63
- 7 Business and Financial Model 65
 - 7.1 Overview 65
 - 7.2 Retail Model Financial Projections 66
 - 7.2.1 Financing Costs and Operating Expenses 67
 - 7.2.2 Operating and Maintenance Expenses..... 73
 - 7.2.3 Summary of Operating and Maintenance Assumptions 74
 - 7.2.4 Take-Rate Sensitivity 75
 - 7.3 Wholesale Model Financial Projections 77
 - 7.3.1 Financing Costs and Operating Expenses 79
 - 7.3.2 Operating and Maintenance Expenses..... 84
 - 7.3.3 Summary of Operating and Maintenance Expenses 85
 - 7.3.4 Take-Rate Sensitivity 86
 - 7.4 Dark FTTP Model Financial Analysis 88
 - 7.4.1 Cost Implications of the Dark FTTP Model 90
 - 7.4.2 Financing Costs and Operating Expenses 91
 - 7.4.3 Operating and Maintenance Expenses..... 97
 - 7.4.4 Revenue 99
 - 7.4.5 Dark FTTP Fee Sensitivity..... 100
- Appendix A: Glossary of Terms 102
- Appendix B: Assessment of Local Broadband Market 104
- Appendix C: Retail Financial Model (spreadsheet) 105
- Appendix D: Wholesale Financial Model (spreadsheet) 106
- Appendix E: Dark FTTP Financial Model (spreadsheet) 107
- Appendix F: Online Business Survey Questions..... 108
- Appendix G: Online Business Survey Results 109
 - Survey Methodology 109
 - Online Survey Results 110
 - The Majority of Responses Were from Small-to-Medium Size Businesses 110

Nearly Half of Respondents Are Satisfied with Current Internet Speeds..... 113

Pricing Sensitivity and Willingness to Switch Service Providers..... 116

The City’s Role..... 119

Follow-Up Interviews with Select Businesses..... 120

Figures

Figure 1: Demarcation Between City and Partner Network Elements..... 8

Figure 2: Comparison of Per-Passing Costs in Various U.S. Markets..... 20

Figure 3: Existing and Proposed City-Constructed Infrastructure 38

Figure 4: Existing and Proposed City-Constructed Fiber by Strand Count 39

Figure 5: High-Level FTTP Architecture..... 43

Figure 6: Detail Showing FTTP Access Layer Design 45

Figure 7: Total Estimated Cost versus Take Rate..... 51

Figure 8: Demarcation Between City and Partner Network Elements..... 53

Figure 9: Map Showing Existing Conduit and Fiber Resources..... 55

Figure 10: High-Level FTTP Sample Design Overview..... 57

Figure 11: Demarcation Between City and Partner Network Elements..... 90

Figure 12: Respondents’ Number of Employees (Based on 255 Responses) 111

Figure 13: Respondents’ Annual Sales Volume (Based on 227 Responses) 112

Figure 14: Business Respondents’ Primary Internet Connection (Based on 201 Responses) 113

Figure 15: Importance of Price, Reliability, and Speed (Based on 191 Responses) 114

Figure 16: Respondents’ Satisfaction With Current Internet Speeds (Based on 197 Responses)
..... 115

Figure 17: Satisfaction with Current Internet Service Attributes (Based on 192 Responses) 116

Figure 18: Monthly Cost for Internet Services (Based on 183 Responses) 117

Figure 19: Respondents’ Willingness to Switch to 100 Mbps Service at Various Price Points
(Based on 142 Responses) 118

Figure 20: Respondents’ Willingness to Switch to 1 Gbps Service at Various Price Points (Based
on 137 Responses) 119

Figure 21: Main Role for the City With Respect to Broadband Access (Based on 160 Responses)
..... 120

Tables

Table 1: Three Potential Business Models..... 7

Table 2: Breakdown of Estimated Dark FTTP Cost.....	11
Table 3: Staffing for Dark FTTP Business Model	28
Table 4: Staffing for Wholesale Service Model.....	29
Table 5: Staffing for Retail Service Model.....	29
Table 6: Breakdown of Estimated Total Cost.....	51
Table 7: Breakdown of Estimated Dark FTTP Model Cost	52
Table 8: Breakdown of Estimated Total Capital Cost – Retail and Wholesale Model	56
Table 9: Estimated OSP Costs for FTTP	58
Table 10: Estimated Central Network Electronics Costs.....	59
Table 11: Per-subscriber Cost Estimates	61
Table 12: Responsibility Matrix for Potential Business Models	65
Table 13: Base Case Retail Model Financial Analysis with 60 Percent Take Rate	67
Table 14: Operating Expenses in Years 1, 5, 10, 15, and 20 – Retail Model.....	69
Table 15: Income Statement – Retail Model	70
Table 16: Cash Flow Statement – Retail Model.....	71
Table 17: Capital Additions – Retail Model.....	73
Table 18: Labor Expenses – Retail Model	74
Table 19: Take Rate Reduced to 50 Percent – Retail Model	76
Table 20: Take Rate Reduced to 40 Percent – Retail Model	77
Table 21: Take Rate Reduced to 30 Percent – Retail Model	77
Table 22: Wholesale Model Financial Analysis with 60 Percent Take Rate (Base Case)	78
Table 23: Operating Expenses in Years 1, 5, 10, 15, and 20 – Wholesale Model.....	80
Table 24: Income Statement – Wholesale Model	81
Table 25: Cash Flow Statement – Wholesale Model	82
Table 26: Capital Additions – Wholesale Model.....	84
Table 27: Labor Expenses – Wholesale Model	85
Table 28: Take Rate Reduced to 50 Percent – Wholesale Model.....	87
Table 29: Take Rate Reduced to 40 Percent – Wholesale Model.....	87
Table 30: Take Rate Reduced to 30 Percent – Wholesale Model.....	88
Table 31: Base Case Financial Analysis – Dark FTTP Model.....	89
Table 32: Breakdown of Estimated Dark FTTP Model Cost (aerial and underground construction)	90
Table 33: Income Statement – Dark FTTP Model	93
Table 34: Cash Flow Statement – Dark FTTP Model.....	95
Table 35 – Capital Additions – Dark FTTP Model.....	97
Table 36: Operating Expenses Dark FTTP Model.....	99
Table 37: Dark FTTP Model Financial Analysis - \$35 Per Month Passing Fee.....	100

Table 38: Dark FTTP Model Financial Analysis - \$30 Per Month Passing Fee..... 101
Table 39: Dark FTTP Model Financial Analysis - \$25 Per Month Passing Fee..... 101

1 Executive Summary

There is a growing desire for robust, fiber-based broadband throughout the U.S., particularly among businesses of all sizes as their needs evolve, and connectivity becomes increasingly integral to business operations. Given this, localities are eager to find ways to fill gaps in available service to help their communities attract and retain businesses. Cities that want to advance economic development and attract a talented workforce are seeking ways to deploy fiber-to-the-premises (FTTP) in their communities, or to partner with private providers that are willing and able to help meet connectivity needs.

The City of Hayward is committed to enabling greater fiber-based connectivity for its numerous businesses, and to eventually expanding services to its residential neighborhoods. The City is focused on a phased municipal broadband deployment, and exploring a potential public-private partnership to achieve these goals.

1.1 Project Background and Objectives

The City intends to leverage any available conduit and fiber infrastructure to support a municipal FTTP deployment to advance the availability, affordability, and reliability of connectivity services for its business sector, which hosts thousands of businesses in a broad range of industries. To this end, the City has received funding from the U.S. Department of Commerce to install a preliminary fiber optic and conduit network. CTC's engineers developed a proposed fiber design (see Section 5) based on the assumption that this infrastructure would be foundational to any future City efforts to deploy an FTTP network.

To supplement the City's direct efforts to deploy FTTP and to potentially support its long-term vision, the City also seeks to understand emerging public-private partnerships in the broadband industry, how to balance risk and reward, and whether a partnership makes sense in Hayward. In short, the City aims to take any steps it can to enable greater connectivity in the community, while not taking on undue risk.

The Fiber Optic Master Plan's primary objective is to analyze and outline the best potential path and business model to deploy a fiber optic network that can meet the community's needs, with an initial emphasis on serving businesses located in Hayward's Industrial Corridor.

1.1.1 Fiber Optic Master Plan Objectives

To achieve the City's vision as outlined in its General Plan 2020,¹ the Industrial Technology and Innovation Corridor (Industrial Corridor)—an approximately nine-square-mile section of industrial-zoned land with more than 5,100 businesses—needs infrastructure to attract investment and support business growth. Today, fiber infrastructure that supports access to broadband Internet service is as vital as streets, water, and sewer infrastructure. Broadband connectivity enhances a community's economic development potential by attracting new advanced businesses and providing existing businesses the tools they need to expand. Accordingly, the City engaged CTC Technology & Energy (CTC) to prepare a Fiber Optic Master Plan to assist in the planning, budgeting, and implementation of a landmark fiber optic network infrastructure project.

The Fiber Optic Master Plan's primary objective is to analyze and outline the best potential path and business model to deploy a fiber optic network that can meet the community's needs, with an initial emphasis on serving businesses located in Hayward's Industrial Corridor. Additional information on this targeted area and the types of business activities within it can be found in the Industrial Technology and Innovation Corridor Baseline Profile,² published by the City's Economic Development Division in March 2015.

Specifically, this plan outlines strategies for improved consumer choice for data connection services (including Internet), and economic development and job creation within the community. This plan:

- Provides the City with information and data to set its goals and objectives to facilitate the design and deployment of a fiber optic network in Hayward;
- Presents and evaluates the current supply of broadband communications assets, products, and services in the City;
- Provides an inventory and assessment of existing City-owned assets and infrastructure required to support deployment of a fiber optic network;
- Defines and evaluates potential fiber optic network routes and requirements;
- Identifies potential impacts of a fiber optic network, including impacts on City right-of-way (ROW), City-owned conduit, streetlight poles, traffic lights, existing fiber systems, and other real property;
- Defines services and technologies to be offered on the fiber optic network;
- Presents an engineering study, network design, and deployment cost model;

¹ The General Plan 2040 is available on the City's website at <http://cityofhayward-ca.gov/GENERALPLAN/>

² The Industrial Technology and Innovation Corridor Baseline Profile is available on the City's website at <http://cityofhayward-ca.gov/CITY-GOVERNMENT/BOARDS-COMMISSIONS-COMMITTEES/PLANNING-COMMISSION/pc/2015/pca040915-P01.pdf>

- Outlines a potential phased approach to deliver the network; and
- Evaluates potential business models to build, operate, and make “last-mile” connections to a fiber optic network.

1.2 Methodology

This report was researched and prepared in the summer and autumn of 2016 by CTC, with ongoing input from City staff. In addition to drawing on our extensive industry experience, our analysis is guided by our conversations and interviews with City staff about the City’s objectives and desired outcomes.

Over the course of the engagement, CTC performed the following general tasks:

1. Reviewed the City’s key physical infrastructure;
2. Developed and administered an online survey of Hayward businesses;
3. Conducted follow-up interviews with a select group of Hayward businesses to further gauge interest in City FTTP efforts;
4. Researched the region’s available broadband services and costs;
5. Conducted onsite and desk surveys of City infrastructure;
6. Evaluated potential public–private partnership business models based on current developments in the broadband industry; and
7. Developed pro forma financial statements for the City, including a governance model for a fiber enterprise.

In addition to those tasks, CTC prepared a proposed fiber design (Section 5), which provides data relevant to assessing the financial viability of network deployment, and offers guidance to develop business models for a potential City construction effort (including the full range of models for public–private partnerships). This estimate also provides key inputs to financial modeling (see Section 7) to determine the approximate revenue levels necessary for the City to service any debt incurred in building the network.

1.3 The City of Hayward’s Industrial Corridor Is Unique

Hayward is an economically and ethnically diverse city of approximately 150,000 residents within 45.32 square miles on the eastern edge of the San Francisco Bay. As a regional center of retail, industrial, and public activities, Hayward combines a hometown atmosphere, ideal climate, cultural attractions, parks, and recreational facilities with easy access to suppliers and customers throughout the Bay Area and beyond.

The City is known as the “Heart of the Bay” because of its central location in Alameda County—25 miles southeast of San Francisco, 14 miles south of Oakland, 26 miles north of San Jose, and 10 miles west of Pleasanton and surrounding valley communities. Hayward has two Bay Area Rapid Transit (BART) stations, an Amtrak station, its own executive airport, and an extensive network of freeways and bus lines that provide easy access to the San Francisco, Oakland, and San Jose international airports. The City also boasts easy access to the Port of Oakland, the fourth-busiest container port in the U.S.

The City leveraged its strategic location and natural assets to become a regional hub for commerce and trade. Today, Hayward is home to more than 7,000 businesses, ranging from family-owned retail shops and restaurants, to globally recognized manufacturers, distributors, and retailers. The City’s key industries include:

- Advanced and specialized manufacturing;
- Clean and green technology;
- Food and beverage manufacturing;
- Life science and biotechnology; and
- Transportation and logistics.

The City’s Industrial Corridor is a large crescent-shaped area of industrial-zoned land located along the City’s western and southwestern boundaries. This roughly nine square miles of land is home to more than 5,100 businesses that employ nearly 47,500 workers. Per the City’s General Plan, this corridor is expected to grow as an economic and employment center and evolve to achieve a healthy balance of traditional manufacturing and information- and technology-based uses.

Given the importance of the Industrial Corridor, we recommend focusing on providing service to businesses there as part of a phased implementation approach to deploying FTTP in Hayward. Rather than a pilot project, we believe that finding a way to serve the Industrial Corridor—or a subset of businesses there—and maintain service long term will serve the City’s interests. This may be possible through a public–private partnership under one of the business plans outlined in Section 1.5. Specifically, the City can target infrastructure deployment to lower barriers for one or more private providers that aim to serve these locations, and it can enable a mid-range FTTP-based retail product.

1.4 The City’s U.S. Economic Development Administration Grant Decreases FTTP Construction Costs

The U.S. Department of Commerce’s Economic Development Administration (EDA) announced in 2016 that it had awarded just over \$2.74 million in grant funds to the City to support fiber

optic infrastructure development.³ This grant funding will enable the City to install conduit and fiber optic cables, which will support an FTTP deployment in the Industrial Corridor.

The cost estimates in Section 6 anticipate an additional approximately \$5.4 million to deploy the proposed fiber design in Section 5.⁴ The design and associated costs take the EDA grant into consideration and anticipate that any infrastructure the City develops with the \$2.74 million grant will become part of a broader FTTP deployment. The fiber optic infrastructure that the City deploys with grant funds will serve as a backbone for a middle-mile and FTTP deployment.

Our analysis assumes that the grant funds will be used to install both conduit and fiber, and that the conduit will be fully deployed with City fiber infrastructure. Given this, it is unlikely that the City will have excess conduit to make available for other entities to use. In our experience, unless an entity already has excessive unused conduit or has a need to install innerduct,⁵ leasing conduit can hamper expansion of fiber as the entity's needs evolve. Further, there is not

The City's approximately \$2.74 million in Economic Development Administration (EDA) grant funds serve as the basis for CTC's engineering design and cost estimates, and enable cost savings for the City's FTTP deployment. The projected cost to deploy the proposed fiber design in Section 5 is approximately \$5.4 million, in addition to the \$2.74 million grant.

significant revenue to be realized from leasing empty conduit. Instead, if the City seeks to monetize its infrastructure, it can offer excess fiber strands for dark fiber licensing.

One key network infrastructure component is known as a "hub site," which is a location in the community, typically in the City's ROW, where network backbone fiber terminates in a shelter or enclosure. From this point, middle-mile network fiber is distributed deeper into the community to support eventual FTTP connections to customers.⁶ Another important part of network deployment is to connect the network to an Internet point of presence (POP) where the City can access services offered at the POP. Services could include hosting servers and network electronics in a datacenter environment and "peering," which involves direct access to application

³ "U.S. Department of Commerce Invests Nearly \$4 Million in Northern California to Help Build Infrastructure and Support Job Creation," *U.S. Economic Development Administration*, last modified September 9, 2016, <https://www.eda.gov/news/press-releases/2016/09/14/northern-ca.htm>.

⁴ Note that this cost is associated with a "dark FTTP model," in which the City would directly deploy an FTTP network and provide a private partner with a license to use the City-owned fiber. This estimate is for outside plant (OSP) infrastructure only and does not include the cost for network electronics, fiber drop cables, or customer premises equipment. See Section 1.5.1.

⁵ Innerduct is smaller conduit (or tube) used to subdivide a larger conduit or duct for the placement of optical fiber cables.

⁶ This is also commonly referred to as "distribution fiber," given its purpose.

providers⁷ that reside at the POP. In addition to serving as a backbone, the City’s grant-funded infrastructure will help connect the network hub to the POP, which can help the City gain access to Internet service providers (ISPs) that may be interested in procuring dark fiber from the City to serve businesses in the Industrial Corridor or along the fiber routes.

Perhaps the simplest benefit the EDA grant offers is approximately \$2.74 million in avoided costs to the City. While this does not cover the entire cost to serve the City’s target area, it gives the City a notable head start toward achieving its connectivity goals.

1.5 The City Can Consider Three Potential Business Models with Varying Degrees of Risk

We evaluated three core business models for the City to consider, two of which assume the City will seek a private partner. Each model assumes the City will invest in FTTP and take some financial and operating risk, even if the City pursues a public-private partnership based on one of these models. While a private company could come into the City and invest directly without requiring the City to take financial risk of its own, this private investment approach is not a true partnership, and the private sector has not signaled to the City a willingness to take this approach.

*We recommend considering a **dark fiber-to-the-premises (FTTP) model** in which the City deploys, owns, and operates an FTTP network and seeks a private partner to invest in electronics to “light” the network, and offers services to end users.*

In a **dark FTTP model**, the City directly deploys an FTTP network, and provides a private partner with a license to use the City-owned fiber; the partner “lights” the fiber, and offers services to end users. In this model, the partner would pay a per-passing cost to the City to help offset the public-sector costs for fiber deployment. In this model, the City is responsible for all construction and maintenance of the fiber, but does not manage network electronics, customer premises equipment (CPEs), or any customer contracts.

In a **wholesale service model**, the City deploys an FTTP network and “lights” the fiber, and then offers lit services to one or more private providers to offer service to end users. The City is responsible for fiber construction and maintenance as well as all network electronics, including replenishments and vendor contracts.

In a **retail service model**, the City deploys an FTTP network, “lights” the network, and directly offers services to end users. In this model, the City will construct and maintain an FTTP

⁷ Examples include Netflix, Vonage, Yahoo, Dropbox, etc.

network, “light” the fiber and maintain all network electronics, and market and sell services to retail customers. The City is responsible for customer service at every level in this model, and enters the local market as a direct competitor to existing providers.

Table 12 describes the City’s and a partner’s responsibilities in each of the models. It is important to note that certain aspects of a partnership may be negotiable, but that we recommend a division of responsibilities as outlined below. A partnership should help manage the City’s risk, and substantially modifying this division of responsibilities could place undue risk on the City. For example, we would view with skepticism a dark FTTP partnership that required the City to invest in both the fiber network and network electronics because it shifts much of the risk onto the City.

The three models we evaluated can be categorized from lowest to highest risk to the City: a dark FTTP model entails the least risk, a wholesale service model is riskier than the dark FTTP model, and a retail service model involves a great deal of risk to the City.

Table 1 shows a visual representation of the responsibilities that would fall to the City under each of the potential business models, and thus the potential degree of risk.

Table 1: Three Potential Business Models

City Responsibility	Model		
	Dark FTTP	Wholesale Service	Retail Service
Invest in and own outside plant (OSP)	X	X	X
Fund and perform fiber maintenance	X	X	X
Invest in own network electronics		X	X
Replenish network electronics		X	X
Manage electronics vendor contracts		X	X
Purchase and maintain CPEs			X
Marketing and customer acquisition			X
Conduct customer service			X

1.5.1 A Dark FTTP Model Will Enable the City to Partner with the Private Sector and Balance Risk

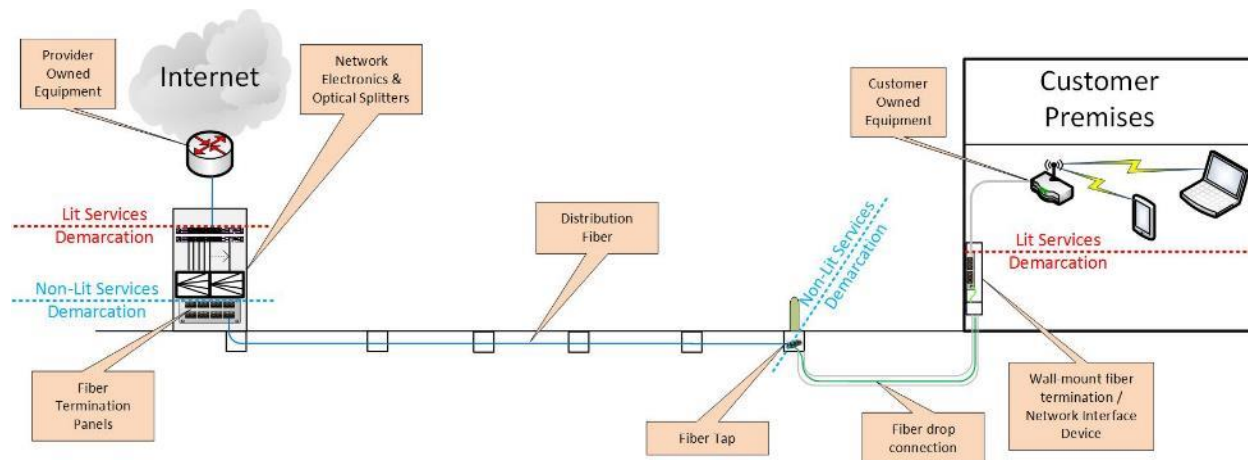
We believe the dark FTTP model represents the best balance of shared risk and reward between the City and a potential partner. In this model, the City is responsible for a substantial capital investment to deploy fiber to the Industrial Corridor (and, perhaps, eventually the entire community), but its risk is offset in part by retaining ownership of an asset. Further, this model assumes the private partner will make a substantial investment of its own in network electronics, and the marketing, advertising, and support responsibilities associated with providing service to end users.

The City is already versed in making infrastructure investments on various public works projects, and will not have to employ a broad range of new staff to learn unfamiliar skill sets such as providing technical support over the phone to customers who call for help with issues related to the equipment in their businesses or homes. Some of the responsibilities for maintaining the dark FTTP network will require additional staff, but we anticipate less than four full-time positions will be necessary to support the City’s dark FTTP deployment (see Section 7).

Further, as we noted, the City’s approximately \$2.74 in grant funding to support conduit and fiber installation is a meaningful step toward infrastructure investment, which will help lower the City’s risk even further. Unlike other communities that may not have access to grant funding, the City already has a head start on making an investment in fiber and conduit. If the City can supplement this investment to strategically deploy a dark FTTP network to its preferred target area in the Industrial Corridor, it may become an attractive partner for the private sector.

An example of the demarcation points between the City dark FTTP and the partners’ electronics is shown in Figure 1. The Figure also shows the potential demarcation points for lit services (wholesale model).

Figure 1: Demarcation Between City and Partner Network Elements⁸



1.5.2 A Wholesale Service Model Can Enable Multiple ISPs to Serve Customers

A wholesale service model is a lower-risk option than the City choosing to directly provide retail service, but it still represents a significant financial and operational risk for the City. Because the financial and operational risk for the fiber *and* the network electronics falls to the City, any private partner(s) with which the City contracts will automatically shoulder less of the

⁸ The analysis in this report assumes that the private partner will install fiber drop cables, and will cover the cost of these installations. A potential variation on this arrangement is for the City to pay for the drop cables. The demarcation is one variable that will be negotiated during a procurement process.

partnership's risk. That is, there will be an imbalance in the shared risk and reward between the parties, which puts the City at a disadvantage from the outset.

This model may still be attractive, however, if the City wishes to retain control of the fiber and the network electronics while shifting responsibilities such as operations, customer support, and marketing to the private sector. If the City is willing and able to take on additional financial and operational risk associated with network electronics—for example, maintaining vendor licenses, upgrading firmware, and periodically replacing network electronics—a wholesale service approach may be a viable option. This model can enable multiple ISPs to use the City's network to offer services by lowering costly barriers to entry.

1.5.3 A Retail Service Model Is High Risk

The only model that does not anticipate some level of partnership is the retail service model, where the City would construct, own, and operate a fiber network over which it would directly provide services to end users. While this model gives the City complete control, it also represents the greatest possible risk to the City. In this model, the City would be responsible for all aspects of network construction and administration, as well as marketing and advertising services to potential customers, providing services, and offering customer support. This is a

*Our analysis indicates that it would cost approximately **\$5.4 million** for the City to deploy a dark fiber network to the Industrial Corridor. This cost is in addition to the \$2.74 million the U.S. Economic Development Administration awarded the City in 2016.*

high-risk model, because all financial and operational responsibility for every aspect of the network and service falls to the City; the City must compete with existing providers that have an established presence in the market and can make use of economies of scale; and the City would be entering the market as a new provider.

There are numerous steps the City must take to implement a retail service model that provides service to end users. Even then, there is no guarantee that the City can successfully manage an inherently unpredictable for-choice business that requires an ability to compete in the marketplace against established providers. If the City opts to pursue this model, it will likely need to create new positions for additional staff; determine whether the fiber optic enterprise will be housed in an existing City department or will be a separate entity; develop a range of policies related to use, including compliance with digital millennium copyright act (DMCA) requirements and other state and federal regulations; and launch a marketing campaign. These are merely the steps necessary to get started. While these considerations are substantial, the complexities associated with ongoing operations are especially significant.

1.6 Estimated Fiber Costs and Phased Deployment

To ensure our design cost estimates reflected City goals and the reality of the infrastructure and market in Hayward, our engineers conducted extensive desk surveys and an onsite field survey, and engaged City staff in discussions throughout the course of this project. Our analysis examined potential costs associated with bringing FTTP to the Industrial Corridor, and a possible phased deployment.

1.6.1 Industrial Technology and Innovation Corridor

Based on a conceptual, high-level design prepared by our engineers, we developed cost examples for the City to consider. While we believe that a dark FTTP model will best meet the City's needs, we conducted analysis for a retail service model as well (see Section 6). This helps illustrate the difference in costs that the City might incur if it opts to pursue a retail service model—if, for example, the City is unable to find a partner to lease dark fiber and still wishes to ensure service to select portions of the community.

Here, we look at the cost to deploy *only* the FTTP outside plant (OSP)⁹ infrastructure. This is the total capital cost for the City to build a dark FTTP network for lease to a private partner, which will then provide retail service over the FTTP infrastructure. In other words, this portion of our analysis is consistent with the dark FTTP business model we outlined in Section 1.5.1.

We estimate that a dark FTTP model, in which the City deploys a dark FTTP network to the Industrial Corridor, will cost approximately \$5.4 million. As we noted, such a model does not include costs for network electronics, subscriber equipment, or fiber drop cables.

In this model, the partner would take on the costs for the network electronics, which represents approximately a \$3 million upfront investment, based on our analysis. Further, the partner would also be responsible for network electronic replenishments and annual fees associated with network electronics, such as vendor licenses.

Table 2, below, outlines the projected costs for this model, and Section 6 provides additional details about this approach.

⁹ OSP, known as “layer 1” or the “physical layer” of the network, is both the most expensive part of the network and the longest lasting.

Table 2: Breakdown of Estimated Dark FTTP Cost

Cost Component	Total Estimated Cost
OSP Engineering	\$0.5 million
Quality Control/Quality Assurance	0.2 million
General OSP Construction Cost	3.2 million
Special Crossings	0.7 million
Backbone and Distribution Plant Splicing	0.1 million
Backbone Hub, Termination, and Testing	0.5 million
FTTP Lateral Installations	0.2 million
Total Estimated Cost:	\$5.4 million

1.7 Recommendations and Next Steps

Section 2.1 indicates that the City is served similarly to comparable markets. While there are some gaps in available service, many of the City’s businesses currently have access to fiber-based connectivity or alternative technologies that offer sufficient speeds for their business

We recommend that the City:

- *Consider a dark FTTP model*
- *Adopt a dig-once policy*
- *Audit its infrastructure and records*
- *Implement a records management system*
- *Construct a fiber segment to connect an Internet POP*
- *Expand FTTP to select Industrial Corridor areas*
- *Signal to the private sector through a procurement process*
- *Lease dark fiber strands to select Industrial Corridor customers*

needs. We note that, based on our experience and analysis, Hayward is ahead of similar cities— even by simply commissioning this Master Plan, the City has set itself apart from many of its peers. Although there is not great urgency for the City to fill gaps, this section describes potential steps the City can take increase broadband availability—especially to businesses—and thereby potentially advance its standing in a global economy.

One of the most important decisions the City must make, which will inform next steps, is which business model to pursue. **We believe the City will achieve the most favorable outcome by pursuing a dark FTTP model, in which it expands its existing dark fiber and conduit, and grants access to its network to private entities**

that will offer services. We believe this approach represents shared investment and risk for the public and private sector, and may help offset the City’s financial obligations.

In this approach, the City constructs and owns the fiber network and the private partner “lights” the fiber with electronics and directly serves end users. This model is currently

underway on a large scale in the City of Westminster, Maryland, with its private partner Ting Internet,¹⁰ and in the City of Huntsville, Alabama, with its private partner, Google Fiber.¹¹

Retaining ownership of the fiber OSP assets is important to mitigate risk; owning assets is a way for the City to retain some control of the network, and to have some say in when, where, and how it is built. This approach includes a scenario in which a community pursues a partnership with a private provider; a good way to balance risk and reward is for the City to maintain ownership and control of the assets while it assigns operational responsibilities, including the capital investment for network and consumer electronics, to a private partner. This enables both parties to perform functions that highlight their strengths while not having to expend resources and energy attempting to carry out tasks for which they are ill-equipped.

There is risk to the City in this model because it requires a substantial capital investment to build (or expand) and maintain the fiber network, but it also gives the City a degree of control because the City owns the network. In the event the partnership fails for any reason the City owns its assets and can take over control of the network directly or engage a different partner. This partnership model where the City retains ownership of the fiber assets will likely enable the City to make use of its existing fiber assets, and retain more control than simply relying on the private sector, while tempering risk in a way that a retail model cannot.

We note that recent developments with Google Fiber—particularly its apparent scaling back of infrastructure deployment—do not change any of CTC’s recommendations in this report.¹² The City is focused on finding ways to serve business customers, while Google Fiber has historically focused on providing residential service.

1.7.1 Initiate a Procurement Process to Deploy Dark FTTP Network

To initiate the proposed lease of the dark FTTP network, we recommend considering two steps. First, issue a request for information (RFI) or request for proposal (RFP). Second, initiate the process to conduct the detailed design and the installation of the dark FTTP network.

1.7.1.1 Initiate a Procurement Process to Communicate the City’s Plans to the Private Sector

If the City pursues a dark FTTP or a wholesale service model, it may be prudent to issue a request for information (RFI) or request for proposal (RFP) to signal to the private sector that

¹⁰ Wiley Hayes, “Westminster, Md. Partners with Private Sector to Broaden Fiber-Optic Network,” *GovTech*, last modified October 26, 2015, <http://www.govtech.com/dc/articles/Westminster-Md-Partners-with-Private-Sector-to-Broaden-Fiber-Optic-Network.html>.

¹¹ Frederic Lardinois, “Google Fiber Is Coming To Huntsville, Alabama,” *Tech Crunch*, last modified February 22, 2016, <http://techcrunch.com/2016/02/22/google-fiber-is-coming-to-huntsville-alabama/>.

¹² Jon Brodtkin, “Google fiber division cuts staff by 9%, “pauses” fiber plans in 11 cities,” *ArsTechnica*, last modified October 25, 2016, <http://arstechnica.com/information-technology/2016/10/google-fiber-laying-off-9-of-staff-will-pause-plans-for-10-cities/>.

the City is willing to invest in infrastructure and is seeking a partner. The process can also provide feedback on price point a potential partner might consider (see Section 7.4).

An RFI process allows the City to cast a wide net and ask the private sector for input on potential business models and partnership configurations. An RFP is not as broad as an RFI, but allows the City to set the parameters of the business model it hopes to pursue in a partnership, and define specific requirements it will have of its partner(s). If the City can identify its preferred business model and can develop a framework of what it hopes to accomplish through a partnership, the terms defined in an RFP and a potential partner's response can serve as the foundation for an eventual partnership contract.

If the City opts to pursue a dark FTTP model, the procurement process can describe the type of investment the City is seeking from a private provider, the exact service area the City's dark FTTP deployment will target, and thoroughly describe the City's vision. This can lay out very clearly the City's expectations of a partner, and enable potential partners to evaluate the feasibility of partnering with the City.

For a wholesale service model approach, the City may want to start with a brief questionnaire aimed at known ISPs in the region before it moves forward with a full procurement process. This may identify providers that would be willing to purchase wholesale service from the City, and give the City a sense of what type of potential revenue it may be able to expect from a partnership.

1.7.1.2 Initiate a Procurement Process for the Detailed Design and Construction of the Dark FTTP

Below is the high-level outline of the tasks the City needs to undertake to move from the approval stage to completion of the fiber network.

- Draft, release, and administer an RFP for detailed engineering design based on the design presented in the feasibility study
- Perform oversight of the detailed engineering vendor to obtain engineering deliverables required for construction
- Draft, release, and administer an RFP for fiber construction
- Perform oversight of the fiber construction vendor as it builds the network
- Collect acceptance testing and as-built documentation from fiber construction vendor
- Perform quality assurance (QA)/quality control (QC) of the fiber construction vendor's work

Just to provide some additional context of what the detailed engineering vendor and fiber construction vendor typically provide, we have provided a high-level outline of their tasks below.

The detailed engineering vendor's responsibilities include:

- Field verification of the proposed fiber routes;
- Develop computer-aided design (CAD) drawings for detailed fiber routes;
- Identification and preparation of all permits required for the construction (ROW, environmental, bridge crossing, railroad crossing, etc.); and
- Final engineering deliverables including CAD drawings, Bills of Material, permit packages, splicing details.

The fiber construction vendor's responsibilities include:

- Construction of the fiber infrastructure;
- Delivery and storage of construction materials;
- Provide the City with as-built documentation and acceptance testing of their work; and
- Correct any deficiencies in the fiber infrastructure identified in the QA/QC process.

1.7.2 The City Can Take Small Steps with Potentially Big Rewards Toward Achieving Its Goals

There are opportunities for the City to improve telecommunications services in the community with minimal capital investment. A phased fiber construction approach would allow the City to invest in infrastructure over time that facilitates the goal of eventually providing FTTP to all residents and businesses in the City.

At a high level, we believe the City can take on the following projects to help advance toward its goals without requiring a multi-million-dollar investment in the near term:

- We recommend that, in the coming months, the City consider modifying its ROW ordinance to provide the City with the option of obtaining conduit on routes where utilities are performing excavation. This type of "Dig Once" policy would require any excavation plans fitting specified criteria to include municipal use conduit or fiber, unless the City opts out of the excavation project.
- Conduct an in-depth audit of existing fiber infrastructure and corresponding records, and implement a thorough records management program. This will support the City's current efforts, and will enable a stronger enterprise going forward.
- Spend approximately \$60,000 to construct a roughly 0.3-mile segment of fiber to the Internet POP¹³ at 25070 O'Neil Avenue. If the City expands fiber and conduit through the Industrial Corridor as planned, and begins offering dark fiber services to high-end customers, this will add value to that offering.

¹³ An alternative is to extend fiber to connect to the POP at the BART station. The estimated fiber cost to complete this extension is also approximately \$60,000. The City could choose to connect to either location, or to both POPs. To facilitate initial dark fiber leases, just one POP is required.

- Begin expanding FTTP to select portions of the Industrial Corridor, and signal to the private sector through a procurement process that the City seeks one or more partners to offer services over a City-owned fiber network.
- Offer dark fiber services to some locations to support key customers in the Industrial Corridor.

1.7.2.1 Consider Modifying the City's ROW Ordinance to Include a Dig-Once Policy

Future public works projects should also be leveraged to expand the City's conduit and fiber network. Projects such as utility replacements, road widenings, and other major capital improvement efforts may provide the opportunity to install conduit and fiber optics without the need for surface restoration. A coordinated Dig Once ordinance, which typically requires the installation of City-owned communications infrastructure in excavation projects where the City has determined that it is both financially feasible and consistent with the City's long-term goals, is recommended to leverage these types of public and private excavation projects. Section 4.3 further discusses our Dig Once recommendations.

Like Dig Once is a concept called "One-Touch Make-Ready," which applies to infrastructure that will be placed on electric or communication poles. Enacting a One-Touch Make-Ready ordinance is similar to implementing a Dig Once policy in that both aim to simplify the process of deploying infrastructure through coordinated efforts among entities and agencies. The goal is to streamline the process of deploying future-generation communications infrastructure throughout as much of a locality as possible, while minimizing cost and disruption to the ROW.

This analysis does not include a recommendation that the City enact a One-Touch Make-Ready ordinance at this time because our design anticipates a fully underground network. If the City expects to deploy additional infrastructure on poles in the future, or partner with a private entity that may deploy an aerial network, it may be prudent to explore a One-Touch Make-Ready policy.

It is important to note that Dig Once policies typically govern ROW spaces that a locality owns and over which it has control, whereas a One-Touch Make-Ready ordinance generally applies to poles that the locality may not own, or to which it may not have rights. While these poles are often located in the locality's public ROW, it is unclear to what degree a locality can direct pole owners to provide access to their poles. While CTC cannot provide legal guidance, we note that

Louisville Metro Government in Kentucky¹⁴ and Metro Government of Nashville and Davidson County in Tennessee¹⁵ are currently involved in litigation over One-Touch Make-Ready policies.

In conjunction with the dig-once policy, the City can review its permitting process to determine whether there are areas where these processes can become more streamlined. However, we offer caution to ensure that any streamlining does not compromise coordination and long-term ROW management.

1.7.2.2 Conduct Asset Audit and Carefully Manage any Existing and Expanded Fiber and Conduit Assets

One of the most important steps the City can take is to ensure that it is carefully managing its assets, including conduit and fiber. Whether the City opts to expand its assets or maintain the status quo, fiber strand management on the front end can have enormous benefits over the life of the fiber network, and can save potential confusion and cost in the long run.

One initial step toward this end is to conduct a thorough evaluation of all fiber management documentation the City currently has in place. There may exist documentation in the form of spreadsheets, correspondence, or simple text documents. A full fiber management system may be a necessary long-term investment, but the City cannot evaluate its needs until it understands what it already has available. An audit of existing documentation will enable the City to identify gaps in its fiber strand management—and if any documentation already exists, this can be used to develop an initial fiber map, which can then be built onto as the City expands its network.

We encourage the City to maintain detailed records of all its fiber strands and their locations. The importance of keeping meticulous records does not cease once the network is fully constructed. On the contrary, it is critically important for all ongoing and additional connections made on the network to be documented. Updates should be made to “as-built” and strand management documentation in real time to avoid making mistakes later, misremembering strand allocations, or simply forgetting important items altogether.

Documenting the network’s fibers and strand usage is crucial, and making sure that City staff has unrestricted access to its strand management tools is equally important. Even if the City works with an outside firm to manage this process, we believe that it is a worthwhile investment to appoint a staff person who will become knowledgeable about and maintain

¹⁴ Brodtkin, Jon, "Charter, like AT&T, sues Louisville to stall Google Fiber," *ArsTechnica*, last modified October 5, 2016, accessed January 5, 2017, <http://arstechnica.com/tech-policy/2016/10/charter-like-att-sues-louisville-to-stall-google-fiber/>.

¹⁵ Fingas, Jon, "Comcast sues Nashville over law that helps Google Fiber," *Engadget*, last modified October 26, 2016, accessed January 5, 2017, <https://www.engadget.com/2016/10/26/comcast-sues-nashville-over-google-fiber-law/>.

documentation regarding the location of strands on the City's network. Further, using an intuitive and straightforward system and/or software is also key; this will help guard against such critical knowledge being inaccessible to future iterations of City staff and leadership.

Another key aspect of taking care of its infrastructure is to ensure that the City has access to an on-call fiber maintenance contractor that can perform network repairs on an emergency basis. This contractor should be empowered and required to access the City's fiber management system—even if it is simply a shared spreadsheet—to record any network changes as close to real time as possible. The City will benefit tremendously from taking an inventory of its records and ensuring that anyone involved with the network going forward is accountable for this as well.

As we note in Section 7.4.3, the City can choose to hire new staff, engage existing staff, or contract out for various responsibilities related to managing the network. Generally, the degree to which a locality elects to maintain certain responsibilities internally or contract them out is specific to the unique needs of the locality. That is, each locality has its own structure, hierarchy, and collection of staff with various skill sets, and only the locality can determine which functions it can manage internally versus which responsibilities are best delegated to highly skilled contracted vendors. However, although the City may end up contracting out most responsibilities, we encourage keeping documentation creation and management as an internal function for either existing or new City staff. While there are many competent firms that can perform GIS and other network documentation functions for the City, we believe that because the City has a vested interest in the documentation's integrity, fiber documentation and records management is best performed internally.

1.7.2.3 Construct 0.3 Miles of Fiber to Connect to Internet Point of Presence

We recommend the City construct fiber to the Internet POP at 25070 O'Neil Avenue. This requires approximately 0.3 miles of fiber construction at a cost of approximately \$60,000. Establishing a presence at the Internet POP allows dark fiber customers to access the services offered at the POP. Services could include hosting servers and network electronics in a datacenter environment, accessing multiple ISPs at rates lower than can be achieved at the customer's premises, and direct access to applications providers that may reside at the POP (such as voice over Internet protocol, or VoIP, services providers).

With the connection to the Internet POP, ISPs may be interested in procuring dark fiber from the City to serve businesses in the Industrial Corridor or along the fiber routes. The dark fiber services may also be used by wireless ISPs to provide connectivity to telecommunications towers and distributed antenna systems to provide backhaul for wireless service. Expanded wireless service may be a way to meet some of the network services needs for businesses in the Industrial Corridor.

1.7.2.4 Deploy FTTP In a Concentrated Area in the Industrial Corridor

The City may want to deploy dark FTTP to select areas of the Industrial Corridor. The City should select a targeted area for deployment where it can reach the maximum number of customers with the least amount of fiber construction. The City should take into consideration the following factors when choosing such an area:

- Density of businesses along specific routes;
- Types of businesses within the area (i.e. technology firms typically require more network services than manufacturers);
- Feedback from businesses in the area on their existing needs;
- Presence of multi-tenant office buildings; and
- Feasibility of fiber construction (i.e. minimal railway and interstate crossings, minimal environmental impact, and presence of existing conduit and fiber).

Once the City has selected a target area, the FTTP network should be constructed to support a full FTTP deployment in the future, which may require additional conduit and larger handholes than currently necessary. To complete an FTTP network that will serve approximately 15 percent of businesses, we estimate a cost of approximately \$2.3 million.

*Our analysis indicates that it would cost approximately **\$2.3 million** to serve approximately 15 percent of businesses in the Industrial Corridor.*

Note that because our projection in Section 1.6.1 shows that it would cost approximately \$5.4 million to deploy FTTP to the entire Industrial Corridor, the projected cost to serve only 15 percent of businesses may seem high. However, whether the City deploys FTTP to 15 percent or 100 percent of businesses in the Industrial Corridor, the backbone must be built out and fiber routed to an aggregation point to support network core development.

It is also important to note that this targeted FTTP network will require the City to establish many of the policies and procedures required to support a larger scale FTTP deployment. This approach can help the City capture the cost to build and operate the network, and helps project the potential cost to expand the network to the full Industrial Corridor and other areas.

1.7.2.5 Offer Dark Fiber Strands for Lease to Select High-End Customers

One of our key recommendations is that the City continue to expand its fiber and conduit network as planned, specifically through the Industrial Corridor. The expanded fiber and conduit system will allow the City to begin offering dark fiber services to high-end customers. As customers purchase dark fiber services, the City will construct additional fiber and conduit to the customers—thus expanding the footprint of the existing network.

Dark fiber services include the City offering fiber optic strands between locations without active electronics. The customer would be responsible for the electronics to activate, or “light,” the fiber. In this scenario, the City would only be responsible for maintaining and repairing the fiber. This approach minimizes the City staffing required, as the City would be responsible *only* for the network electronics for the City network. Fiber maintenance and repair can be contracted to a third party, and most of the costs associated with maintaining and repairing the fiber would already be required to run the City’s network.

1.8 Expanding FTTP to Residential Customers Adds Considerable Cost

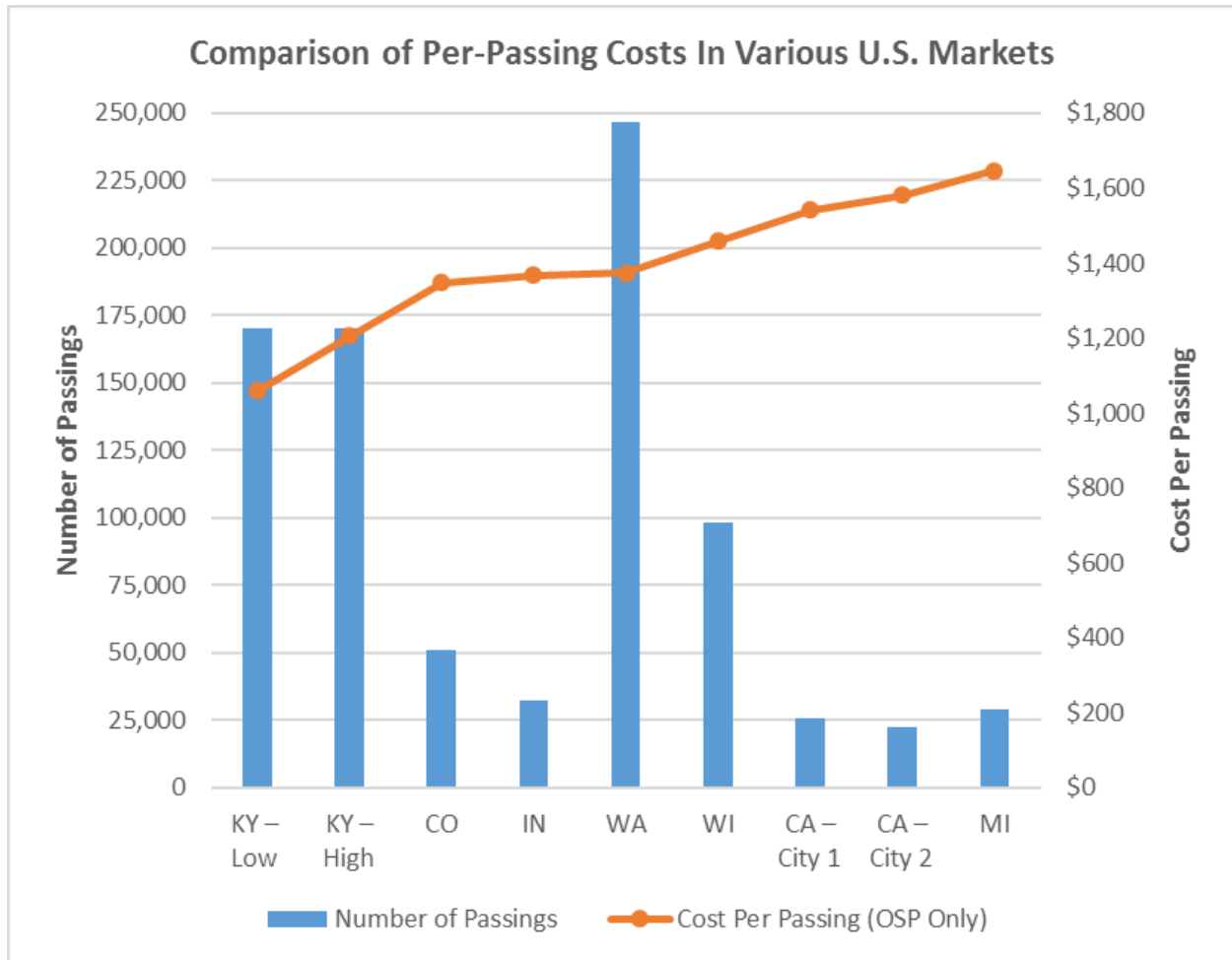
The City aims to eventually consider deploying residential FTTP in addition to serving the Industrial Corridor, and potentially other business customer locations in Hayward. Considering this desire to serve residential users, it is important to understand the potential costs associated with FTTP deployment, and particularly with providing retail service to residential users.

We conducted a high-level analysis of the cost per passing in various states in the U.S., including California, Colorado, Indiana, Kentucky, Michigan, Washington, and Wisconsin. The “per passing cost” is the approximate cost to pass a premises with fiber optics. This cost does not include the cost of the drop cable or the CPEs; it is simply the cost to run fiber in front of a location. Our analysis showed an average per-passing cost of just under \$1,400, based on the per-passing costs in the several communities we evaluated.

It is important to note the per-passing costs ranged from \$1,100 to over \$1,600; as such, we encourage localities to use caution when examining costs estimates from other communities. It is important to note the per-passing costs ranged from \$1,100 to over \$1,600; as such, we encourage localities to use caution when examining cost estimates from other communities. Using this cost range and assuming there are 46,000 residential passings in Hayward results in a fiber per-passing cost estimate of \$50.6 million to \$73.6 million. Actual costs will depend on housing densities, construction types, traffic control requirements, make-ready, and other factors.

Still, even with this caveat, the City can begin to understand through other communities’ experience the kinds of costs it may incur in an FTTP deployment that includes residential customers. Figure 2, below, shows the range of costs that we considered from various markets throughout the U.S. Note that these examples point to a scenario that considers *only* the FTTP outside plant (OSP), or the fiber and conduit associated with the network. These costs do not consider the cost of network electronics necessary to “light” the network. Additionally, these do not include the cost for installing the customer drop cable, which is the fiber extension that connects a customer’s premises to the fiber network.

Figure 2: Comparison of Per-Passing Costs in Various U.S. Markets



2 Broadband Needs and Trends

The need for high-speed broadband is increasingly evident as consumers become more educated on the merits of ultra-fast connectivity. Businesses of all sizes in every industry are finding that their ability to compete successfully depends more than ever on their access to a broadband connection. From manufacturing organizations that rely on high-speed connectivity for automation,¹⁶ to small business owners that need broadband to complete customer transactions and provide WiFi to patrons, businesses' demand is steadily growing.

Further, the workforce is becoming increasingly mobile, and businesses that wish to effectively compete must be aware and accommodating of this reality. Cloud computing and reliable wireless broadband services are two potential areas of significant need for business customers, and examples of accommodating a mobile workforce. Having employees who are mobile and can work from anywhere potentially reduces overhead costs and enables companies to be nimble. As reliable wireless service becomes an integral component of effectively doing business, companies find this is an area where they need significant improvement in dependable connectivity.

Cloud computing—which refers to information technology services, such as software, virtualized computing environments, and storage, available “in the cloud” over a user’s Internet connection—is also changing the way businesses operate. The business drivers behind cloud computing are ease of use and, in theory, lower operating costs. For example, business owners understand that adding a new employee to their growing business requires ample resources. This includes purchasing a computer, installing necessary software, and ongoing software license management. Also, local server and application administration requires either dedicated staff or contracted support.

As an alternative, cloud services eliminate the need to maintain local server infrastructure and software, and instead allow the user to log into a subscription-based cloud service through a web-browser or software client. The cloud is essentially a shift of workload from local computers in the network to servers managed by a provider that make up the cloud. This, in turn, decreases the end user’s administrative burden for information technology (IT) services.

Even where businesses’ needs may be mostly met, many communities have areas that lack reasonably priced, high-speed options for residential customers. Because of this, a pervasive challenge that impacts local businesses is the area's ability to attract and recruit top professional talent. The availability of broadband service varies widely throughout the U.S., and

¹⁶ Chopra, Aneesh, “Insourcing American Jobs: The Importance of “Smart” Manufacturing, Broadband, and IT,” *The White House*, last modified January 14, 2012, accessed September 15, 2016, <https://www.whitehouse.gov/blog/2012/01/14/insourcing-american-jobs-importance-smart-manufacturing-broadband-and-it>.

the small- to medium-size business market tends to lack a range of options to meet these users' needs. Cable and digital subscriber line (DSL) service is typically available to businesses, and options for higher-end services like Metro Ethernet are often available in urban areas. But many communities lack a mid-level service that offers more capacity and reliability than residential-grade cable or DSL, but is less costly than Metro Ethernet and similar dedicated services targeted at large organizations.

This gap represents a market niche that we believe the City may be able to fill by deploying FTTP that can support fiber-based business connectivity. Even if the City does not directly offer services, it can fill broadband availability gaps by enabling one or more private providers to offer services over a robust fiber optic network.

2.1 The City Is Served Similarly to Other Markets, but There Are Still Gaps in Service

Many of the City's services—especially the lowest-priced offerings—provide download speeds far below the Federal Communications Commission (FCC)'s updated definition of broadband of at least 25 Mbps download speed.¹⁷ Further, these tiers may even be “up to,” services, which means that the actual speed a customer experiences is less than the advertised amount. For example, if a customer subscribes to an “up to” 5 Mbps service, they may experience speeds as low as 1 Mbps or even less. Given the FCC's updated definition, these services cannot technically be classified as broadband.

In some cases, the available service tiers that would meet the minimum definition of broadband are priced much higher than many of the City's consumers may be able to afford. Unfortunately, this is not unique to the City. On the contrary, our analysis shows that the available speed tiers and price points in the City are comparable to other markets throughout the U.S. In fact, some of the City's existing available service offerings are priced lower for higher service tiers than in other markets. Further, some businesses in the Industrial Corridor are limited to only DSL service.

As the City considers how to pursue a fiber deployment, it may want to focus on gaps in affordable mid-range service offerings. Some subscribers may opt to purchase low-tier service because it meets their needs, but the current market does not adequately meet the needs of subscribers that desire affordable mid-range service. This often applies to small- and medium-sized businesses that have limited funds to allocate to telecommunications spending, but that require fast, reliable service to conduct their day-to-day business.

¹⁷ “2015 Broadband Progress Report,” *Federal Communications Commission*, last modified February 4, 2015, accessed September 1, 2016, <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2015-broadband-progress-report>.

These users, and potentially others, likely desire more robust and affordable service, as well as better upload speeds. The upload speeds available in the City today are either minimal (as low as 1.5 Mbps in some cases), or are priced very high (\$249.95 per month for 20 Mbps upload for Comcast's small business service). Though upload speeds may not be as important in some markets, the need for improved upload speeds in a city like Hayward is especially prominent, given its location and large business sector.

If the City can directly or in a partnership focus on filling the gap for mid-range services, it may find that this eases the process of introducing a new broadband offering into the market. Competing directly with existing providers to offer roughly the same service that is available today will not set the City or its partner(s) apart in any way. Our analysis shows that the City and the other markets we evaluated seem "well-served," in that there are several providers offering service in the existing market. However, a new offering that is sensitive to availability and supply challenges can address service gaps.

3 Needs Assessment

The City has a range of broadband user groups and stakeholders, and is especially interested in understanding local businesses' connectivity needs. An important part of understanding the potential success of a municipal FTTP deployment is to determine the perceived need for better connectivity options within the community, and willingness to switch to a different service.

To assist in understanding the demand for fiber connectivity and related services, CTC conducted an online survey of Hayward businesses on behalf of the City. Additionally, we compared available services in Hayward to those in select communities, particularly those that identify as "Gigabit Cities." The analysis in this section helps illustrate with broad strokes the potential desire for fiber-based connectivity in the City.

3.1 Business Survey Results

The business survey was designed to collect a range of data to understand current use of Internet and data services, satisfaction with current service providers, and interest in higher-speed Internet and data service offerings. While the survey should not be considered a truly representative sample of all Hayward businesses, it offers some insight into a potential customer base and market in the City, and provides the City with a starting point to understand the service attributes where it may need to focus its efforts.

In general, the survey shows that:

- Most of the respondents represent small- to medium-size businesses;
- Most respondents are not significantly unhappy with most attributes of their current service;
- More than 40 percent of respondents believe the City should have some role in enhancing broadband connectivity options for businesses in Hayward; and
- Approximately 75 percent of respondents would be very or somewhat willing to switch to a 1 Gbps service for \$75 per month, and the willingness steadily drops as the service prices increases.

The full survey results are described in Appendix G: Online Business Survey Results, attached to this Report.

3.2 Comparison of Services in Hayward to Gigabit Communities

As is typical of most cities of similar size in the U.S., the City of Hayward has more than a dozen carriers offering residential, small business, enterprise-grade, and carrier services.

We identified 13 service providers in the Hayward area that offer fiber-based enterprise services, from dark fiber connectivity to data transport services, with speeds that range from 1

Megabits per second (Mbps) to 100 Gigabits per second (Gbps). The carriers that provide enterprise-grade lit services in the Hayward area are:

- Access One
- AT&T
- Comcast
- EarthLink
- Integra
- Level 3
- Line Systems
- MegaPath
- Sonic
- TelePacific
- Windstream
- XO Communications
- Zayo

Four service providers in the City have dark fiber availability:

- Integra
- Level 3
- Line Systems
- Zayo

With respect to the availability and pricing of enterprise-grade services, we have seen that the offerings in Hayward are on par with services in regions of similar size and urbanity. The City has a good mix of facilities-based and non-facilities-based providers, with all the major carriers having an established presence in the City. Prices for services are dependent on bandwidth, location, and network configuration; whether the service is protected or unprotected; whether the service is managed; and whether the customer has a service-level agreement (SLA).¹⁸ The pricing for enterprise grade services have continued to drop over the last several years across the country and we expect that trend to continue in Hayward.

Residential and small business customers in the Hayward area have access to a range of services, though individual service options are dependent on location. The main ISPs in Hayward are AT&T, Comcast, and Sonic. Of these providers, Comcast offers fiber-based internet services up to 2 Gbps. There are also wireless ISPs (WISPs), such as Etheric Networks and Cruzio, and satellite-based services available in the City.

¹⁸ An agreement between a provider and a customer that outlines certain parameters about the service an end user can expect; for example, an SLA may indicate that, in the event of an outage, the provider has a limited amount of time to restore service.

The key difference that we see between the residential and small business services in the City in comparison to other communities that have municipal broadband or fiber-to-the-home (FTTH) by a provider like Google Fiber is the ubiquity of service. Though Comcast offers gigabit services in Hayward, the availability of the service would vary based on location and most likely only if there was a strong business case to warrant an expansion of service to a particular location.

With regard to pricing, we have seen communities with a municipality backed service offering price gigabit services from \$50 (in Longmont, Colorado), to \$100 (in Westminster, Maryland) per month, with low installation costs.¹⁹ Google Fiber offers its residential 1 Gbps services at \$70 per month with waived installation costs with a 1-year contract (typically \$100).²⁰ In comparison, the service provided by Comcast in Hayward is for the 2 Gbps speed at \$299.95 per month and requires a two-year contract, plus \$1,000 in upfront installation and activation fees.

We have provided an assessment of the broadband service available in the City in Appendix B.

¹⁹ In such cases, the municipality has made a substantial capital and/or operating investment in the network, which potentially enables lower service prices than scenarios of purely private investment.

²⁰ <https://fiber.google.com/cities/kansascity/plans/>, accessed June 2016

4 Operational and Business Model Options

There are several business models that the City can consider for its fiber deployment. Overall, we believe that the City's key focus should be to deploy fiber in at least select areas of the community, such as the Industrial Corridor. We believe that the City is most likely to be successful if it focuses on infrastructure, and works to lower barriers to market entry for the private sector. By doing this, the City can encourage competition and increase the range of service options available to consumers, but it does not have to take the enormous risk of becoming a service provider and competing with established providers.

The dark FTTP model will have the least risk for the City because it does not entail operational unknowns like a retail service model. Managing agreements with and providing service to end users is generally expensive and unpredictable, and—unlike the dark FTTP model—is not an approach for which the City is already at least partially equipped. Even a wholesale service model carries more risk than a dark FTTP model because there are additional costs and uncertainties associated with maintaining network electronics.

A dark FTTP model is essentially a public works model, in that fiber is simply infrastructure, which the City is already accustomed to managing. This approach allows the City to play to its strengths, and carefully navigate around its potential vulnerabilities (e.g., not having the expertise to successfully market retail service).

If the City determines that a dark FTTP model does not appropriately achieve its goals in the short term, it can opt to pursue a retail service model, where the City becomes the provider and offers services directly to end users. This model carries greater risk for the City because of the marketing, advertising, competition, and customer service components. While it is challenging for a municipality to become a retail service provider, it is not impossible, and the City can choose this path. We recommend this model only if the City finds that it is for some reason unable to pursue a dark FTTP model, or if it is unable to attract a partner to offer services over a City-owned network.

A wholesale service offering is a “middle ground” between a dark FTTP approach and the City becoming a retail service provider. In a wholesale service offering, the City would deploy the FTTP network, and would add network electronics to “light” the fiber. It would then offer “lit services” over the network to one or more ISPs. This model is attractive in that it potentially enables numerous ISPs to offer services. In a dark FTTP model, on the other hand, one provider may control the strands to a location and may or may not offer lit services to a competing provider. The wholesale service offering could potentially help the City achieve open access goals it may have.

4.1.1 Staffing Considerations for Various Business Models

Each of the potential business models we outlined in Section 1.5 requires some additional staffing. Consistent with our assertion that the dark FTTP model entails the least risk for the City, this model requires the lowest investment in additional staff. Similarly, the retail service model requires the greatest investment in additional staff, while the wholesale service model is between these.

For a dark FTTP model, we anticipate that the City will likely need to add 1.5 full time employees (FTEs) in year one, and 2.75 FTEs in year two and beyond. This model requires primarily fiber infrastructure and management staff, with some minimal sales requirements. The “marketing” necessary for this model is restricted to working directly with providers to encourage them to lease access to the City’s dark FTTP network.

Table 3: Staffing for Dark FTTP Business Model

New Employees	Year 1	Year 2	Year 3	Year 4	Year 5+
Business Manager	0.50	0.50	0.50	0.50	0.50
GIS	0.50	1.00	1.00	1.00	1.00
Communications - Sales	0.25	0.25	0.25	0.25	0.25
Customer Service Representative	-	-	-	-	-
Service Technicians/Installers & IT Support	-	-	-	-	-
Fiber Plant O&M Technicians	0.25	1.00	1.00	1.00	1.00
Total New Staff	1.5	2.75	2.75	2.75	2.75

Projections for necessary staff increase slightly for a wholesale service model. We anticipate that the City will need to increase staffing by approximately 2.5 FTEs for this model in year one; 4.25 FTEs in years two and three; and 5.25 FTEs in year four and beyond. Because this model requires the City to “light” the fiber by adding network electronics, IT support staff and additional GIS support is added in this model. The sales requirements for this model will be similar to a dark FTTP model: convince private providers to purchase services on the City’s network, though in this case providers will purchase “lit” services from the City.

Table 4: Staffing for Wholesale Service Model

New Employees	Year 1	Year 2	Year 3	Year 4	Year 5+
Business Manager	0.50	1.00	1.00	1.00	1.00
GIS	0.50	1.00	1.00	1.00	1.00
Communications - Sales	0.25	0.25	0.25	0.25	0.25
Customer Service Representative	-	-	-	-	-
Service Technicians/Installers & IT Support	1.00	1.00	1.00	2.00	2.00
Fiber Plant O&M Technicians	0.25	1.00	1.00	1.00	1.00
Total New Staff	2.5	4.25	4.25	5.25	5.25

For the retail service model, these numbers increase again because of the addition of a customer service representative. This function is necessary in a retail model, whereas in other models the City will not directly manage or interact with end users. The retail model anticipates a total of 4.75 FTEs in year one, 8 FTEs in years two and three, and 9 FTEs in year four and beyond.

Table 5: Staffing for Retail Service Model

New Employees	Year 1	Year 2	Year 3	Year 4	Year 5+
Business Manager	0.50	1.00	1.00	1.00	1.00
GIS	0.50	1.00	1.00	1.00	1.00
Communications - Sales	0.50	2.00	2.00	2.00	2.00
Customer Service Representative	2.00	2.00	2.00	2.00	2.00
Service Technicians/Installers & IT Support	1.00	1.00	1.00	2.00	2.00
Fiber Plant O&M Technicians	0.25	1.00	1.00	1.00	1.00
Total New Staff	4.75	8	8	9	9

4.2 Fiber Management Requirements

One of the most important steps the City can take is to ensure that it is carefully managing its assets, including conduit and fiber. Whether the City opts to become a retail service provider or simply provide access to its dark FTTP network, fiber strand management on the front end can have enormous benefits over the life of the fiber network, and can save potential confusion and cost in the long run.

Even—or, perhaps, *especially*—if the City contracts out the construction of fiber network, we encourage the City to maintain detailed records of all its fiber strands and their locations. This process is extremely important during the construction phase of the network, and is easiest to carry out during this phase. As construction is underway to build or expand fiber, the City can allocate a staff member or work with a firm to keep track of its fiber usage, which will lay the foundation for ensuring the network’s long-term usability and growth.

However, the importance of keeping meticulous records does not cease once the network is fully constructed. On the contrary, it is critically important for all ongoing and additional connections made on the network to be documented. Updates should be made to “as-built” and strand management documentation in real time to avoid making mistakes later, misremembering strand allocations, or simply forgetting important items altogether.

Documenting the network’s fibers and strand usage is crucial, and making sure that City staff has unrestricted access to its strand management tools is equally important. Even if the City works with an outside firm to manage this process, we believe that it is a worthwhile investment to appoint at least one staff person who will become knowledgeable about the location of strands on the City’s network. Further, using an intuitive and straightforward system and/or software is also key; this will help guard against such critical knowledge being inaccessible to future iterations of City staff and leadership.

4.3 Dig Once Considerations

We recommend that in the coming months, the City consider modifying its ROW ordinance to provide the City with the option of obtaining conduit on routes where utilities are performing excavation. This type of “Dig Once” policy would require any excavation plans fitting specified criteria to include municipal use conduit or fiber, unless the City opts out of the excavation project. This would require the installation of City communications infrastructure in excavation projects where the City determines that it is both financially feasible and consistent with the municipality’s long-term goals to develop the communications infrastructure.

Such a policy can reduce the cost of the conduit to the City by 25 percent to 75 percent relative to the cost of a standalone construction project if it installs or has conduit installed in coordination with other excavation. A Dig Once approach can also reduce the impact on ROW and inconvenience to the public.

4.3.1 The Case for Dig Once Policies

The construction of fiber optic communications cables is a costly, complex, and time-consuming process. The high cost of construction is a barrier to entry for potential broadband communications providers. In addition, available space is diminishing in the public ROW. Moreover, cutting roads and sidewalks substantially reduces the lifetime and performance of those surfaces.

Accordingly, encouraging or requiring simultaneous construction and co-location of facilities in the public ROW will reduce the long-term cost of building communications facilities. This is because there are significant economies of scale through:

1. Coordination of construction with road construction and other disruptive activities in the public ROW.
2. Construction of spare conduit capacity where multiple service providers or entities may require infrastructure.

The reason that these economies are available is primarily because fiber optic cables and installation materials alone are relatively inexpensive, often contributing to less than one-quarter of the total cost of new construction. While material costs typically fall well below \$40,000 per mile (even for large cables containing hundreds of fiber strands), labor, permitting, and engineering costs commonly drive the total price toward \$200,000 per mile if conducted as a stand-alone project.

Moreover, as the ROW becomes more crowded with communications infrastructure and other utilities, the cost of new construction can grow rapidly. In general, however, it is in the best interests of both public and private entities for the public sector to identify construction collaboration opportunities that share the burden of expensive and duplicative labor-related costs and efficiently use physical space in the ROW.

If fiber construction is coordinated with a major road or utility project that is already disrupting the ROW in a rural area, the cost of constructing the fiber, communications conduit, and other materials can range from \$10,000 per mile up. However, if fiber construction is completed as part of a separate stand-alone project, the cost of constructing fiber and communications conduit can range from \$95,000 to \$200,000 per mile and even higher in complex urban environments.

There are numerous methods for constructing fiber optic infrastructure. Underground construction using protective conduits generally provides the most scalable, flexible, and durable method for developing long-term communications infrastructure, but is also typically more expensive than aerial construction methods requiring attachments to utility poles. Underground construction can be preferable despite the cost because of the limit in the quantity of cables and attachments that can be placed on existing utility poles in more crowded areas, and because aerial construction is more exposed and vulnerable to outside conditions.

Banks of conduits constructed simultaneously or large conduits segmented with innerduct, provide multiple pathways for the installation of multiple fiber optic cables located in close

proximity, with the ability to remove, add, or replace fiber optic cables without disturbing neighboring cables.

Conversely, multiple conduits installed at different times must be physically spaced, often by several feet, to prevent damage to one while installing the next. Once the ROW becomes crowded, often the choices of construction methods are reduced, leaving only less desirable methods and more costly locations for construction of additional infrastructure.

Some of the key savings achieved through coordinated construction efforts include:

- Incremental labor and material costs, through reduced crew mobilization expenses and larger bulk material purchases
- Trenching or boring costs, particularly when coordination enables lower-cost methods (e.g., trenching as opposed to boring) or allows multiple entities to share a common trench or bore for their independent purposes
- Traffic control and safety personnel costs, particularly when constructing along roadways requiring lane closures
- Engineering and survey costs associated with locating existing utilities and specifying the placement of new facilities
- Engineering and survey costs associated with environmental impact studies and approvals
- Lease fees for access to private easements, such as those owned by electric utilities
- Railroad crossing permit fees and engineering
- Restoration to the ROW or roadway, particularly in conjunction with roadway improvements
- Bridge crossing permit fees and engineering

4.3.2 Coordinating Conduit Construction with Other Utility Projects Reduces Costs

Where other types of construction are occurring within or along the ROW, such as road construction or resurfacing, roadway widening, sidewalk repairs, bridge construction, and water or gas main installation, there is an opportunity to place telecommunications infrastructure at an overall reduced cost and with reduced disruption to public ROW.

4.3.3 Standard Specification

The challenge in developing a standard specification for a Dig Once project is to incorporate the requirements of known and unknown users, and to provide sufficient capacity and capability without excessive costs.

We considered the following factors in developing a conduit specification:

1. Capacity—sufficient conduit needs to be installed, and that conduit needs to have sufficient internal diameter, to accommodate future users' cables and to be segmented to enable conduit to be shared or cables added at a future date
2. Segmentation—users need to have the appropriate level of separation from each other for commercial, security, or operational reasons
3. Access—vaults and handholes need to be placed to provide access to conduit and the ability to pull fiber. Vaults need to be spaced to minimize the cost of extending conduit to buildings and other facilities that may be served by fiber
4. Costs—materials beyond those that are likely to be needed will add cost, as will the incremental labor to construct them. Beyond a certain point, trenches need to be widened or deepened to accommodate conduit
5. Robustness—the materials, construction standards, and placement need to reasonably protect the users' fiber, and not unduly complicate maintenance and repairs
6. Architecture—sweeps, bend radius, and vault sizes need to be appropriate for all potential sizes of fiber

We recommend further discussions with private carriers to better develop a specification. It may be appropriate to have a different specification for different projects. Based on our knowledge of similar efforts in other cities, and our analysis, we believe the following standardized approach is suitable for major corridors and can be modified as discussions continue with excavators in the rights-of-way:

- Four two-inch conduit, minimum SDR 11 High-density polyethylene (HDPE), each of a separate color or unique striping to simplify identification of conduits within vaults and between vaults, in the event conduit must be accessed or repaired at intermediate points. Conduit count can be reduced if the Industrial Corridor is assessed not to justify the capacity.
- Composite anti-theft vaults having dimensions of 30" x 48" x 36" (W x L x D), placed in the sidewalk or available green space within the city or municipality ROW, as close to the curb or gutter as possible.
- Vaults spaced at intervals of 600 feet or less, typically at the intersection of a city or municipality block.
- Sweeping conduit bends with a minimum radius of 36 inches to allow cable to be pulled without exceeding pull-tension thresholds when placing high-count fiber cables (e.g., 864-count).
- Conduit placed in the same trench directly above the excavator's infrastructure or, where this is not possible, placed with minimum horizontal offset, to minimize cost.

It is important to note that the proposed approach is designed to create consistency and predictability in costs and deployment and is a necessary compromise among the potential users. If an excavation project has a long-time horizon and sufficient budget, it is possible to customize the Dig Once build, potentially adding conduit or adding vaults at particular locations. This plan provides a baseline approach.

The approach is a compromise among different types of users of conduit constructed under *dig once*. Some users might prefer larger conduit for consistency with earlier builds. Others sought a larger count of smaller conduit, to provide more flexibility and the capability for more providers to participate with smaller cable counts.

Two-inch conduit has become a standard size for a wide range of construction projects, and can support the widest range of use cases. A single two-inch conduit can accommodate a range of multi-cable configurations, while retaining recommended fill ratios, allowing a single user to serve its backbone and “lateral”/access cable requirements with a single, dedicated conduit. A few example cable configurations supported by a single two-inch conduit, which are not supported by smaller conduit, include:

- Two medium backbone cables (e.g., 144-strand to 288-strand cables) and one smaller “feeder” cable (e.g., 24-strand cable);
- Large backbone cable (e.g., 864-strand) and two or more smaller feeder cables; or
- Three medium backbone cables.

Compared to placing fewer, larger conduits segmented with innerduct, this approach provides greater opportunity for individual conduit to be intercepted and routed for future vault installation by a particular user. Additionally, two-inch conduit is substantially cheaper to install and physically more flexible than larger varieties, offering more options to route around existing utilities and other obstructions. Placing four conduit will provide a standard allotment of one or two conduit for State or municipality use and provide capacity for other use and for spares.

We recommend SDR 11 HDPE in all cases except where conduit is exposed to the elements (for example, as a riser to building entry), or under extreme levels of pressure (such as under a train or trolley track). SDR 11 HDPE designs will generally support standard highway and railway loads with less than 1 percent deflection when buried with two feet of cover.

5 Proposed Fiber Design

5.1 Construction Methodology

Our analysis assumes underground construction will consist primarily of horizontal, directional drilling to minimize ROW impact and to provide greater flexibility to navigate around other utilities. There are a variety of methods for underground construction, including plowing, trenching, directional boring, and microtrenching.

Plowing is generally the cheapest construction method, and is performed in unpaved areas where little subsurface rock is present, and the fiber route maintains a straight path (e.g., along a highway). The plowing machine pushes away dirt, inserts conduit and covers the conduit with the backfill.

Trenching is similar to plowing in that a narrow hole is dug and conduit is laid and the bottom of the trench, and is then covered with backfill. Unlike plowing, trenching can be performed in most situations but may not be cost-effective when expensive restoration is required to return the streets or rights-of-way to their original (i.e., pre-installation) condition.

Directional Boring is a process in which conduit is placed by drilling horizontally underground without disturbing the surface. The boring machine pushes a long drill that displaces the dirt underground so that a conduit can be installed. The direction and depth of the directional bore can be altered to navigate around other existing utilities. Directional boring is ideal in situations where trenching is not feasible, such as stream and railroad crossings.

Microtrenching uses a specialized saw blade to cut a small trench about a foot deep into the road or sidewalk subsurface. Very tiny conduit is inserted and covered with backfill, and the cut or “microtrench” is then sealed. Specialized fiber is then blown through the conduit system. Microtrenching is best suited for areas where the cost to perform surface restoration is high and roadway construction is not anticipated.

Underground construction costs are subject to uncertainty related to utilities congestion in the public rights-of-way, and the prevalence of subsurface hard rock—neither of which can be fully mitigated without physical excavation and/or testing. Surface restoration requirements can also greatly impact the cost of underground construction. For, example unpaved land is far less expensive to restore than cobblestone streets.

This analysis estimated costs for underground infrastructure placement using available unit-cost data for materials and estimates on the labor costs for placing, pulling, and boring fiber based on construction in comparable markets.

5.2 Overview of Existing Assets

We compiled an inventory of Hayward's current and planned broadband assets, data, and related information. During the process, the City provided documentation of its fiber and conduit. At the City's request, we focused on how the City's assets could be leveraged for future plans, relying on existing documentation rather than performing new surveys and condition assessments. To complete our assessment, we requested several pieces of GIS data from the City, including:

1. Political boundaries
2. Hydro layers (rivers, wetlands, etc.)
3. Rights-of-way/property Lines
4. Street centerlines
5. Street polygons
6. Sidewalk/parking lot polygons
7. Address points
8. Building polygons
9. City facilities
10. Parks and green spaces
11. Existing conduit and fiber
12. Existing assets
13. Huts
14. Water towers
15. Special development areas
16. Any other utility information

We discussed with the City any known plans for constructing fiber and conduit in the future, including:

1. Planned public works projects
2. Current and planned construction by private contractors, utilities, and others

We note that this type of investigation aligns with our longstanding guidance to municipal clients to take advantage of public or private sector construction that creates an opportunity to install City-owned conduit or fiber.

5.2.1 City Conduit and Fiber

Based on the City's GIS data, the City constructed and operates 14.1 miles of fiber and 13.6 miles of conduit. Approximately nine miles of the infrastructure is a U-shaped core fiber path made up of 60-strand cables, which run along Hesperian Boulevard, Mission Boulevard, and Winton Avenue. In addition, a 48-count cable extends north of Winton Avenue on Hesperian

Boulevard, and 24-strand cables extend along Harder Road from Mission Boulevard to Tarman. 24-strand cables extend the Winton Avenue fiber west of Hesperian Boulevard and down Clawiter Road. There is fiber on Enterprise Avenue from Clawiter Road to a water treatment plant. The City also expects to install fiber as part of a project related to California State Route 238, south of Industrial and north of A Street, along Mission Boulevard.

The City's conduit follows much of the same path, including lateral extensions into City Hall, Fire Stations 1 and 4, Hayward Executive Airport, and the Water Pollution Control Facility. Based on conversations with City engineers, most of the existing conduit is 2 inches in diameter with notable exceptions of the conduit along Hesperian Boulevard between Panama Street and Industrial Boulevard, which is 1.5 inches in diameter, and the newer conduit along Mission Boulevard, which is 2.5 inches in diameter.

Vaults, or pull boxes, are generally located every 500 to 600 feet along the fiber path. City engineers indicated that, with some exceptions, pull boxes along Hesperian Boulevard, Harder Road, Clawiter Road, and Mission Boulevard are generally in good condition. Pull boxes along Winton Avenue require some repair work, and fiber along Hesperian Boulevard from Fire Station 4 to Winton Avenue should be further evaluated. Most of the conduit only contains one cable, which means there is room for future additions. City staff reports that the fiber is primarily used for traffic and fire station communications.

Based on our discussions with the City, there is not innerduct or pull cables in this conduit. Standards for fiber and conduit construction have largely been determined by individual contractors hired by the City. It is our understanding that the City is developing a construction standard for future projects.

An additional 27 miles of planned fiber and conduit construction will expand the City's fiber backbone and allow for future expansion in new areas, including multiple paths through the City's Industrial Corridor. In addition to expanding the reach of the City's core loop, the additional fiber will create several loop structures that will allow for redundant connections over diverse physical paths. The proposed fiber also includes connections to Fire Station 3, Weekes Branch Library, and the Hayward Area Recreation & Park District office as well as a loop through the California State University (CSU) East Bay campus. The new fiber would also pass several other community institutions, including schools, parks, and hospitals. The existing conduit and fiber routes are shown alongside proposed future routes in Figure 3 and Figure 4.

Figure 3: Existing and Proposed City-Constructed Infrastructure

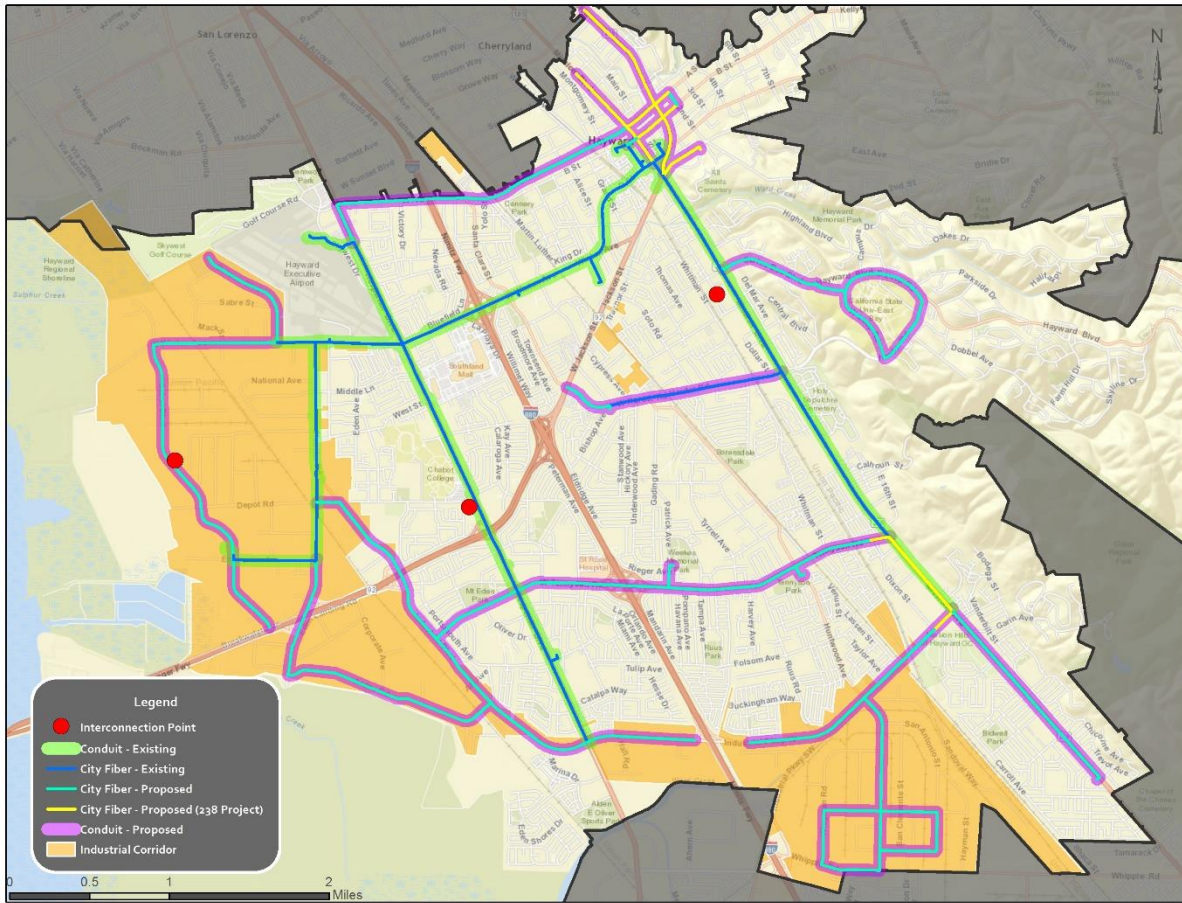
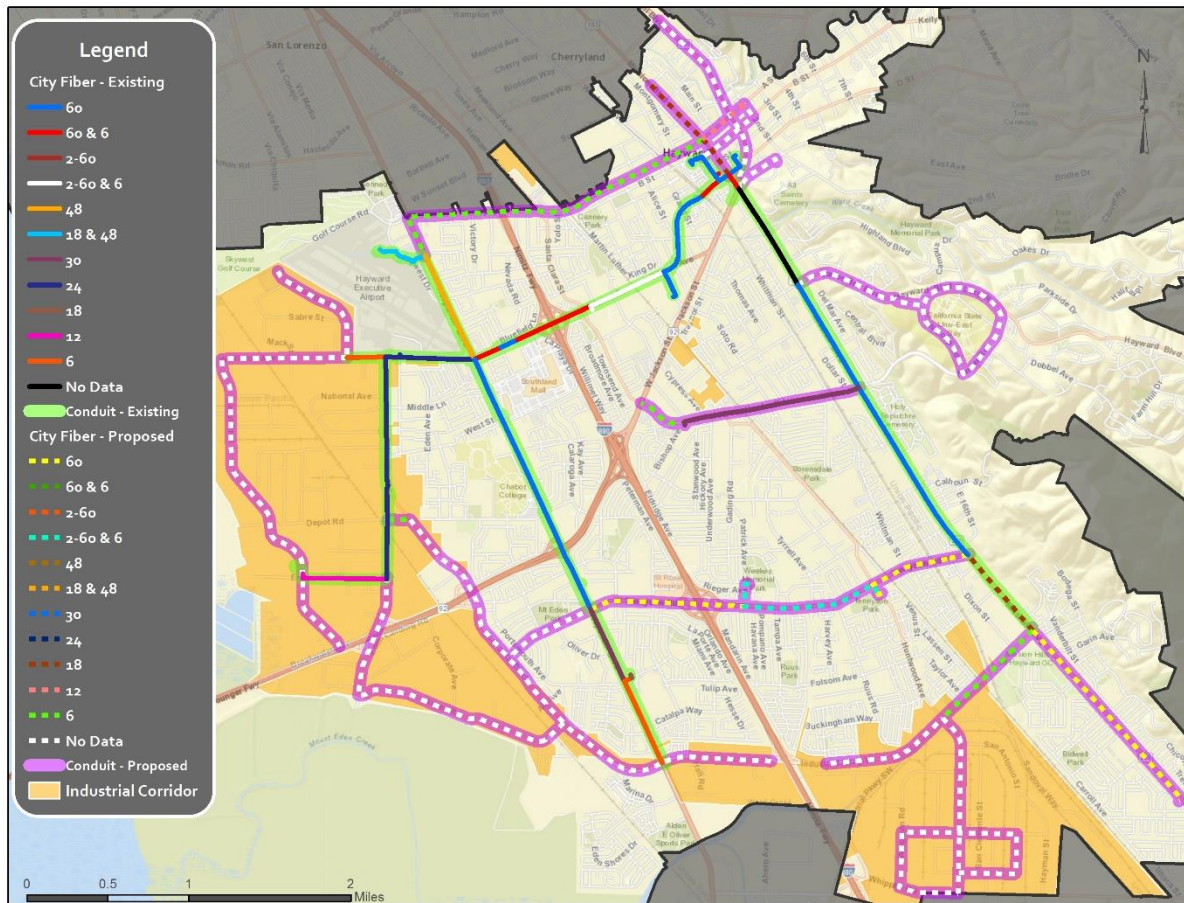


Figure 4: Existing and Proposed City-Constructed Fiber by Strand Count



During our review of the City’s records, City staff reported that the City does not currently maintain records of fiber assignment, fiber use, and splice matrices, and that available GIS data does not necessarily include all the City’s assets. We recommend that, going forward, the City include fiber assignment and splice matrices in its documentation efforts as this will aid in troubleshooting, future construction, and allocation of fiber strands.

5.3 Leverage Existing Assets

The existing conduit and fiber assets provide a starting point from which the City can expand. The proposed fiber builds will increase the resiliency of the network and allow the City to reach new key areas and institutions such as the Industrial Corridor. The existing strand counts, however, may not be sufficient for future needs.

If the City desires to significantly expand its fiber service, it should examine its current and future fiber needs and use strand counts that accommodate those needs plus those of potential external fiber users in new construction. Where higher strand counts are not available, new

cables can be pulled into the existing conduit if sufficient space is available. Where space is not available, new cables can replace the smaller cable to provide enhanced fiber counts along routes.

Future public works projects should also be leveraged to expand the City's conduit and fiber network. Projects such as utility replacements, road widenings, and other major capital improvements may provide the opportunity to install conduit and fiber optics without the need for surface restoration. A coordinated Dig Once ordinance, which typically requires the installation of City-owned communications infrastructure in excavation projects where the City has determined that it is both financially feasible and consistent with the City's long-term goals, is recommended to leverage these types of public and private excavation projects.

There may also be opportunities for the City to engage further with private partners to serve the Industrial Corridor. The City could, for example, provide transport for service providers that need to reach existing and potential customers as well as strategic peering points such as Internet POPs or data centers in another part of the City. The City may offer conduit to reduce construction costs to the Industrial Corridor—however, as we noted above, we do not recommend this approach.

We have identified three potential connection points within the City:

1. 25070 O'Neil Avenue
2. 21350 Cabot Boulevard²¹
3. 1880 Depot Road

The O'Neil Avenue location is an Internet POP where the City may be able to interconnect with other national and regional networks including Zayo. This POP is close to Route 238 where the City is planning to construct new fiber. The City may be able to arrange for connectivity at this site and include it in the Route 238 project construction so that it may offer transport or use the connectivity for its own purposes.

The Cabot Boulevard location is a Verizon data center approximately 1 mile west of the City's conduit along Clawiter Road.

The Depot Road location is an incumbent local exchange carrier (ILEC) central office, located next to the City's fiber and conduit along Hesperian Boulevard. If it is determined that interconnection services are available at this location, the City may want to take advantage of its proximity to existing fiber.

²¹ <https://fiberlocator.com>, accessed June 2016.

5.4 Conceptual Design and Specifications – Industrial Technology & Innovation Corridor

OSP (layer 1, also referred to as the physical layer) is both the most expensive part of the network and the longest lasting. The architecture of the physical plant determines the network's scalability for future uses and how the plant will need to be operated and maintained; the architecture is also the main determinant of the total cost of the deployment.

Figure 5 (below) shows a logical representation of the high-level FTTP network architecture we recommend for deployment to the Industrial Corridor. This design is open to a variety of architecture options. The figure illustrates the primary functional components in the FTTP network, their relative position to one another, and the flexibility of the architecture to support multiple subscriber models and classes of service.

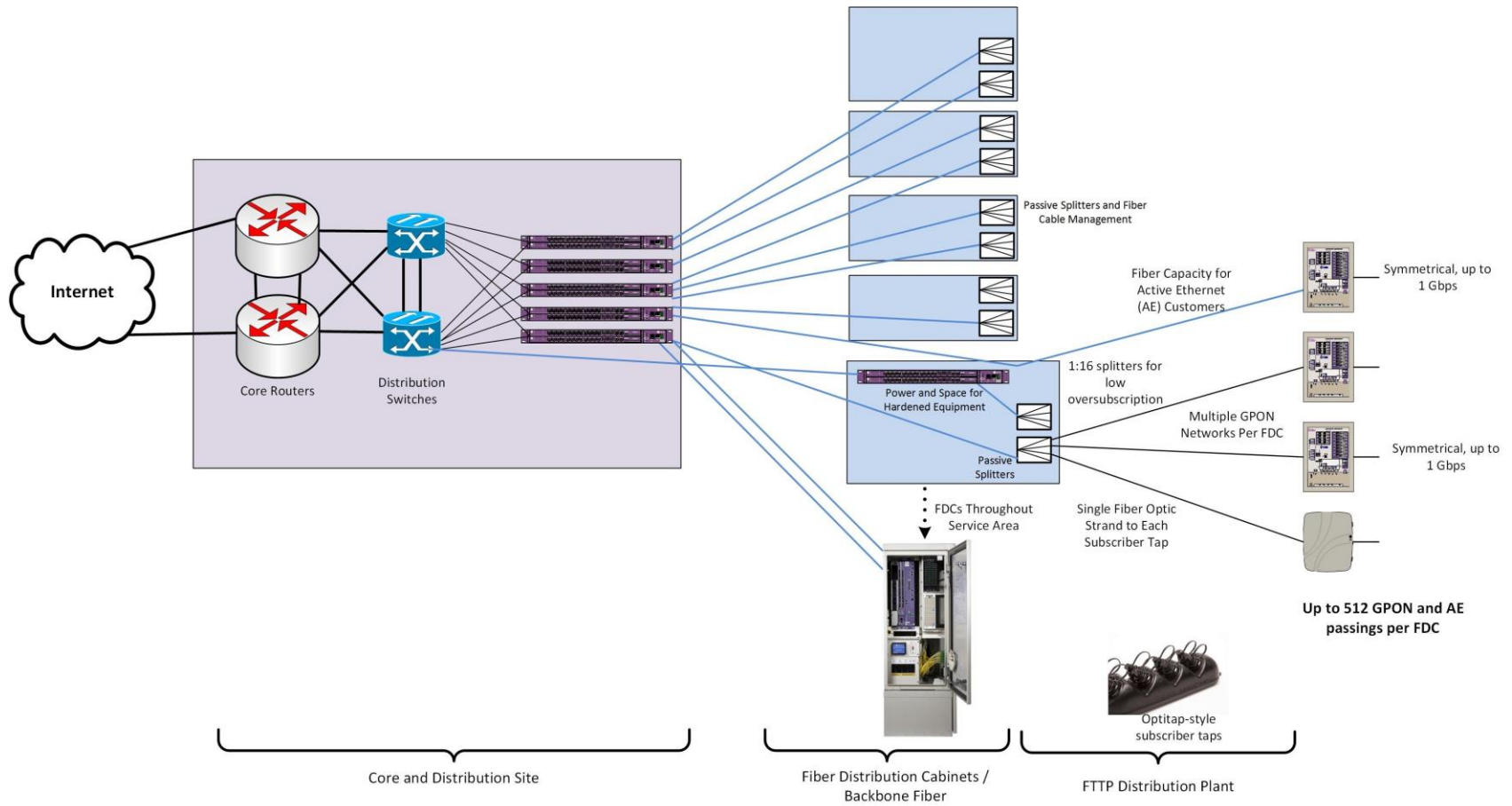
The recommended architecture is a hierarchical data network that provides critical scalability and flexibility, both in terms of initial network deployment and its ability to accommodate the increased demands of future applications and technologies. The characteristics of this hierarchical FTTP data network are:

- Capacity – ability to provide efficient transport for subscriber data, even at peak levels
- Availability – high levels of redundancy, reliability, and resiliency; ability to quickly detect faults and re-route traffic
- Diversity – physical path diversity to minimize operational impact resulting from fiber or equipment failure
- Efficiency – no traffic bottlenecks; efficient use of resources
- Scalability – ability to grow in terms of physical service area and increased data capacity, and to integrate newer technologies
- Manageability – simplified provisioning and management of subscribers and services
- Flexibility – ability to provide different levels and classes of service to different customer environments; can support an open access network or a single-provider network; can provide separation between service providers on the physical layer (separate fibers) or logical layer (separate virtual local area network (VLAN or VPN)
- Security – controlled physical access to all equipment and facilities, plus network access control to devices

This architecture offers scalability to meet long-term needs. It is consistent with best practices for an open access network model that might potentially be required to support multiple network operators, or at least multiple retail service providers requiring dedicated connections to certain customers. This design would support a combination of Gigabit passive optical network (GPON) and direct Active Ethernet (AE) services (with the addition of electronics at the Fiber Distribution Cabinets (FDCs)), which would enable the network to scale by migrating to direct connections to each customer, or reducing splitter ratios, on an as-needed basis.

The design assumes placement of manufacturer-terminated fiber tap enclosures within the ROW or easements, providing water-tight fiber connectors for customer service drop cables and eliminating the need for service installers to perform splices in the field. This is an industry-standard approach to reducing both customer activation times and the potential for damage to distribution cables and splices. The model also assumes the termination of standard lateral fiber connections within larger multi-tenant business locations.

Figure 5: High-Level FTTP Architecture



5.4.1 Network Design

The network design and cost estimates assume the City will:

- Use existing fiber and conduit to connect to an Internet POP in the City;
- Procure space at the POP to host network electronics and provide backhaul to the Internet;
- Use existing City land or ROW space in the Industrial Corridor to locate the core and distribution hub facility with adequate environmental and backup power systems to house network electronics;
- Construct fiber to connect the hub to the FDCs;
- Construct fiber optics from the FDCs to each business (i.e., from termination panels in the FDC to tap locations in the ROW or on City easements); and
- Construct fiber laterals into large, multi-tenant business facilities.

Leveraging the City's existing conduit and fiber resources could decrease the costs associated with both constructing a backbone and identifying locations to house electronics that are near the City's existing resources.

The FTTP network and service areas were defined based on the following criteria:

- Targeting 512 passings per FDC;
- FDCs suitable to support hardened network electronics, providing backup power and an active heat exchange;²² and
- Avoiding the need for distribution plant to cross major roadways and railways.

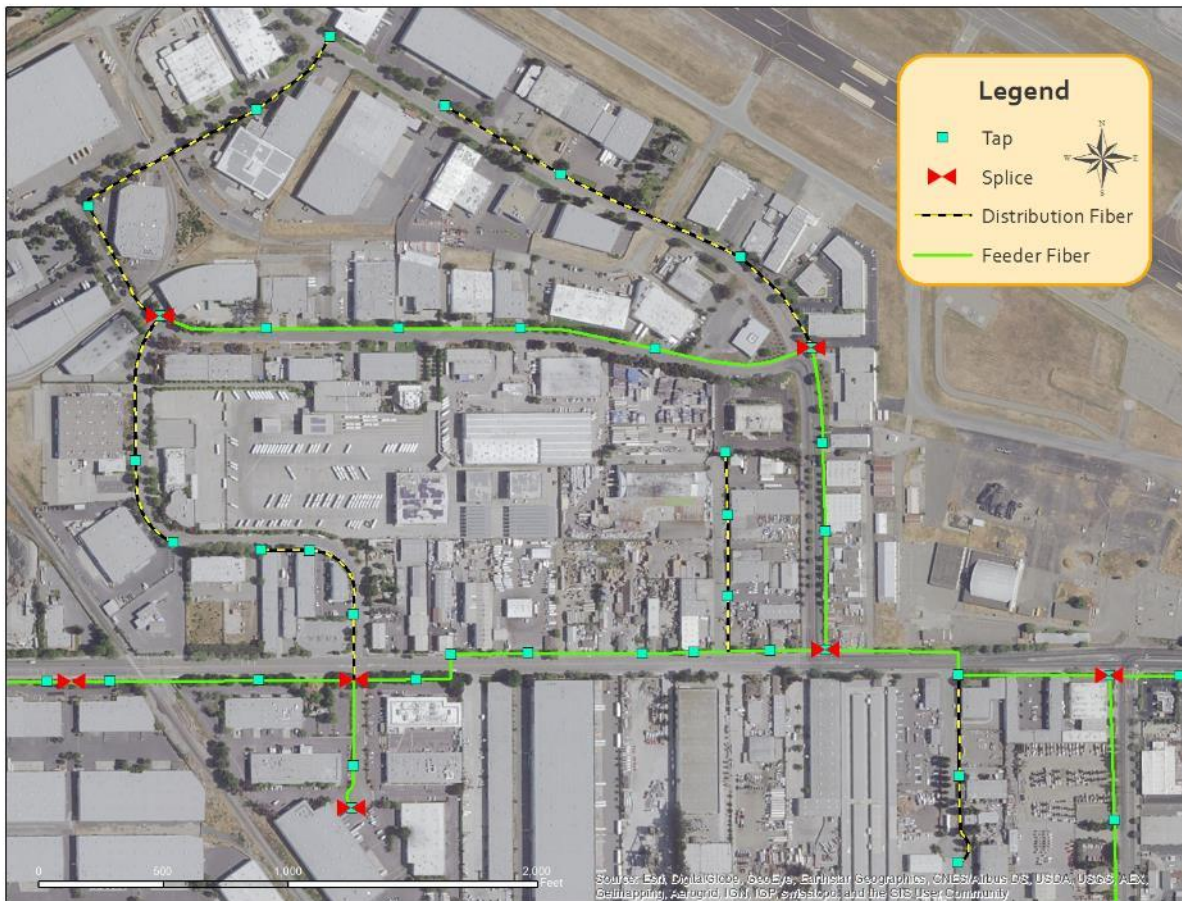
Coupled with an appropriate network electronics configuration, this fiber design serves to greatly increase the reliability of services provided to customers as compared to that of more traditional cable and telephone networks.

The access layer of the network, which encompasses the fiber plant from the FDCs to the customers, dedicates a single fiber strand from the FDC to each passing (i.e., potential customer

²² These hardened FDCs reflect an assumption that the City's operational and business model will require the installation of provider electronics in the FDCs that can support open access among multiple providers. We note that the overall FTTP cost estimate would decrease if the hardened FDCs were replaced with passive FDCs (which would house only optical splitters) and the providers' electronics were housed only at hub locations.

address). This traditional FTTP design allows either network electronics or optical splitters in the FDCs. See Figure 6 below for a sample design.

Figure 6: Detail Showing FTTP Access Layer Design



This architecture offers scalability to meet long-term needs. It is consistent with best practices for an open access network model that might potentially be required to support multiple network operators, or at least multiple retail service providers requiring dedicated connections to certain customers.

5.4.2 Network Core and Hub Site

The core site is the bridge that links the FTTP network to the public Internet and deliver all services to end users. The proposed network design includes a single core location given the size of the network. However, if consumer demand dictates it, a second Internet POP could be added to increase redundancy to the network.

For the cost estimate, we assumed that the core site electronics would be collocated with the distribution electronics in the Industrial Corridor hub with connectivity to the Internet POP at 25070 O'Neil Avenue.

The core will also house the providers' Operational Support Systems (OSS) such as provisioning platforms, fault and performance management systems, remote access, and other operational support systems for FTTP operations. The core location is also where any business partner or content / service providers will gain access to the subscriber network with their own POP. This may be via remote connection, but collocation is recommended.

The core network electronics run in a High Availability (HA) configuration, with fully meshed and redundant uplinks to the public Internet and/or all other content and service providers. It is imperative that core network locations are physically secure and allow unencumbered access 24x7x365 to authorized engineering and operational staff.

The operational environment of the network core and hub locations is similar to that of a data center. This includes clean power sources, UPS batteries, and diesel power generation for survival through sustained commercial outages. The facility must provide strong physical security, limited/controlled access, and environmental controls for humidity and temperature. Fire suppression is highly recommended.

Equipment is to be mounted securely in racks and cabinets, in compliance with national, state, and local codes. Equipment power requirements and specification may include -48-volt DC and/or 120/240 volts AC. All equipment is to be connected to conditioned / protected clean power with uninterrupted cutover to battery and generation.

For the cost estimate, we assumed that the core and distribution hub will be located on existing City land within the Industrial Corridor.

5.4.3 Distribution and Access Network Design

The distribution network is the layer between the hub and the FDCs, which provide the access links to the taps. The distribution network aggregates traffic from the FDCs to the core. Fiber cuts and equipment failures have progressively greater operational impact as they happen closer to the network core, so it is critical to build in redundancies and physical path diversities in the distribution network, and to seamlessly re-route traffic when necessary.

The distribution and access network design proposed in this report is flexible and scalable enough to support two different architectures:

1. Housing both the distribution and access network electronics at the hub, and using only passive devices (optical splitters and patches) at the FDCs; or
2. Housing the distribution network electronics at the hub and pushing the access network electronics further into the network by housing them at the FDCs.

By housing all electronics at the hub, the network will not require power at the FDCs. Choosing a network design that only supports this architecture may reduce costs by allowing smaller, passive FDCs in the field. However, this architecture will limit the redundancy capability from the FDCs to the hub.

By pushing the network electronics further into the field, the network gains added redundancy by allowing the access electronics to connect to two distribution switches. In the event one distribution switch has an outage the subscribers connected to the FDC would still have network access via the other distribution switch. Choosing a network design that only supports this architecture may reduce costs by reducing the size of the hub.

Selecting a design that supports both models would allow the City to accommodate many different service operators and their network designs. This design would also allow service providers to start with a small deployment (i.e., placing electronics only at the hub site) and grow by pushing electronics closer to their subscribers.

5.4.3.1 Access Network Technologies

FDCs can sit on a curb, be mounted on a pole, or reside in a building. Our model recommends installing sufficient FDCs to support higher than anticipated levels of subscriber penetration. This approach will accommodate future subscriber growth with minimal re-engineering. Passive optical splitters are modular and can be added to an existing FDC as required to support subscriber growth, or to accommodate unanticipated changes to the fiber distribution network with potential future technologies.

Our FTTP design also includes the placement of indoor FDCs and splitters to support large-tenant businesses. This would require obtaining the right to access the equipment for repairs and installation in whatever timeframe is required by the service agreements with the customers. Lack of access would potentially limit the ability to perform repairs after normal business hours, which could be problematic for commercial services.

In this model, we assume the use of GPON electronics for most subscribers and Active Ethernet for a small percentage of subscribers (typically large business customers) that request a

premium service or require greater bandwidth. GPON is the most commonly provisioned FTTP service—used, for example, by Verizon (in its FiOS systems), Google Fiber, and Chattanooga EPB.

Furthermore, providers of gigabit services typically provide these services on GPON platforms. Even though the GPON platform is limited to 1.2 Gbps upstream and 2.4 Gbps downstream for the subscribers connected to a single PON, operators have found that the variations in actual subscriber usage generally means that all subscribers can obtain 1 Gbps on demand (without provisioned rate-limiting), even if the capacity is aggregated at the PON. Furthermore, many GPON manufacturers have a development roadmap to 10 Gbps and faster speeds as user demand increases.

GPON supports high-speed broadband data, and is easily leveraged by triple-play carriers for voice, video, and data services. The GPON OLT uses single-fiber (bi-directional) SFP modules to support multiple (most commonly less than 32) subscribers.

GPON uses passive optical splitting, which is performed inside FDC, to connect fiber from the OLTs to the customer premises. The FDCs house multiple optical splitters, each of which splits the fiber link to the OLT between 16 to 32 customers (in the case of GPON service).

AE provides a symmetrical (up/down) service that is commonly referred to as Symmetrical Gigabit Ethernet. AE can be provisioned to run at sub-gigabit speeds, and like GPON easily supports legacy voice, voice over IP, and video. AE is typically deployed for customers who require specific service level agreements that are easier to manage and maintain on a dedicated service.

For subscribers receiving Active Ethernet service, a single dedicated fiber goes directly to the subscriber premises with no splitting. Because AE requires dedicated fiber (home run) from the OLT to the CPE, and because each subscriber uses a dedicated SFP on the OLT, there is significant cost differential in provisioning an AE subscriber versus a GPON subscriber.

Our fiber plant is designed to provide Active Ethernet service or PON service to all passings. The network operator selects electronics based on the mix of services it plans to offer and can modify or upgrade electronics to change the mix of services.

5.4.3.2 Expanding the Access Network Bandwidth

GPON is currently the most commonly provisioned FTTP technology, due to inherent economies when compared with technologies delivered over home-run fiber²³ such as Active Ethernet. The cost differential between constructing an entire network using GPON and Active Ethernet is 40

²³ Home run fiber is a fiber optic architecture where individual fiber strands are extended from the distribution sites to the premises. Home run fiber does not use any intermediary aggregation points in the field.

percent to 50 percent.²⁴ GPON is used to provide services up to 1 Gbps per subscriber and is part of an evolution path to higher-speed technologies that use higher-speed optics and wave-division multiplexing.

This model provides many options for scaling capacity, which can be done separately or in parallel:

1. Reducing the number of premises in a PON segment by modifying the splitter assignment and adding optics. For example, by reducing the split from 16:1 to 4:1, the per-user capacity in the access portion of the network is quadrupled.
2. Adding higher speed PON protocols can be accomplished by adding electronics at the FDC or hub locations. Since these use different frequencies than the GPON electronics, none of the other CPE would need to be replaced.
3. Adding WDM-PON electronics as they become widely available. This will enable each user to have the same capacity as an entire PON. Again, these use different frequencies than GPON and are not expected to require replacement of legacy CPE equipment.
4. Option 1 could be taken to the maximum, and PON replaced by a 1:1 connection to electronics—an Active Ethernet configuration.

These upgrades would all require complementary upgrades in the backbone and distribution Ethernet electronics, as well as in the upstream Internet connections and peering—but they would not require increased fiber construction.

5.4.3.3 Customer Premises Equipment (CPE) and Subscriber Services

In the final segment of the FTTP network, fiber runs from the FDC to customers' buildings, where it terminates at the subscriber tap—a fiber optic housing located in the ROW closest to the premises. The service installer uses a pre-connectorized drop cable to connect the tap to the subscriber premises without the need for fiber optic splicing.

The drop cable extends from the subscriber tap (in a handhole underground) to the building, enters the building, and connects to CPEs.

²⁴ "Enhanced Communications in San Francisco: Phase II Feasibility Study," CTC report, October 2009, at p. 205.

6 Cost Estimate – Industrial Technology & Innovation Corridor

The City recognizes the importance of deploying a robust, scalable FTTP network infrastructure that can support a wide range of applications and services. At the City’s request, CTC prepared a high-level network design and cost estimate for deploying a gigabit FTTP network in the City’s Industrial Corridor. The FTTP network will promote economic development in the Industrial Corridor where businesses traditionally have limited options for telecommunication services.

The CTC cost estimate provides data relevant to assessing the financial viability of network deployment, and to developing a business model for a potential City construction effort (including the full range of models for public–private partnerships). This estimate will also enable financial modeling to determine the approximate revenue levels necessary for the City to service any debt incurred in building the network.

The CTC design and cost estimate are underpinned by data and insight gathered by CTC engineers through several related steps, including discussions with City stakeholders and an extensive field and desk survey of candidate fiber routes.

The descriptions in this document are highly technical and make use of acronyms. We have included a glossary as Appendix A.

6.1 FTTP Cost Estimate Summary

Based on these inputs and other guidance from the City, we developed a conceptual, high-level FTTP design that reflects the City’s goals and is open to a variety of architecture options. From this design, we present two cost examples.

The first is the cost to deploy FTTP infrastructure, all electronics, service drops to the consumer, and CPEs. This estimate shows the total capital costs—which would be incurred by the City, or the City and its partner(s)—to build an FTTP network to support a ubiquitous 1 Gbps data-only service. This is the capital cost the City would incur if it pursued a wholesale or retail model.

The second cost estimate example is the cost to deploy *only* the FTTP OSP infrastructure—consistent with the dark FTTP model, as described in Section 1.5.1. This is the total capital cost for the City to build a dark FTTP network for lease to a private partner.

6.1.1 FTTP Cost Estimate (Fiber and Electronics) – Wholesale and Retail Models

This Industrial Corridor FTTP network deployment will cost approximately \$8.5 million, inclusive of OSP construction labor, materials, engineering, permitting, network electronics, drop installation, CPEs, and testing.²⁵

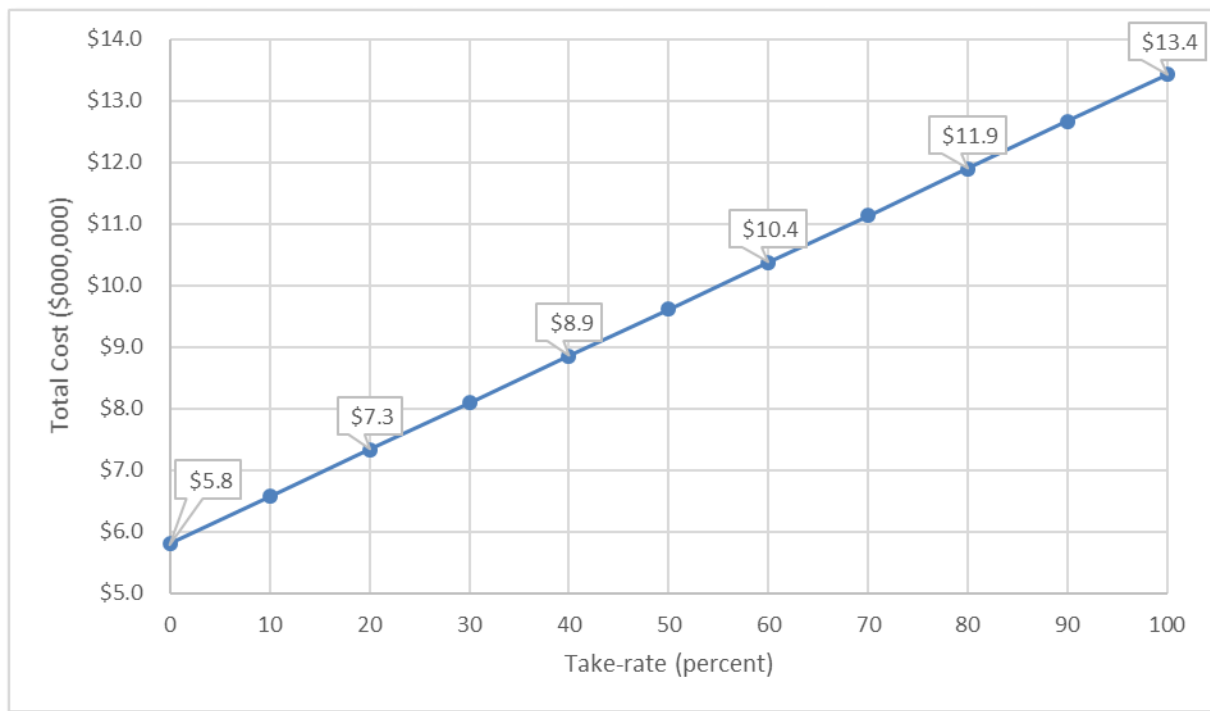
²⁵ The estimated total cost breakdown assumes a percentage of businesses that subscribe to the service, otherwise known as the penetration rate or the “take rate,” of 35 percent.

Table 6: Breakdown of Estimated Total Cost

Cost Component	Total Estimated Cost
OSP	\$5.2 million
Central Network Electronics	0.6 million
FTTP Service Drop and Lateral Installations	2.1 million
CPE	0.6 million
Total Estimated Cost:	\$8.5 million

Figure 7 shows the change in total estimated cost by varying the expected take rate.

Figure 7: Total Estimated Cost versus Take Rate



The cost is roughly linear by take rate as the per-subscriber cost of adding additional subscribers is constant.

Actual costs may vary due to unknown factors, including: 1) costs of private easements, 2) congestion in the public ROW, 3) variations in labor and material costs, 4) subsurface hard rock, and 5) the City’s operational and business model (including the percentage of businesses who subscribe to the service, otherwise known as the penetration rate or the “take rate”). We have incorporated suitable assumptions to address these items based on our experiences in similar markets.

The total estimated technical operating costs for this model are outlined in Section 6.5 (not including non-technical operating costs such as marketing, legal services, and financing costs). The total cost of operations will vary with the business model chosen and the level of existing resources that can be leveraged by the City and any potential business partners.

6.1.2 FTTP Only Cost Estimate (No Electronics, Drops, or CPEs) – Dark FTTP Model

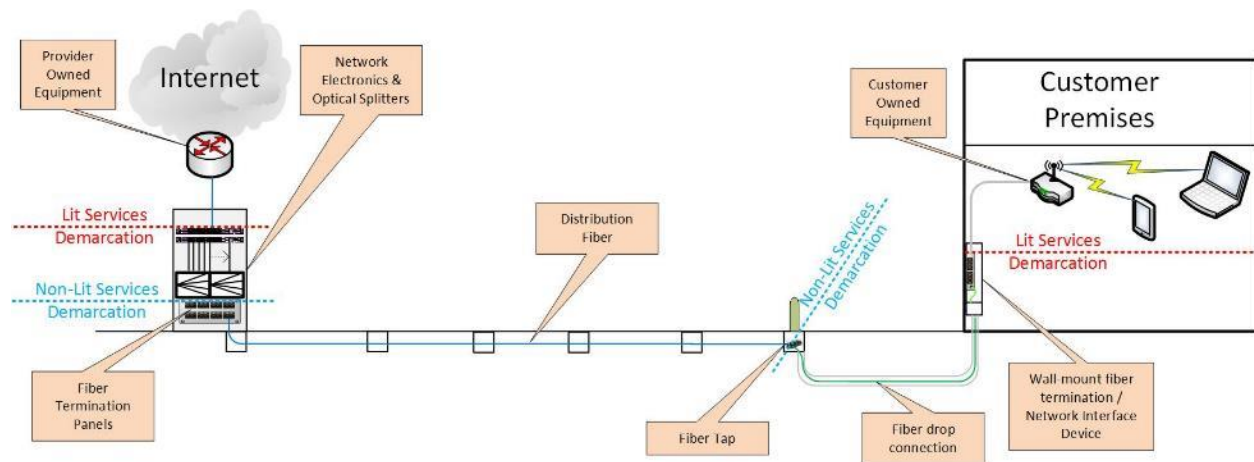
This Industrial Corridor dark FTTP network deployment will cost more than \$5.4 million, inclusive of OSP construction labor, materials, engineering, and permitting. This estimate does not include any electronics, subscriber equipment, or drops.

Table 7: Breakdown of Estimated Dark FTTP Model Cost

Cost Component	Total Estimated Cost
OSP Engineering	\$0.5 million
Quality Control/Quality Assurance	0.2 million
General OSP Construction Cost	3.2 million
Special Crossings	0.7 million
Backbone and Distribution Plant Splicing	0.1 million
Backbone Hub, Termination, and Testing	0.5 million
FTTP Lateral Installations	0.2 million
Total Estimated Cost:	\$5.4 million

This estimate assumes that the City constructs and owns the FTTP infrastructure up to a demarcation point at the optical tap near each business, and leases the dark fiber backbone and distribution fiber to a private partner. The private partner would be responsible for all network electronics, fiber drops to subscribers, and CPEs—as well as network sales, marketing, and operations.

Figure 8: Demarcation Between City and Partner Network Elements



6.2 Cost Estimate Breakdown

The cost components for OSP construction include the following tasks:

- **Engineering** – includes system level architecture planning, preliminary designs and field walk-outs to determine candidate fiber routing; development of detailed engineering prints and preparation of permit applications; and post-construction “as-built” revisions to engineering design materials.
- **Quality Control / Quality Assurance** – includes expert quality assurance field review of final construction for acceptance.
- **General Outside Plant Construction** – consists of all labor and materials related to “typical” underground outside plant construction, including conduit placement, fiber installation, and surface restoration; includes all work area protection and traffic control measures inherent to all roadway construction activities.
- **Special Crossings** – consists of specialized engineering, permitting, and incremental construction (material and labor) costs associated with crossings of railroads, bridges, and interstate / controlled access highways.
- **Backbone and Distribution Plant Splicing** – includes all labor related to fiber splicing of outdoor fiber optic cables.
- **Backbone Hub, Termination, and Testing** – consists of the material and labor costs of placing hub shelters and enclosures, terminating backbone fiber cables within the hubs, and testing backbone cables.

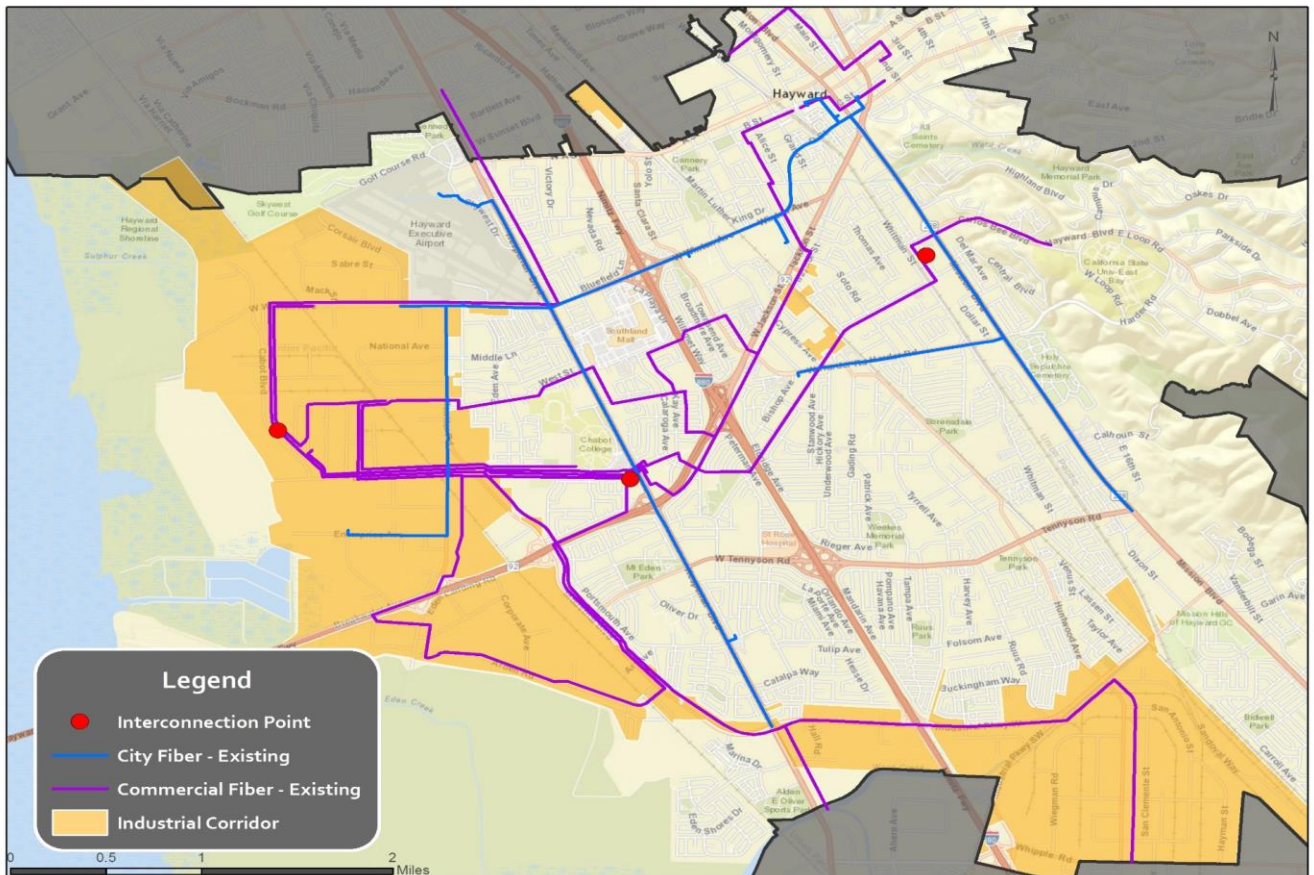
- **FTTP Service Drop and Lateral Installations** – consists of all costs related to fiber service drop installation, including outside plant construction on private property, building penetration, and inside plant construction to a typical backbone network service “demarcation” point; this also includes all materials and labor related to the termination of fiber cables at the demarcation point. A take-rate of 35 percent was assumed for standard fiber service drops.

6.2.1 Existing City Network Infrastructure Decreases FTTP Construction Costs

The cost estimate assumes the use of the City’s conduit and fiber optic network to provide fiber optic connectivity along most the route between the Industrial Corridor and Internet POPs for network connectivity.

The use of the City’s conduit and fiber optic resources as a backbone could reduce the cost and complexity of deploying an FTTP network because the network can reduce the amount of construction needed to provide backbone connectivity in the City (Figure 9).

Figure 9: Map Showing Existing Conduit and Fiber Resources



A detailed engineering design will determine the exact level of savings that the conduit and fiber resources can provide to the Industrial Corridor FOTP network, but we estimate the savings to be between \$500,000 and \$1 million.

6.3 Field Survey Methodology for Network Design and Cost Estimate

A CTC OSP engineer performed a preliminary survey of the Industrial Corridor via Google Earth Street View to develop estimates of per-mile cost for underground construction in the existing ROW. A CTC engineer then conducted a brief onsite field study of the City’s existing conduit and the Industrial Corridor to determine the costs with underground construction in the area. The engineer reviewed available green space, ROW widths, building setbacks, and existing underground utility placements—all of which have been factored in to our design and cost estimate.

The ROW in the Industrial Corridor tends to be wide and many of the areas have additional ROW under sidewalks where existing utilities are not located. Some areas are served by aerial utilities while most the service drops and other areas of the Industrial Corridor have all

underground utilities. Given the width of the ROW we do not anticipate any issues with constructing City fiber optics in the ROW.

One obstacle for construction is the rail lines that crisscross the Industrial Corridor. Railroad crossings require permitting and special construction, which can increase the costs and time required to construct fiber optics. The owner of the rail bed must provide a permit or easement to cross the tracks, which is typically a straightforward process with the larger railroads such as Union Pacific. Crossings may be more difficult if someone else owns the rail bed, and/or it is abandoned.

The review of the existing conduit showed that the conduit and fiber optic system appeared to be in good shape. The older of the existing conduit system was designed to support traffic systems using either twisted copper pair or small count fiber optic cables. Traffic conduit tends to have closer handholes (every 250 feet) than fiber optic telecommunications conduit (every 500+ feet). We also noted that the handholes in the older conduit are smaller than what would be recommended today for a fiber optic network. Higher-count fiber optic cables require larger handholes to properly store slack cable and house the fiber optic splice enclosures. If higher fiber optic cable counts were needed in the future, approximately every other handhole would need to be replaced to accommodate the cable. It is important to note that even with potentially having to replace handholes, the fiber optic and conduit system provide tremendous value to the City.

6.4 FTTP Cost Estimate

This section provides a summary of cost estimates for construction of the FTTP network to all businesses in the Industrial Corridor. With the wholesale and retail models, assuming a 35 percent take rate, this deployment will cost approximately \$8.5 million—inclusive of OSP construction labor, materials, engineering, permitting, network electronics, drop installation, CPEs, and testing. Table 8 shows the breakdown of estimated total costs for each network component.

Table 8: Breakdown of Estimated Total Capital Cost – Retail and Wholesale Model

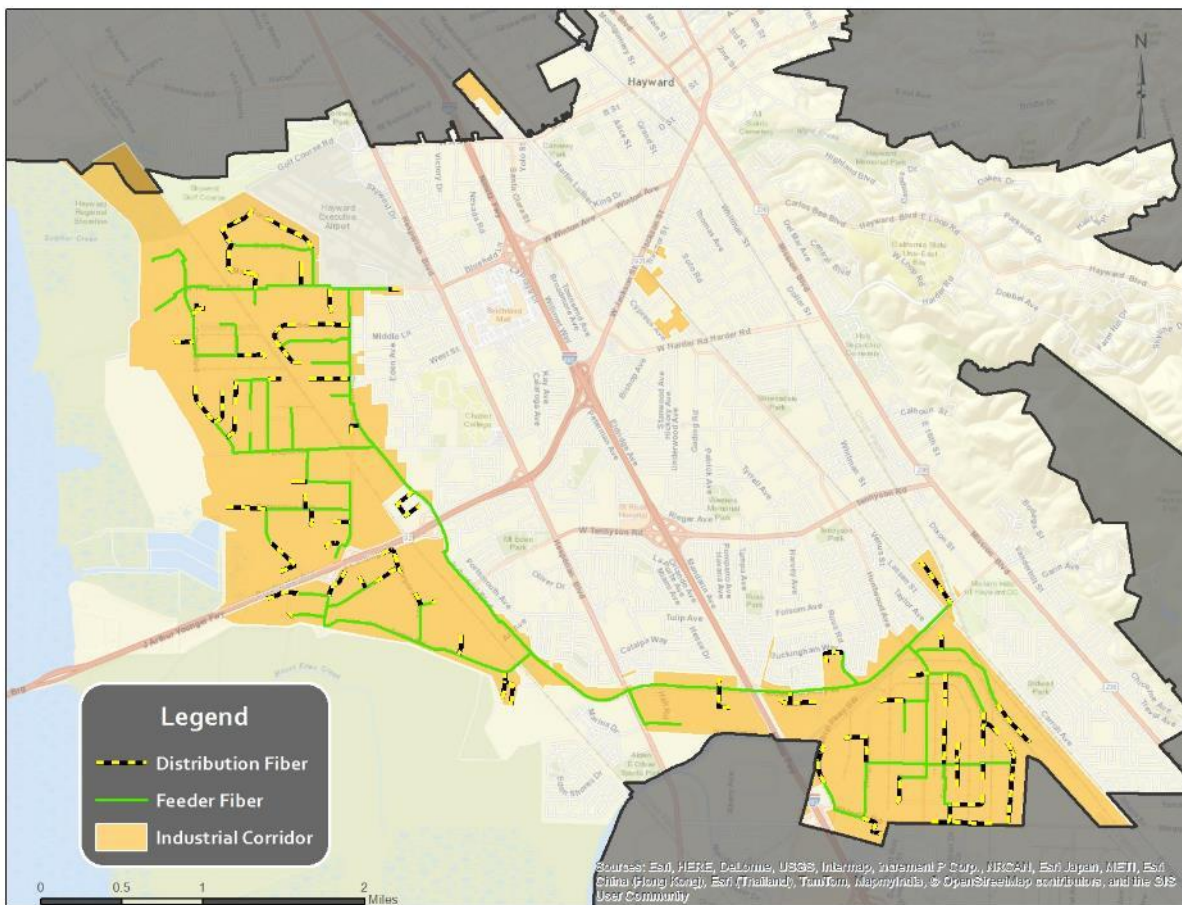
Cost Component	Total Estimated Cost
OSP	\$5.2 million
Central Network Electronics	0.6 million
FTTP Service Drop and Lateral Installations	2.1 million
CPE	0.6 million
Total Estimated Cost:	\$8.5 million

6.4.1 OSP Cost Estimation Methodology

As with any utility, the design and associated costs for construction vary with the unique physical layout of the service area—no two streets are likely to have the exact same configuration of fiber optic cables, communications conduit, and underground vaults. Costs are further varied by soil conditions, such as the prevalence of subsurface hard rock; location and number of existing utilities; and crossings of bridges, railways, and highways.

To estimate costs for the Industrial Corridor network, we developed a high level FTTP sample design based on street mileage and passings. Since much of the Industrial Corridor has underground utilities, we assumed that the entire FTTP network would be constructed underground.

Figure 10: High-Level FTTP Sample Design Overview



The assumptions, sample design, and cost estimates were used to estimate a cost per passing for the OSP. This number was then multiplied by the number of businesses based on the City’s GIS data. The actual cost to construct FTTP to every premises in the Industrial Corridor could

differ from the estimate due to changes in the assumptions underlying the model. Further and more extensive analysis would be required to develop a more accurate cost estimate.

6.4.2 OSP

6.4.2.1 Cost to Construct the Network

In terms of OSP, the estimated cost to construct the proposed FTTP network is approximately \$5.2 million, or \$2,030 per passing.²⁶ As we discussed above, our model assumes all underground fiber construction. Table 9 provides a breakdown of the estimated OSP costs. (Note, the costs have been rounded.)

Table 9: Estimated OSP Costs for FTTP

Area	Distribution Plant Mileage	Total Cost	Passings	Cost per Passing	Cost Per Plant Mile
Corridor	33.9	\$5,200,000	2,560	\$2,030	\$150,000

We estimated costs for underground placement using available unit cost data for materials and estimates on the labor costs for placing, pulling, and boring fiber based on construction in comparable markets.

Material costs were generally known, aside from unknown economies of scale and inflation rates, and barring any sort of phenomenon restricting material availability and costs. The labor costs associated with the placement of fiber were estimated based on similar construction projects.

While generally allowing for greater control over timelines and more predictable costs, underground construction is subject to uncertainty related to congestion of utilities in the public rights-of-way and the prevalence of subsurface hard rock—neither of which can be fully mitigated without physical excavation and/or testing. While anomalies and unique challenges will arise regardless of the design or construction methodology, the relatively large scale of this project is likely to provide ample opportunity for variations in construction difficulty to yield relatively predictable results on average.

We assume underground construction will consist primarily of horizontal, directional drilling to minimize ROW impact and to provide greater flexibility to navigate around other utilities. The design model assumes a single two-inch, High-Density Polyethylene (HDPE) flexible conduit

²⁶ The passing count includes individual single-unit buildings and units in small multi-business buildings as single passings. It treats larger multi-tenant businesses as single passings.

over underground distribution paths, and dual two-inch conduits over underground backbone paths to provide scalability for future network growth.

6.4.3 Central Network Electronics

Central network electronics will cost an estimated \$580,000, or \$225 per passing, based on an assumed take rate of 35 percent.²⁷ (These costs may increase or decrease depending on take rate, and the costs may be phased in as subscribers are added to the network.) The central network electronics consists of the electronics to connect subscribers to the FTTP network at the core, hub, and cabinets. Table 10 below lists the estimated costs for each segment.

Table 10: Estimated Central Network Electronics Costs

Network Segment	Subtotal	Passings	Cost per Passing
Core and Distribution Electronics	\$360,000	2,560	\$140
FTTP Access Electronics	220,000	2,560	85
Central Network Electronics Total	\$580,000	2,560	\$225

6.4.3.1 Core Electronics

The core electronics connect the FTTP network to the Internet. The core electronics consist of high performance routers, which handle all the routing on both the FTTP network and to the Internet. The core routers should have modular chassis to provide high availability in terms of redundant components and “hot swappable”²⁸ modular line cards in the event of an outage. Modular routers also provide the ability to expand the routers as demand for additional bandwidth increases.

The cost estimate design envisions redundant rings between the core sites running networking protocols such as hot standby routing protocol (HSRP) to ensure redundancy in the event of a core failure. Additional rings can be added as bandwidth on the network increases. The core sites would also tie to the distribution electronics 10 Gbps links. The links to the hubs can also be increased with additional 10 Gbps and 40 Gbps line cards and optics as demand grows on the network. The core routers will also have 10 Gbps links to ISPs that connect the FTTP network to the Internet.

The cost of the core routing equipment is \$260,000. These costs do not include the service provider’s OSS—such as provisioning platforms, fault and performance management systems,

²⁷ The take rate affects the electronics and drop costs, but also may affect other parts of the network, as the city may make different design choices based on the expected take rate. A 35 percent take rate is typical of environments where a new provider joins the telephone and cable provider in a city.

²⁸ Hot swappable means that the line cards or modular can be removed and reinserted without the entire device being powered down or rebooted. The control cards in the router should maintain all configurations and push them to a replaced line card without the need for reconfirmation.

remote access, and other OSS for FTTP operations. The service providers and/or their content providers may already have these systems in place.

6.4.3.2 Distribution Electronics

The distribution network electronics aggregate the traffic from the FDCs and send it to the core to access the Internet. The distribution electronics consist of high performance aggregation switches, which consolidate the traffic from the many access electronics and send it to the core for route processing. The distribution switches typically are modular switch chassis that can accommodate many line cards for aggregation. The switches should also be modular to provide redundancy in the same manner as the core switches.

The cost estimate assumes that the aggregation switches connect to the access network electronics with 10 Gbps links to each distribution switch. The aggregation switches would then connect to the core switches over single or multiple 10 Gbps links as needed to meet the demand of the FTTP users in each service area.

The cost of the distribution switching equipment is \$100,000. These costs do not include any of the service provider's OSS or other management equipment.

6.4.3.3 Access Electronics

The access network electronics at the FDCs connect the subscribers' CPEs to the FTTP network. We recommend deploying access network electronics that can support both GPON and Active Ethernet subscribers to provide flexibility within the FDC service area. We also recommend deploying modular access network electronics for reliability and the ability to add line cards as more subscribers join in the service area. Modularity also helps reduce initial capital costs while the network is under construction or during the roll out of the network.

The cost of the access network electronics for the network is \$220,000. These costs are based on a take rate of 35 percent and include optical splitters at the FDCs for that take rate.

6.4.4 Customer Premises Equipment (CPE) and Service Drop Installation (Per-subscriber Costs)

CPEs are the subscriber's interface to the FTTP network. For this cost estimate, we selected CPEs that provide only Ethernet data services (however, there are a wide variety of CPEs offering other data, voice, and video services). Using the estimated take rate of 35 percent, we estimated the CPE for business customers will be \$630,000.

Each activated subscriber would also require a fiber drop installation, and related electronics, which would cost roughly \$2,860 per subscriber, or \$2.7 million total (assuming a 35 percent take rate).

The drop installation cost is the biggest variable in the total cost of adding a subscriber. A short aerial drop can cost as little as \$250 to install, whereas a long underground drop installation can cost upward of \$3,000. (We estimate an average of \$2,160 per drop installation within the Industrial Corridor.)

The other per-subscriber expenses include the cost of the optical network terminal (ONT) at the premises, a portion of the optical line termination (OLT) costs at the hub, the labor to install and configure the electronics, and the incidental materials needed to perform the installation. The numbers provided in the table below are averages and will vary depending on the type of premises and the internal wiring available at each premises.

Table 11: Per-subscriber Cost Estimates

Construction and Electronics Required to Activate a Subscriber	Estimated Average Cost
Drop Installation and Materials	\$2,160
Subscriber Electronics (ONT and OLT)	400
Electronics Installation	200
Installation Materials	100
Total	\$2,860

6.5 Operating Cost Considerations

This section outlines some of the key technical operating expenditures the Industrial Corridor FTTP network would incur. Costs for FTTP network technical operations include staffing (technicians, program manager), OSP maintenance, electronics maintenance, and customer support.

The costs discussed in this section are not meant to be inclusive of all operating costs such as marketing, legal, and financial costs. Further, the magnitude of total cost of operations will vary with the business model chosen, balance of added new staff versus using contractors, the level of existing resources that can be leveraged by the City, and any potential business partners. Staffing requirements and operation costs will vary based on the selected business model. We provide additional staffing and operational cost details in Section 7.

6.5.1 Technical Operational Expenditures

If the City chooses to offer a retail data service, we estimate that the City would likely initially purchase 2 Gbps of Internet capacity. This is an estimated number for the beginning of the

network deployment and can be expected to grow as video streaming and other cloud applications grow in importance. Depending upon the contract terms Internet bandwidth we would estimate costs in the \$0.75 per Mbps per month to \$1.50 per Mbps per month range in Hayward. We recommend that the Internet access be purchased from multiple Internet providers and be load balanced to ensure continuity during an outage.

The operating costs also include maintenance contracts on the core network electronics. These contracts ensure that the City has access to software support and replacement of critical network electronics that would be cost-prohibitive to store as spares. Where cost effective such as the distribution aggregation switches and the FTTP electronics, we recommend storing spares to reduce the total costs of maintenance contracts. We estimate hardware maintenance contracts and sparing at 15 percent of the total electronics cost.

In addition, we recommend planning for an annual payment into a depreciation operating reserve account based on the equipment replacement cost to help limit risk. This reserve fund should never go negative; the balance that accrues in this account will fund the capital needs for ongoing capital replenishments.

6.5.1.1 Fiber Maintenance Costs

The City would need to augment its current fiber staff or contractors with the necessary expertise and equipment available to maintain the fiber optic cable in an Industrial Corridor FTTP network. Typical maintenance costs can exceed 1 percent of the total fiber OSP construction cost per year and includes a mix of contracted services.

Fiber optic cable is resilient compared to copper telephone lines and cable TV coaxial cable. The fiber itself does not corrode, and fiber cable installed over 20 years ago is still in good condition. However, fiber can be vulnerable to accidental cuts by other construction, traffic accidents, and severe weather. In other networks of this size, we have seen approximately 80 outages per 1,000 miles of plant per year.

The fiber optic redundancy from the hubs to the FDCs in the backbone network will facilitate restoring network outages while repair of the fiber optic plant is taking place.

Depending on the operational and business models established between the City and service providers, the City may be responsible for adds, moves, and changes associated with the network as well as standard plant maintenance. These items may include:

- Adding and/or changing patching and optical splitter configurations at FDCs and hubs;
- Extending optical taps and laterals to new buildings or developments;
- Extending access to the FTTP network to other service providers; and

- Relocating fiber paths due to changes such as the widening of roadways.

The City would need to obtain contracts with fiber optic contractors that have the necessary expertise and equipment available to maintain an Industrial Corridor FTTP network. These contracts should specify the service level agreements the City needs from the fiber optic contractors to ensure that the City can meet the service level agreements it has with the network service providers. The City should also ensure that it has access to multiple fiber optic contractors if one contractor is unable to meet the City's needs. The fiber optic contractors should be available 24x7 and have a process in place for activating emergency service requests.

6.5.1.2 Fiber Locating

The City will be responsible for locating and marking all underground conduit for excavation projects per California's DigAlert System statutes. Locating involves receiving and reviewing excavation tickets to determine whether the area of excavation may impact the City's underground FTTP infrastructure. If the system is impacted, the City must mark its utilities in the manner and within the allotted timeframe provided by the statute.

Locating is either done in-house or by contractors who specialize in utility locating. The City may be able to leverage its existing utility locating personnel, processes, or contractors to reduce the cost of utility locating for the FTTP network.

6.5.2 Technical Staffing Requirements

Additional staffing will be required to perform the maintenance and operation responsibilities of an Industrial Corridor FTTP network. The staffing levels and the responsibility for that staffing will vary greatly with the various potential business models. The following sections outline the technical groups that will be required to maintain and operate the network.

6.5.2.1 Outside Plant

The OSP group will be responsible for the maintenance, operations, and expansion of the City's telecommunications infrastructure including conduit, fiber, and splice enclosures. During construction, the OSP group will be responsible for tracking and overseeing the construction of new infrastructure. Once the network is constructed, the OSP group will oversee any future adds, moves, or changes to the network.

The OSP group may use contractors to perform activities such as construction, repair, and locating. Management of contractors will be a responsibility of an OSP manager with OSP technicians assisting with project oversight and quality assurance and quality control. The OSP manager will also assist with engineering and design of any adds, moves, and changes that occur on the network.

The OSP group will have responsibility for general field operations. This group will include OSP technicians to perform locates, and contracted support to provide repair services. Tasks will include management of the One Call process, fiber locates, response and troubleshooting of Layer 1 troubleshooting, and fleet management. Additionally, it is critical that while many of OSP jobs may be outsourced, that the OSP group be equipped with the proper locate and testing equipment.

6.5.2.2 Network Engineering

The network engineering group develops and maintains the network architecture, responds to high-level troubleshooting requests, manages network electronics and makes sure the network delivers to the end user a reliable service.

The network engineering group is responsible for making architecture decisions that will determine how the network can deliver services to users. The network engineering group will also be responsible for change management and architectural review to ensure that network continuity is ensured after changes.

The network engineering group will also be responsible for vendor selections when new hardware, technologies, or contractor support is needed to support the network. The network engineering team will perform regular maintenance of the network as well as provision, deploy, test, and accept any electronics to support new sites or services.

Network technicians will be responsible for troubleshooting issues with network electronics and responding to customer complaints.

To operate network electronics (if required by the business model) we estimate a staffing requirement of one network manager, up to one network engineer, and up to two network technicians that could be a combination of personnel as well as contracted support. Network staffing levels may vary depending on the take rate of the FTTP network.

6.5.2.3 Network Operations Center and Customer Service

The network will require individuals to perform monitoring and oversight of the network electronics. The group will be responsible for handling technical calls from users, actively monitoring the health of the network, and escalating issues to the proper operations groups. The group is also required to develop and monitor network performance parameters to ensure that the network is meeting its obligations to its users as defined in the network service level agreements (SLAs).

Often network operations require a 24x7 customer service helpdesk and tools for network monitoring, alerting, and provisioning.

7 Business and Financial Model

This section presents a financial analysis based on the candidate business models we outline in Section 1.5, above. Our modeling is based on an FTTP deployment to the Industrial Corridor, and assumes that the City will take some financial risk by investing at least in dark FTTP infrastructure. The models are briefly summarized again in Table 12, with an emphasis on the division of responsibilities between the City and a partner.

Table 12: Responsibility Matrix for Potential Business Models

Activity	Model		
	Dark FTTP	Wholesale Service	Retail Service
Who invests in and owns the outside plant (OSP), like fiber?	City	City	City
Who invests in and owns the network electronics?	Partner(s)	City	City
Who is responsible for customer service to end users?	Partner(s)	Partner(s)	City

7.1 Overview

Potential business models for an FTTP deployment range from:

- A **retail service model** in which the City directly provides fiber service;
- To a **wholesale service model** in which the City builds an open access network and invites private partners to deliver services over the network;
- To a **dark FTTP model** in which the City builds the fiber and enters a partnership with an anchor service provider, similar to the business model the City of Westminster, Maryland adopted when it partnered with Ting Fiber.²⁹

As we noted in Section 1.5, we believe a dark F model will best fit the City’s needs, because it leverages the City’s abilities and offsets some of the risk associated with implementing a new broadband enterprise, as the City would be required to do in a retail service model.

We conducted financial modeling based on the three potential business models to illustrate the kind of costs and revenues the City might see under each model. This section presents an overview of the FTTP financial model, based on the cost estimates in Section 6. We have provided the City with a complete financial model in Excel format; because the Excel

²⁹ “Westminster Fiber Network,” *City of Westminster*, accessed November 8, 2016, <http://www.westminstermd.gov/419/Westminster-Fiber-Network>.

spreadsheet can be modified to show the impact of changing assumptions, it will be an important tool for the City to use if it negotiates with a private partner.

These financial projections do not include any economic development or other indirect benefits, which are often not easily quantifiable. The projections also do not include potential revenues from small cell or distributed antenna system (DAS) providers, which may represent a modest revenue source the City can tap into if it can find interested providers.

7.2 Retail Model Financial Projections

The financial analysis in this section assumes the City of Hayward owns and operates the FTTP infrastructure and provides retail service to businesses in the identified service area. As we described above, the City will be the service provider in a retail service model and will be responsible for all aspects of network deployment and maintenance, network and customer electronics, service delivery, and customer service and support. This financial analysis is based on several assumptions, outlined below.

In the analysis, we assume the City offers four base services, at prices that compare favorably to similar services in other cities:

- A 250 Mbps commercial service at \$100 per month,
- A 1 Gbps small commercial service at \$200 per month,
- A 1 Gbps medium commercial service at \$400 per month (including service-level agreement), and
- A 1 Gbps Metro Ethernet transport service at \$1,000 per month (including service-level agreement).

We assumed that 68 percent of subscribers will purchase the 250 Mbps service; 15 percent will purchase the 1 Gbps small commercial service; 15 percent will purchase the 1 Gbps medium commercial service; and 2 percent will purchase the 1 Gbps Metro Ethernet service.

Given the assumptions outlined in this section, a 60 percent take rate (the percentage of customers that subscribe to the service) is required to maintain a positive cash flow. Note that this analysis does not indicate or review whether obtaining this required take rate is realistic; rather, it reflects the take rate necessary to maintain a positive cash flow, considering all other assumptions in the model. The complete model is provided in Appendix C.

Please note that, based on other competitive overbuilds, obtaining a 60 percent take rate is considered aggressive, and will likely be difficult to obtain and maintain. Realistically, we would expect a 35 percent to 45 percent take rate.

The financial analysis for this base case scenario is as follows:

Table 13: Base Case Retail Model Financial Analysis with 60 Percent Take Rate

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$341,000	\$3,280,000	\$3,280,000	\$3,280,000	\$3,280,000
Total Cash Expenses	(911,000)	(1,419,000)	(1,419,000)	(1,419,000)	(1,419,000)
Depreciation	(234,000)	(1,254,000)	(625,000)	(617,000)	(617,000)
Interest Expense	(185,000)	(617,000)	(485,000)	(321,000)	(111,000)
Taxes	=	=	=	=	=
Net Income	\$(989,000)	\$(10,000)	\$751,000	\$923,000	\$1,133,000

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$(50,000)	\$491,000	\$2,770,000	\$5,548,000	\$8,319,000
Depreciation Reserve	-	1,132,000	1,150,000	354,000	(138,000)
Interest Reserve	185,000	-	-	-	-
Debt Service Reserve	<u>185,000</u>	<u>660,000</u>	<u>660,000</u>	<u>660,000</u>	<u>660,000</u>
Total Cash Balance	\$320,000	\$2,283,000	\$4,580,000	\$6,562,000	\$8,841,000

The income statement demonstrates an overall health of the enterprise on a year-by-year basis. The above cash flow statement shows the cumulative cash balance of the enterprise. It shows unrestricted and restricted (depreciation, interest, and debt service reserves) cumulative cash balances. The cash flow statement is the most important measure for a public entity. It is important for the enterprise to maintain a positive unrestricted cash balance at the end of each year.

Please note that we used a “flat model” in the analysis. With a “flat model,” inflation and salary cost increases are not used in the analysis because it is assumed that operating cost increases will be offset and passed on to subscribers in the form of increased prices. Models that add an inflation factor to both revenues and expenses can greatly overstate net revenues in the out-years since net revenues would then also increase by the same inflation factor.

7.2.1 Financing Costs and Operating Expenses

This financial analysis assumes a combination of bonds and loans will be necessary to deploy the FTTP network. We expect that the City will seek 20-year bonds with principal repayments starting the year after the bond issuance.

We project that the bond issuance costs will be equal to 1.0 percent of the principal borrowed. For the bond, a debt service reserve account is maintained at 5.0 percent of the total issuance amount. An interest reserve account equal to years one and two interest expense is maintained for the first two years.

Our analysis estimates total bonding requirements to be \$13.2 million, and we assume that bonds are issued at a 5 percent interest rate.

The model assumes a straight-line depreciation of assets, and that the OSP and materials will have a 20-year life span while network equipment will need to be replaced after 10 years. Last mile fiber and CPEs, as well as other miscellaneous implementation costs, will need to be accounted for after five years. Network equipment will be replaced or upgraded at 80 percent of its original cost, miscellaneous implementation costs will be at 100 percent, and last mile and CPEs will be at 100 percent. The model plans for a depreciation reserve account starting in year three—these monies are set aside to fund future electronics replacements and upgrades.

Table 14 shows operating expenses for years one, five, 10, 15, and 20. As the table indicates, some expenses will remain constant while others will increase as the network matures and the customer base increases.

Table 14: Operating Expenses in Years 1, 5, 10, 15, and 20 – Retail Model

Operating Expenses	Year 1	Year 5	Year 10	Year 15	Year 20
Support Services	\$52,000	\$28,000	\$28,000	\$28,000	\$28,000
Insurance	25,000	50,000	50,000	50,000	50,000
Utilities	-	-	-	-	-
Office Expenses	6,000	6,000	6,000	6,000	6,000
Facility Lease	-	-	-	-	-
Locates & Ticket Processing	8,000	31,000	31,000	31,000	31,000
Peering	-	-	-	-	-
Contingency	10,000	25,000	25,000	25,000	25,000
Billing Maintenance Contract	10,000	20,000	20,000	20,000	20,000
Fiber & Network Maintenance	16,000	55,000	55,000	55,000	55,000
Vendor Maintenance Contracts	-	83,000	83,000	83,000	83,000
Legal and Lobby Fees	50,000	10,000	10,000	10,000	10,000
Planning	-	-	-	-	-
Consulting	50,000	10,000	10,000	10,000	10,000
Marketing	100,000	50,000	50,000	50,000	50,000
Education and Training	11,000	19,000	19,000	19,000	19,000
Customer Handholding	-	-	-	-	-
Customer Billing (Unit)	-	5,000	5,000	5,000	5,000
Allowance for Bad Debts	3,000	33,000	33,000	33,000	33,000
Churn (acquisition costs)	1,000	15,000	15,000	15,000	15,000
Pole Attachment Expense	-	-	-	-	-
Internet	<u>30,000</u>	<u>41,000</u>	<u>41,000</u>	<u>41,000</u>	<u>41,000</u>
Sub-Total	\$372,000	\$481,000	\$481,000	\$481,000	\$481,000
Labor Expenses	<u>\$539,000</u>	<u>\$938,000</u>	<u>\$938,000</u>	<u>\$938,000</u>	<u>\$938,000</u>
Sub-Total	<u>\$539,000</u>	<u>\$938,000</u>	<u>\$938,000</u>	<u>\$938,000</u>	<u>\$938,000</u>
Total Expenses	<u>\$911,000</u>	<u>\$1,419,000</u>	<u>\$1,419,000</u>	<u>\$1,419,000</u>	<u>\$1,419,000</u>

Table 15 shows the income statement for years one, five, 10, 15, and 20.

Table 15: Income Statement – Retail Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Revenues					
Internet - Business	\$277,000	\$3,280,000	\$3,280,000	\$3,280,000	\$3,280,000
Connection Fee (net)	64,000	-	-	-	-
Per Passing	-	-	-	-	-
Per Customer	-	-	-	-	-
Provider Fee	-	-	-	-	-
Assessments	-	-	-	-	-
Ancillary Revenues	-	-	-	-	-
Total	\$341,000	\$3,280,000	\$3,280,000	\$3,280,000	\$3,280,000
b. Content Fees					
Internet	\$30,000	\$41,000	\$41,000	\$41,000	\$41,000
Total	\$30,000	\$41,000	\$41,000	\$41,000	\$41,000
c. Operating Costs					
Operation Costs	\$342,000	\$440,000	\$440,000	\$440,000	\$440,000
Labor Costs	539,000	938,000	938,000	938,000	938,000
Total	\$881,000	\$1,378,000	\$1,378,000	\$1,378,000	\$1,378,000
d. EBITDA	\$(570,000)	\$1,861,000	\$1,861,000	\$1,861,000	\$1,861,000
e. Depreciation	234,000	1,254,000	625,000	617,000	617,000
f. Operating Income (EBITDA less Depreciation)	\$(804,000)	\$607,000	\$1,236,000	\$1,244,000	\$1,244,000
g. Non-Operating Income					
Interest Income	\$ -	\$4,000	\$5,000	\$3,000	\$1,000
Interest Expense (10 Year Bond)	-	-	-	-	-
Interest Expense (20 Year Bond)	(185,000)	(621,000)	(490,000)	(324,000)	(112,000)
Interest Expense (Loan)	-	-	-	-	-
Total	\$(185,000)	\$(485,000)	\$(485,000)	\$(321,000)	\$(111,000)
h. Net Income (before taxes)	\$(989,000)	\$(10,000)	\$751,000	\$923,000	\$1,133,000
i. Facility Taxes	\$ -	\$ -	\$ -	\$ -	\$ -
j. Net Income	\$(989,000)	\$(10,000)	\$751,000	\$923,000	\$1,133,000

Table 16: Cash Flow Statement – Retail Model

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Net Income	\$(989,000)	\$(10,000)	\$751,000	\$923,000	\$ 1,133,000
b. Cash Outflows					
Debt Service Reserve	\$(185,000)	\$ -	\$ -	\$ -	\$ -
Interest Reserve	(370,000)	-	-	-	-
Depreciation Reserve	-	(439,000)	(219,000)	(216,000)	(216,000)
Financing	(37,000)	-	-	-	-
Capital Expenditures	<u>(2,588,000)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ (3,180,000)	\$ (439,000)	\$ (219,000)	\$ (216,000)	\$ (216,000)
c. Cash Inflows					
Interest Reserve	\$ 185,000	\$ 95,000	\$ -	\$ -	\$ -
Depreciation Reserve	-	-	-	-	-
Investment Capital	-	-	-	-	-
Start Up Funds	-	-	-	-	-
Grants (infrastructure)	-	-	-	-	-
Grants (customer premises)	-	-	-	-	-
10-Year Bond/Loan Proceeds	-	-	-	-	-
20-Year Bond Proceeds	3,700,000	-	-	-	-
Loan Proceeds	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ 3,885,000	\$ 95,000	\$ -	\$ -	\$ -
d. Total Cash Outflows and Inflows	\$ 705,000	\$ (344,000)	\$ (219,000)	\$ (216,000)	\$ (216,000)
e. Non-Cash Expenses - Depreciation	\$ 234,000	\$ 1,254,000	\$ 625,000	\$ 617,000	\$ 617,000
f. Adjustments					
Proceeds from Additional Cash Flows (10 Year Bond)	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (20 Year Bond)	\$(3,700,000)	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (Loan)	\$ -	\$ -	\$ -	\$ -	\$ -
g. Adjusted Available Net Revenue	\$ (3,750,000)	\$ 900,000	\$ 1,157,000	\$ 1,324,000	\$ 1,534,000
h. Principal Payments on Debt					
10 Year Bond Principal	\$ -	\$ -	\$ -	\$ -	\$ -
20 Year Bond Principal	-	472,000	602,000	768,000	981,000
Loan Principal	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ -	\$ 472,000	\$ 602,000	\$ 768,000	\$ 981,000

Significant network expenses—known as “capital additions”—are incurred in the first few years during the construction phase of the network. These represent the equipment and labor expenses associated with building, implementing, and lighting a fiber network. Table 17 shows the capital additions costs in years one, two, and three, and the total for years one through three.

This analysis projects that the capital additions in year one will total approximately \$2.6 million. These costs will total approximately \$3.5 million in year two, \$1.8 million in year three, and \$2.6 million in year four. This totals just over \$10.5 million for total capital additions costs for years one through four.

Table 17: Capital Additions – Retail Model

Capital Additions	Year 1	Year 2	Year 3	Year 4
Network Equipment				
Core Network Equipment	\$380,000	\$ -	\$ -	\$ -
TBD	-	-	-	-
Additional Annual Capital	-	-	-	-
Total	\$ 380,000	\$ -	\$ -	\$ -
Outside Plant and Facilities				
Total Backbone and FTTP	\$1,635,000	\$2,726,000	\$1,090,000	\$ -
Additional Annual Capital	-	-	-	-
Total	\$1,635,000	\$2,726,000	\$1,090,000	\$ -
Last Mile and Customer Premises Equipment				
CPE (residential and small commercial)	\$91,000	\$182,000	\$182,000	\$638,000
CPE (medium commercial)	18,000	36,000	35,000	124,000
CPE (enterprise)	6,000	10,000	10,000	36,000
Average Drop Cost	263,000	525,000	523,000	1,836,000
Additional Annual Replacement Capital	-	-	-	-
Total	\$378,000	\$753,000	\$750,000	\$2,634,000
Miscellaneous Implementation Costs				
Splicing	\$ -	\$ -	\$ -	\$ -
Vehicles	50,000	-	-	-
Emergency Restoration Kit	50,000	-	-	-
Work Station, Computers, and Software	10,000	7,000	-	2,000
Fiber OTDR and Other Tools	85,000	-	-	-
Generators & UPS	-	-	-	-
OSS	-	-	-	-
Additional Annual Capital	-	-	-	-
Total	\$195,000	\$7,000	\$ -	\$2,000
Replacement Costs for Depreciation				
Network Equipment	\$ -	\$ -	\$ -	\$ -
Customer Premises Equipment	-	-	-	-
Miscellaneous Implementation Costs	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Total Capital Additions	\$2,588,000	\$3,486,000	\$1,840,000	\$2,636,000

7.2.2 Operating and Maintenance Expenses

The cost to deploy an FTTP network goes far beyond fiber implementation. Network deployment requires additional staffing for sales and marketing, network operations, and other functions. The addition of new staff and inventory requirements will require office and warehousing space:

- Expand office facilities for management, technical and clerical staff
- Expand retail “storefront” to facilitate customer contact and enhance their experience doing business with the FTTP enterprise
- Provide warehousing for receipt and storage of cable and hardware for the installation and on-going maintenance of the broadband infrastructure
- Establish location to house servers, switches, routers, and other core-network equipment

Training new and existing staff is important to fully realize the economies of starting the FTTP network. The training will be particularly important in the short-term as the new enterprise establishes itself as a unique entity providing services distinct from services provided by the City today.

The expanded business and increased responsibilities will require the addition of new staff. Marketing and sales are critical. It is important to be proactive in setting customer expectations, addressing security concerns, and educating the customers on how to initiate services.

The initial additional positions, staffing levels, and base salaries are shown in Table 18. Please note that the table only lists estimated salaries and in the analysis, we added a 40 percent overhead to these salaries.

Table 18: Labor Expenses – Retail Model

	Year 1	Year 2	Year 3	Year 4	Year 5+	Labor Cost
New Employees						
Business Manager	0.50	1.00	1.00	1.00	1.00	\$130,000
GIS	0.50	1.00	1.00	1.00	1.00	\$80,000
Communications - Sales	0.50	2.00	2.00	2.00	2.00	\$75,000
Customer Service Representative	2.00	2.00	2.00	2.00	2.00	\$65,000
Service Technicians/Installers & IT Support	1.00	1.00	1.00	2.00	2.00	\$90,000
Fiber Plant O&M Technicians	0.25	1.00	1.00	1.00	1.00	\$90,000
Total New Staff	4.75	8	8	9	9	

7.2.3 Summary of Operating and Maintenance Assumptions

Additional key operating and maintenance assumptions include:

- Salaries and benefits are based on estimated market wages. See Table 18 for a list of staffing requirements for the retail service model. Benefits are estimated at 40 percent of base salary.
- Use of a help desk service, which includes a \$50,000 startup cost and \$1.50 per month per customer service fee.
- Insurance is estimated to be \$25,000 in year one and \$50,000 from year two on.

- Office expense allocations are estimated to be \$6,000 per year.
- Locates and ticket processing are estimated to start in year one at \$8,000, increase to \$15,000 in year two, and increase to \$31,000 from year three on.
- Contingency is estimated to be \$10,000 in year one and \$25,000 from year two on.
- Billing and maintenance contract fees are estimated at \$10,000 in year one, and \$20,000 from year two on.
- Legal fees are estimated to be \$50,000 in year one, and \$10,000 from year two on.
- Consulting fees are estimated at \$50,000 in year one, and \$10,000 from year three on.
- Marketing and promotional expenses are estimated to be \$100,000 in year one, and \$50,000 from year two on.

Vendor maintenance contract fees are expected to start at \$43,000 in year two, increase to \$52,000 in year three, and increase again to \$83,000 in year four; these fees are expected to remain steady at \$83,000 per year beyond year four. Annual variable and operating expenses not including direct Internet access include:

- Education and training are calculated as 2 percent of direct payroll expense.
- Customer billing is estimated to be \$0.25 per bill per month.
- Allowance for bad debts is computed as 1 percent of revenues.
- Churn is anticipated to be 5 percent annually.

Fiber network maintenance costs are calculated at 1 percent of the total construction cost, per year. This is estimated based on a typical rate of occurrence in an urban environment, and the cost of individual repairs. This is in addition to staffing costs to maintain fiber.

Internet and peering is estimated at \$1.25 per Mbps per month for the first 2 Gbps, and \$1.00 per Mbps per month thereafter.

7.2.4 Take-Rate Sensitivity

This section shows the large impact that fluctuations in take rate can have on financial modeling. In the following tables, we show the financial projections for take rates of 50 percent, 40 percent, and 30 percent.

Please note that, based on other competitive overbuilds, obtaining a 60 percent take rate is considered aggressive, and will likely be difficult to obtain and maintain. Realistically, we would expect a 35 percent to 45 percent take rate.

Note that the total unrestricted cash balance in year one with a 50 percent take rate is projected as a loss of \$50,000, as shown in Table 19, below. This number is the same as the projections for a 60 percent take rate (see Table 13, above), but by the time we reach year five, the numbers diverge significantly.

The projected unrestricted cash balance with a 60 percent take rate is projected to be approximately \$491,000 in year five. With a 50 percent take rate, the unrestricted cash balance in year five is projected as a loss of approximately \$451,000.

This is nearly a \$1 million difference in unrestricted cash balances based on the difference between a 60 percent and a 50 percent take rate. As the take rate declines, this gap widens, as the tables below show.

Table 19: Take Rate Reduced to 50 Percent – Retail Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$341,000	\$2,738,000	\$2,738,000	\$2,738,000	\$2,738,000
Total Cash Expenses	(911,000)	(1,390,000)	(1,390,000)	(1,390,000)	(1,390,000)
Depreciation	(234,000)	(1,104,000)	(579,000)	(572,000)	(572,000)
Interest Expense	(185,000)	(577,000)	(453,000)	(297,000)	(98,000)
Taxes	-	-	-	-	-
Net Income	\$ (989,000)	\$ (333,000)	\$316,000	\$479,000	\$678,000

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (50,000)	\$ (451,000)	\$ (220,000)	\$404,000	\$1,023,000
Depreciation Reserve	-	1,026,000	1,082,000	434,000	90,000
Interest Reserve	185,000	-	-	-	-
Debt Service Reserve	185,000	620,000	620,000	620,000	620,000
Total Cash Balance	\$320,000	\$1,195,000	\$1,482,000	\$1,458,000	\$1,733,000

As Table 20 shows, the total projected revenues in year five with a 40 percent take rate are approximately \$2,176,000. The base case analysis with a 60 percent take rate projected year five revenues at approximately \$3,280,000. This is greater than a \$1.1 million difference in projected revenues based on take rate.

Similarly, the unrestricted cash balance in year five for the base case analysis—with a 60 percent take rate—is projected at approximately \$491,000 per year in year five. With a 40 percent take rate (see Table 20, below), the unrestricted cash balance is projected as a loss of approximately \$1.5 million per year in year five.

Table 20: Take Rate Reduced to 40 Percent – Retail Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$341,000	\$2,176,000	\$2,176,000	\$2,176,000	\$2,176,000
Total Cash Expenses	(911,000)	(1,362,000)	(1,362,000)	(1,362,000)	(1,362,000)
Depreciation	(234,000)	(953,000)	(533,000)	(526,000)	(526,000)
Interest Expense	(185,000)	(532,000)	(417,000)	(271,000)	(85,000)
Taxes	-	-	-	-	-
Net Income	\$ (989,000)	\$ (671,000)	\$ (136,000)	\$ 17,000	\$203,000

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (50,000)	\$(1,514,000)	\$ (3,394,000)	\$ (4,988,000)	\$ (6,586,000)
Depreciation Reserve	-	922,000	1,018,000	520,000	326,000
Interest Reserve	185,000	-	-	-	-
Debt Service Reserve	185,000	575,000	575,000	575,000	575,000
Total Cash Balance	\$320,000	\$ (17,000)	\$ (1,801,000)	\$ (3,893,000)	\$ (5,685,000)

Again, the unrestricted cash balance in the base case analysis (Table 13) for a retail model is projected as approximately \$491,000 in year five. As Table 21 shows below, the projected unrestricted cash balance with a 30 percent take rate is a loss of approximately \$2.5 million in year five.

Table 21: Take Rate Reduced to 30 Percent – Retail Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$341,000	\$1,634,000	\$1,634,000	\$1,634,000	\$ 1,634,000
Total Cash Expenses	(911,000)	(1,340,000)	(1,340,000)	(1,340,000)	(1,340,000)
Depreciation	(234,000)	(803,000)	(488,000)	(480,000)	(480,000)
Interest Expense	(185,000)	(493,000)	(384,000)	(247,000)	(72,000)
Taxes	-	-	-	-	-
Net Income	\$ (989,000)	\$ (1,002,000)	\$ (578,000)	\$ (433,000)	\$ (258,000)

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (50,000)	\$ (2,469,000)	\$ (6,431,000)	\$ (10,216,000)	\$ (14,002,000)
Depreciation Reserve	-	816,000	950,000	600,000	554,000
Interest Reserve	185,000	-	-	-	-
Debt Service Reserve	185,000	535,000	535,000	535,000	535,000
Total Cash Balance	\$ 320,000	\$ (1,118,000)	\$ (4,946,000)	\$ (9,081,000)	\$ (12,913,000)

7.3 Wholesale Model Financial Projections

The financial analysis in this section assumes the City of Hayward owns and operates the FTTP infrastructure and provides wholesale service to ISPs. The ISPs in turn offer retail service businesses in the identified service area. This financial analysis is based on several assumptions, outlined below.

In the analysis, we assume the City offers four wholesale base services, based on a 25 percent discount from the retail model.

- A 250 Mbps commercial service at \$75 per month;
- A 1 Gbps small commercial service at \$150 per month;
- A 1 Gbps medium commercial service at \$300 per month (including service-level agreement); and
- A 1 Gbps Metro Ethernet transport service at \$750 per month (including service-level agreement).

We assumed that 68 percent of subscribers will purchase the 250 Mbps service; 15 percent will purchase the 1 Gbps small commercial service; 15 percent will purchase the 1 Gbps medium commercial service; and 2 percent will purchase the 1 Gbps Metro Ethernet service.

As in the case of the retail model, a 60 percent take rate is required to maintain a positive cash flow.

The financial analysis for this base case scenario is as follows:

Table 22: Wholesale Model Financial Analysis with 60 Percent Take Rate (Base Case)

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$271,000	\$2,460,000	\$2,460,000	\$2,460,000	\$2,460,000
Total Cash Expenses	(572,750)	(934,250)	(934,250)	(934,250)	(934,250)
Depreciation	(233,000)	(1,253,000)	(623,000)	(616,000)	(616,000)
Interest Expense	(175,000)	(589,000)	(465,000)	(308,000)	(107,000)
Taxes	-	-	-	-	-
Net Income	\$ (709,750)	\$ (316,250)	\$437,750	\$601,750	\$802,750

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$55,250	\$57,250	\$909,000	\$2,257,750	\$3,601,500
Depreciation Reserve	-	1,132,000	1,154,000	366,000	(118,000)
Interest Reserve	175,000	-	-	-	-
Debt Service Reserve	175,000	630,000	630,000	630,000	630,000
Total Cash Balance	\$405,250	\$1,819,250	\$2,693,000	\$3,253,750	\$4,113,500

This analysis does not indicate or review whether obtaining this required take rate is realistic; rather, it reflects the take rate necessary to maintain a positive cash flow, considering all other assumptions in the model. The complete model is provided in Appendix D.

Please note that we used a “flat model” in the analysis. With a “flat model,” inflation and salary cost increases are not used in the analysis because it is assumed that operating cost increases will be offset and passed on to subscribers in the form of increased prices. Models that add an inflation factor to both revenues and expenses can greatly overstate net revenues in the out-years since net revenues would then also increase by the same inflation factor.

7.3.1 Financing Costs and Operating Expenses

This financial analysis assumes a combination of bonds and loans will be necessary. We expect that the City will seek 20-year bonds with principal repayments starting the year after issuance.

We project that the bond issuance costs will be equal to 1.0 percent of the principal borrowed. For the bond, a debt service reserve account is maintained at 5.0 percent of the total issuance amount. An interest reserve account equal to years one and two interest expense is maintained for the first two years.

Our analysis estimates total bonding requirements to be \$12.6 million and are issued at a 5 percent interest rate.

The model assumes a straight-line depreciation of assets, and that the OSP and materials will have a 20-year life span while network equipment will need to be replaced after 10 years. Last mile and CPEs as well as other miscellaneous implementation costs will need to be accounted for after five years. Network equipment will be replaced or upgraded at 80 percent of its original cost, miscellaneous implementation costs will be at 100 percent, and last mile and CPEs will be at 100 percent. The model plans for a depreciation reserve account starting in year three - this funds future electronics replacements and upgrades.

Table 23 shows operating expenses for years one, five, 10, 15, and 20. As seen, some expenses will remain constant while others will increase as the network matures and the customer base increases.

Table 23: Operating Expenses in Years 1, 5, 10, 15, and 20 – Wholesale Model

Operating Expenses	Year 1	Year 5	Year 10	Year 15	Year 20
Support Services	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	25,000	50,000	50,000	50,000	50,000
Utilities	-	-	-	-	-
Office Expenses	6,000	6,000	6,000	6,000	6,000
Facility Lease	-	-	-	-	-
Locates & Ticket Processing	8,000	31,000	31,000	31,000	31,000
Peering	-	-	-	-	-
Contingency	10,000	25,000	25,000	25,000	25,000
Billing Maintenance Contract	10,000	20,000	20,000	20,000	20,000
Fiber & Network Maintenance	16,000	55,000	55,000	55,000	55,000
Vendor Maintenance Contracts	-	83,000	83,000	83,000	83,000
Legal and Lobby Fees	50,000	10,000	10,000	10,000	10,000
Planning	-	-	-	-	-
Consulting	50,000	10,000	10,000	10,000	10,000
Marketing	30,000	15,000	15,000	15,000	15,000
Education and Training	7,000	11,000	11,000	11,000	11,000
Customer Handholding	-	-	-	-	-
Customer Billing (Unit)	-	5,000	5,000	5,000	5,000
Allowance for Bad Debts	-	-	-	-	-
Churn (acquisition costs)	-	-	-	-	-
Pole Attachment Expense	-	-	-	-	-
Internet	<u>30,000</u>	<u>41,000</u>	<u>41,000</u>	<u>41,000</u>	<u>41,000</u>
Sub-Total	\$242,000	\$362,000	\$362,000	\$362,000	\$362,000
Labor Expenses	<u>\$330,750</u>	<u>\$572,250</u>	<u>\$572,250</u>	<u>\$572,250</u>	<u>\$572,250</u>
Sub-Total	\$330,750	\$572,250	\$572,250	\$572,250	\$572,250
Total Expenses	\$572,750	\$934,250	\$934,250	\$934,250	\$934,250

Table 24 shows the income statement for years one, five, 10, 15, and 20.

Table 24: Income Statement – Wholesale Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Revenues					
Internet - Business	\$207,000	\$2,460,000	\$2,460,000	\$2,460,000	\$2,460,000
Connection Fee (net)	64,000	-	-	-	-
Per Passing	-	-	-	-	-
Per Customer	-	-	-	-	-
Provider Fee	-	-	-	-	-
Assessments	-	-	-	-	-
Ancillary Revenues	-	-	-	-	-
Total	\$271,000	\$2,460,000	\$2,460,000	\$2,460,000	\$2,460,000
b. Content Fees					
Internet	\$30,000	\$41,000	\$41,000	\$41,000	\$41,000
Total	\$30,000	\$41,000	\$41,000	\$41,000	\$41,000
c. Operating Costs					
Operation Costs	\$212,000	\$321,000	\$321,000	\$321,000	\$321,000
Labor Costs	330,750	572,250	572,250	572,250	572,250
Total	\$542,750	\$893,250	\$893,250	\$893,250	\$893,250
d. EBITDA					
	\$(301,750)	\$1,525,750	\$1,525,750	\$1,525,750	\$1,525,750
e. Depreciation					
	233,000	1,253,000	623,000	616,000	616,000
f. Operating Income (EBITDA less Depreciation)					
	\$(534,750)	\$272,750	\$902,750	\$909,750	\$909,750
g. Non-Operating Income					
Interest Income	\$ -	\$4,000	\$4,000	\$2,000	\$1,000
Interest Expense (10 Year Bond)	-	-	-	-	-
Interest Expense (20 Year Bond)	(175,000)	(593,000)	(469,000)	(310,000)	(108,000)
Interest Expense (Loan)	-	-	-	-	-
Total	\$ (175,000)	\$ (465,000)	\$ (465,000)	\$ (308,000)	\$ (107,000)
h. Net Income (before taxes)					
	\$(709,750)	\$(316,250)	\$437,750	\$601,750	\$802,750
i. Facility Taxes					
	\$ -	\$ -	\$ -	\$ -	\$ -
j. Net Income					
	\$(709,750)	\$(316,250)	\$437,750	\$601,750	\$802,750

Table 25 shows the cash flow statement for years one, five, 10, 15, and 20.

Table 25: Cash Flow Statement – Wholesale Model

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Net Income	\$ (709,750)	\$ (316,250)	\$437,750	\$601,750	\$802,750
b. Cash Outflows					
Debt Service Reserve	\$ (175,000)	\$ -	\$ -	\$ -	\$ -
Interest Reserve	(350,000)	-	-	-	-
Depreciation Reserve	-	(439,000)	(218,000)	(216,000)	(216,000)
Financing	(35,000)	-	-	-	-
Capital Expenditures	<u>(2,583,000)</u>	-	-	-	-
Total	\$ (3,143,000)	\$ (439,000)	\$ (218,000)	\$ (216,000)	\$ (216,000)
c. Cash Inflows					
Interest Reserve	\$175,000	\$105,000	\$ -	\$ -	\$ -
Depreciation Reserve	-	-	-	-	-
Investment Capital	-	-	-	-	-
Start Up Funds	-	-	-	-	-
Grants (infrastructure)	-	-	-	-	-
Grants (customer premises)	-	-	-	-	-
10-Year Bond/Loan Proceeds	-	-	-	-	-
20-Year Bond Proceeds	3,500,000	-	-	-	-
Loan Proceeds	-	-	-	-	-
Total	<u>\$3,675,000</u>	<u>\$105,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
d. Total Cash Outflows and Inflows	\$532,000	\$ (334,000)	\$ (218,000)	\$ (216,000)	\$ (216,000)
e. Non-Cash Expenses - Depreciation	\$233,000	\$1,253,000	\$623,000	\$616,000	\$616,000
f. Adjustments					
Proceeds from Additional Cash Flows (10 Year Bond)	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (20 Year Bond)	\$ (3,500,000)	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (Loan)	\$ -	\$ -	\$ -	\$ -	\$ -
g. Adjusted Available Net Revenue	\$ (3,444,750)	\$602,750	\$842,750	\$1,001,750	\$1,202,750
h. Principal Payments on Debt					
10 Year Bond Principal	\$ -	\$ -	\$ -	\$ -	\$ -
20 Year Bond Principal	-	450,000	574,000	732,000	935,000
Loan Principal	-	-	-	-	-
Total	<u>\$ -</u>	<u>\$450,000</u>	<u>\$574,000</u>	<u>\$732,000</u>	<u>\$935,000</u>
j. Cash Balance					
Unrestricted Cash Balance	\$55,250	\$57,250	\$909,000	\$2,257,750	\$3,601,500
Depreciation Reserve	-	1,132,000	1,154,000	366,000	(118,000)
Interest Reserve	175,000	-	-	-	-
Debt Service Reserve	<u>175,000</u>	<u>630,000</u>	<u>630,000</u>	<u>630,000</u>	<u>630,000</u>
Total Cash Balance	\$405,250	\$1,819,250	\$2,693,000	\$3,253,750	\$4,113,500

Significant network expenses—known as “capital additions”—are incurred in the first few years during the construction phase of the network. These represent the equipment and labor expenses associated with building, implementing, and lighting a fiber network. Table 26 shows the capital additions costs in years one, two, and three, and the total for years one through three.

This analysis projects that the capital additions in year one will total approximately \$2.6 million. These costs will total approximately \$3.5 million in year two, \$1.8 million in year three, and \$2.6 million in year four. This totals just over \$10.5 million for total capital additions costs for years one through four.

Table 26: Capital Additions – Wholesale Model

Capital Additions	Year 1	Year 2	Year 3	Year 4
Network Equipment				
Core Network Equipment	\$380,000	\$ -	\$ -	\$ -
TBD	-	-	-	-
Additional Annual Capital	-	-	-	-
Total	\$380,000	\$ -	\$ -	\$ -
Outside Plant and Facilities				
Total Backbone and FTTP	\$1,635,000	\$2,726,000	\$1,090,000	\$ -
Additional Annual Capital	-	-	-	-
Total	\$1,635,000	\$2,726,000	\$1,090,000	\$ -
Last Mile and Customer Premises Equipment				
CPE (residential and small commercial)	\$91,000	\$182,000	\$182,000	\$638,000
CPE (medium commercial)	18,000	36,000	35,000	124,000
CPE (enterprise)	6,000	10,000	10,000	36,000
Average Drop Cost	263,000	525,000	523,000	1,836,000
Additional Annual Replacement Capital	-	-	-	-
Total	\$378,000	\$753,000	\$750,000	\$2,634,000
Miscellaneous Implementation Costs				
Splicing	\$ -	\$ -	\$ -	\$ -
Vehicles	50,000	-	-	-
Emergency Restoration Kit	50,000	-	-	-
Work Station, Computers, and Software	5,000	4,000	-	2,000
Fiber OTDR and Other Tools	85,000	-	-	-
Generators & UPS	-	-	-	-
OSS	-	-	-	-
Additional Annual Capital	-	-	-	-
Total	\$190,000	\$4,000	\$ -	\$2,000
Replacement Costs for Depreciation				
Network Equipment	\$ -	\$ -	\$ -	\$ -
Customer Premises Equipment	-	-	-	-
Miscellaneous Implementation Costs	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Total Capital Additions	\$2,583,000	\$3,483,000	\$1,840,000	\$2,636,000

7.3.2 Operating and Maintenance Expenses

The cost to deploy an FTTP network goes far beyond fiber implementation. Network deployment requires additional staffing for sales and marketing, network operations, and other functions. The addition of new staff and inventory requirements will require office and warehousing space:

- Expand office facilities for management, technical and clerical staff
- Provide warehousing for receipt and storage of cable and hardware for the installation and on-going maintenance of the broadband infrastructure
- Establish location to house servers, switches, routers, and other core-network equipment

Training new and existing staff is important to fully realize the economies of starting the FTTP network. The training will be particularly important in the short-term as the new enterprise establishes itself as a unique entity providing services distinct from services provided by the City today.

The expanded business and increased responsibilities will require the addition of new staff. Even in the wholesale service model - marketing and sales are critical. It is important to be proactive in setting expectations, addressing security concerns, and educating the ISPs on how to initiate services.

The initial additional positions, staffing levels, and base salaries are shown in Table 27. Please note that, in the financial model, a 40 percent overhead is added to the salaries listed below.

Table 27: Labor Expenses – Wholesale Model

	Year 1	Year 2	Year 3	Year 4	Year 5+	Labor Cost
New Employees						
Business Manager	0.50	1.00	1.00	1.00	1.00	130,000
GIS	0.50	1.00	1.00	1.00	1.00	80,000
Communications - Sales	0.25	0.25	0.25	0.25	0.25	75,000
Customer Service Representative	-	-	-	-	-	65,000
Service Technicians/Installers & IT Support	1.00	1.00	1.00	2.00	2.00	90,000
Fiber Plant O&M Technicians	0.25	1.00	1.00	1.00	1.00	90,000
Total New Staff	2.5	4.25	4.25	5.25	5.25	

7.3.3 Summary of Operating and Maintenance Expenses

Additional key operating and maintenance assumptions include:

- Salaries and benefits are based on estimated market wages. See Table 27 for a list of staffing requirements. Benefits are estimated at 40 percent of base salary.
- Insurance is estimated to be \$25,000 in year one and \$50,000 from year two on.
- Office expense allocations are estimated to be \$6,000 per year
- Locates and ticket processing are estimated to start in year one at \$8,000, increase to \$15,000 in year two, and increase to \$31,000 from year three on.
- Contingency is estimated to be \$10,000 in year one and \$25,000 from year two on.

- Billing and maintenance contract fees are estimated at \$10,000 in year one, and \$20,000 from year two on.
- Legal fees are estimated to be \$50,000 in year one, and \$10,000 from year two on.
- Consulting fees are estimated at \$50,000 in year one, and \$10,000 from year three on.
- Marketing and promotional expenses are estimated to be \$30,000 in year one, and \$15,000 from year two on.

Vendor maintenance contract fees are expected to start at \$43,000 in year two, \$52,000 in year three, and \$83,000 year four on. Annual variable and operating expenses not including direct Internet access include:

- Education and training are calculated as 2 percent of direct payroll expense.
- Customer billing is estimated to be \$0.25 per bill per month.

Fiber network maintenance costs are calculated at 1 percent of the total construction cost, per year. This is estimated based on a typical rate of occurrence in an urban environment, and the cost of individual repairs. This is in addition to staffing costs to maintain fiber.

Internet and peering is estimated at \$1.25 per Mbps per month for the first 2 Gbps and \$1.00 per Mbps per month thereafter.

7.3.4 Take-Rate Sensitivity

This section shows the large impact that fluctuations in take rate can have on financial modeling. In the following tables, we show the financial projections for take rates of 50 percent, 40 percent, and 30 percent.

As discussed in the retail model, obtaining a 60 percent take rate is considered aggressive, and will likely be difficult to obtain and maintain. Realistically, we would expect a 35 percent to 45 percent take rate.

Table 28, below, shows financial projections for a 50 percent take rate. While projections for year one are identical to our base case scenario of 60 percent (seen in Table 22, above), the City's unrestricted cash balance shows a loss of approximately \$641,000 by year five, and this continues to increase. By year 20, the unrestricted cash balance shows a loss of approximately \$1.6 million. This is a \$5.2 million difference between the base case scenario with a 60 percent take rate and a scenario with a 50 percent take rate.

Table 28: Take Rate Reduced to 50 Percent – Wholesale Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$271,000	\$2,053,000	\$2,053,000	\$2,053,000	\$2,053,000
Total Cash Expenses	(572,750)	(918,250)	(918,250)	(918,250)	(918,250)
Depreciation	(233,000)	(1,102,000)	(578,000)	(570,000)	(570,000)
Interest Expense	(175,000)	(549,000)	(432,000)	(284,000)	(94,000)
Taxes	-	-	-	-	-
Net Income	\$ (709,750)	\$ (516,250)	\$124,750	\$280,750	\$470,750

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$55,250	\$ (640,750)	\$ (1,226,000)	\$ (1,422,250)	\$ (1,621,500)
Depreciation Reserve	-	1,026,000	1,087,000	447,000	111,000
Interest Reserve	175,000	-	-	-	-
Debt Service Reserve	175,000	590,000	590,000	590,000	590,000
Total Cash Balance	\$405,250	\$975,250	\$451,000	\$ (385,250)	\$ (920,500)

As take rate continues to decrease, financial projections follow suit. As shown in Table 29, below, unrestricted cash balance for a take rate of 40 percent falls to a deficit of nearly \$1.5 million by year five. This negative balance continues to grow to over \$7 million by year 20. Further, with a take rate of 40 percent, the City would not generate a positive net income until year 20.

Compared to the base model, a 40 percent take rate will dramatically affect unrestricted cash balance, result in a nearly \$1.5 million difference by year five, and an over \$10.5 million difference by year 20.

Table 29: Take Rate Reduced to 40 Percent – Wholesale Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$271,000	\$1,632,000	\$1,632,000	\$1,632,000	\$1,632,000
Total Cash Expenses	(572,750)	(903,250)	(903,250)	(903,250)	(903,250)
Depreciation	(233,000)	(952,000)	(532,000)	(524,000)	(524,000)
Interest Expense	(175,000)	(504,000)	(395,000)	(257,000)	(81,000)
Taxes	-	-	-	-	-
Net Income	\$ (709,750)	\$ (727,250)	\$ (198,250)	\$ (52,250)	\$ 123,750

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$55,250	\$ (1,447,750)	\$ (3,501,000)	\$ (5,268,250)	\$ (7,039,500)
Depreciation Reserve	-	920,000	1,020,000	525,000	334,000
Interest Reserve	175,000	-	-	-	-
Debt Service Reserve	175,000	545,000	545,000	545,000	545,000
Total Cash Balance	\$405,250	\$17,250	\$ (1,936,000)	\$ (4,198,250)	\$ (6,160,500)

Table 30 shows our lowest projected take rate of 30 percent. In this model, the unrestricted cash balance is a deficit of over \$2 million by year five, and the deficit continues to grow to over \$12 million by year twenty. In this model, the City is unable to generate a positive net income over the course of 20 years.

In comparison to our base model of a 60 percent take rate, the difference in unrestricted cash balance by year five is over \$2.2 million, and nearly \$16 million by year 20.

Table 30: Take Rate Reduced to 30 Percent – Wholesale Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$271,000	\$1,226,000	\$1,226,000	\$1,226,000	\$1,226,000
Total Cash Expenses	(572,750)	(893,250)	(893,250)	(893,250)	(893,250)
Depreciation	(233,000)	(801,000)	(486,000)	(479,000)	(479,000)
Interest Expense	(175,000)	(465,000)	(362,000)	(234,000)	(68,000)
Taxes	-	-	-	-	-
Net Income	\$ (709,750)	\$ (933,250)	\$ (515,250)	\$ (380,250)	\$ (214,250)

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$55,250	\$ (2,155,750)	\$ (5,671,000)	\$ (9,014,250)	\$ (12,358,500)
Depreciation Reserve	-	814,000	952,000	610,000	572,000
Interest Reserve	175,000	-	-	-	-
Debt Service Reserve	<u>175,000</u>	<u>505,000</u>	<u>505,000</u>	<u>505,000</u>	<u>505,000</u>
Total Cash Balance	\$405,250	\$ (836,750)	\$ (4,214,000)	\$ (7,899,250)	\$ (11,281,500)

7.4 Dark FTTP Model Financial Analysis

The financial analysis for all scenarios presented here represents a minimum requirement for the City to break even each year, excluding any potential revenue from other dark fiber lease opportunities that may be available to the City.

The base case scenario assumes that the City’s private partner will pay a fee of \$40 per passing per month, with no upfront or balloon payments. Based on an assumption that the City will deploy an FTTP network in the identified business area, the financial model applies the fee to all business premises in the identified service area. The current model keeps constant the \$40 per passing fee, though the City and its partner could negotiate periodic increases.

Please note there is no market data or examples of the dark FTTP model with a business focus. For example, in its agreement with Huntsville Utilities in Huntsville, Alabama, Google Fiber pays under \$10 per month per passing, but this is for residences only—no businesses are included. The per-passing fee is the largest “risk” in the model and could be tested with the recommended RFI.

Further, the \$40 fee is based on a full recovery of capital and expenses. The FTTP deployment is likely to have additional economic development and other benefits that are not easily measured. In recognition of these benefits, the City could choose to provide funding to the proposed enterprise that would lower the required per passing fee.

The financial analysis for the base case scenario is as follows:

Table 31: Base Case Financial Analysis – Dark FTTP Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$6,140	\$1,226,880	\$1,226,880	\$1,226,880	\$1,226,880
Total Cash Expenses	(373,750)	(549,250)	(549,250)	(549,250)	(549,250)
Depreciation	(119,000)	(311,000)	(311,000)	(311,000)	(311,000)
Interest Expense	(130,000)	(351,000)	(275,000)	(176,000)	(51,000)
Taxes	-	-	-	-	-
Net Income	\$ (616,610)	\$15,630	\$91,630	\$190,630	\$315,630

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (6,610)	\$10,340	\$25,490	\$40,640	\$56,790
Depreciation Reserve	-	141,000	185,000	229,000	273,000
Interest Reserve	130,000	-	-	-	-
Debt Service Reserve	<u>130,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>
Total Cash Balance	\$253,390	\$531,340	\$590,490	\$649,640	\$709,790

Please note that we used a “flat model” in the analysis, which means that inflation and operating cost increases (including salaries) are not used because it is assumed that operating cost increases will be offset by increases in operator lease payments over time (and likely passed on to subscribers in the form of increased prices). We anticipate that the City will apply an inflation factor, typically based on a Consumer Price Index (CPI), to the portion of the per-subscriber fee that covers projected operating expenses during negotiations with a private partner. Please note that it is not appropriate to apply a CPI to the entire passing fee because most of the fee is to support the principal and interest on the debt service.

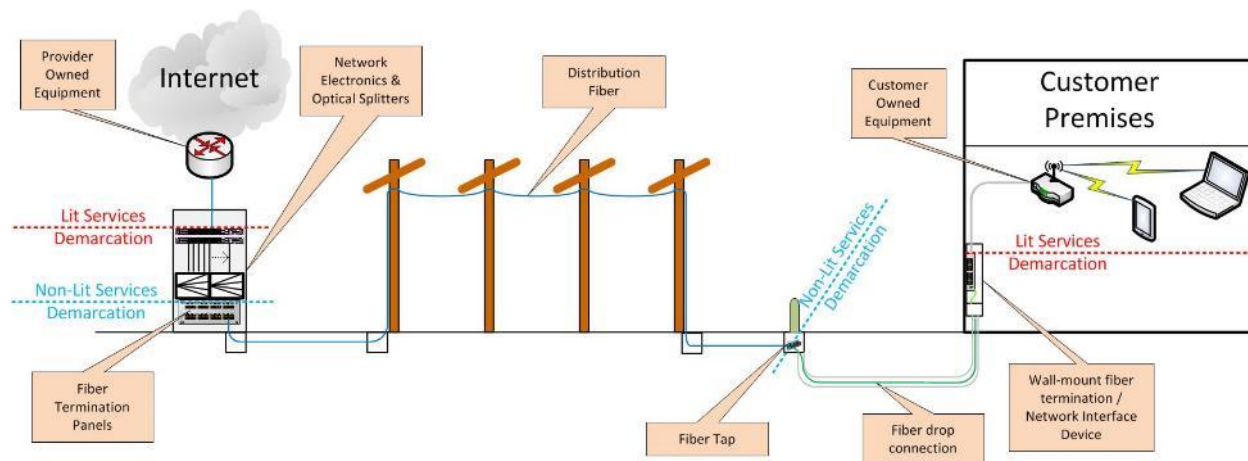
This document presents an overview of the financial model; we have provided the City with a complete financial model in Excel format. Because the Excel spreadsheets can be manipulated to show the impact of changing assumptions it will be an important tool for the City to use as it negotiates with a private partner.

This analysis does not contain any potential revenue from wireless ISPs that are looking for connectivity to wireless access points. A wireless ISP could leverage the FTTP infrastructure and avoid drop costs and investment in the electronics for the FTTP network. The use of the fiber is dependent upon the wireless technologies implemented by the wireless ISP.

7.4.1 Cost Implications of the Dark FTTP Model

The financial analysis in this section assumes that the City constructs and owns the FTTP infrastructure up to a demarcation point at the optical tap near each residence and business, and leases the dark fiber backbone and distribution fiber to a private partner. The private partner would be responsible for all network electronics, fiber drops to subscribers, and CPEs— as well as network sales, marketing, and operations.

Figure 11: Demarcation Between City and Partner Network Elements



Using 100 percent underground construction, the dark FTTP network deployment for the business park will cost approximately \$5.5 million, including OSP construction labor, materials, engineering, permitting, and pole attachment licensing. This estimate does not include and electronics, subscriber equipment, or drops.

Table 32: Breakdown of Estimated Dark FTTP Model Cost (aerial and underground construction)

Cost Component	Total Estimated Cost
OSP Engineering	\$519,000
Quality Control/Quality Assurance	192,000
General OSP Construction Cost	3,158,000
Special Crossings	703,000
Backbone and Distribution Plant Splicing	139,000
Backbone Hub, Termination, and Testing	475,000
FTTP Lateral Installations	265,000
Total Estimated Cost:	\$5,451,000

The above estimates assume that the City constructs and owns the FTTP infrastructure up to a demarcation point at the optical tap near each business, and leases the dark fiber backbone and distribution fiber to a private partner. The private partner would be responsible for all network electronics, fiber drops to subscribers, and CPEs—as well as network sales, marketing, and operations.

The ownership of the drops is an assumption that could be changed through negotiation with a private partner—as, indeed, could many of the assumptions underpinning this analysis. We have chosen this key parameter for the base case scenario because we believe this approach presents a reasonable balance of costs, control, and risk for the City. (City ownership of the drops, for example, would increase the City’s control, but also significantly increase the City’s costs.)

In a related vein, we note that some network operators suggest that the network’s optical splitters should be a part of the Layer 1 or dark fiber assets. We caution against this approach. The network operator (i.e., the City’s partner) should maintain the splitters because, as operator of the electronics, it must determine and control the GPON network split ratio to meet the network’s performance standards. This may involve moving power users to GPON ports with lower split ratios, or moving users to different splitters to manage the capacity of the GPON ports. The City should not be involved in this level of network management. Also, the City should not have to inventory various sized splitters or swap them as the network operator makes changes. Even if the City were to decide to purchase some of the optical splitters for the network, we believe it should be the network operator’s responsibility to manage and maintain the splitters.

7.4.2 Financing Costs and Operating Expenses

For the base financial analysis, we used the OSP costs for a combination aerial and underground construction. In the scenarios, we show the impact of the increased costs for an all-underground deployment.

This financial analysis assumes that the City will cover all its capital requirements with general obligation (GO) bonds. We assumed that the City’s bond rate would be 5 percent.

We expect that the City will take three 20-year bonds—one each in years one, two, and three—for a total of \$7.6 million in financing. (The difference between the financed amount and the total capital costs represents the amount needed to maintain positive cash flow in the early years of network deployment.) The resulting principal and interest (P&I) payments will be the major factor in determining the City’s long-term financial requirements; P&I accounts for about 53 percent of the City’s annual costs in our base case model after the construction period.

We project that the bond issuance costs will be equal to 1.0 percent of the principal borrowed. For the bond, a debt service reserve account is maintained at 5.0 percent of the total issuance amount. An interest reserve account will be maintained for the first two years. Principal repayment on the bonds will start in year two.

The model assumes a straight-line depreciation of assets, and that the OSP and materials will have a 20-year life span. Because we assume the City's partner will be responsible for network electronics and CPE, we have not included depreciation or replacement costs for that equipment (although we note that, typically, network equipment would be replaced after 10 years, while CPE and last-mile infrastructure would be depreciated over five years). The model plans for a depreciation reserve account starting in year three to fund future replacements and upgrades.

Table 33 shows the income statement for years one, five, 10, 15, and 20.

Table 33: Income Statement – Dark FTTP Model

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Revenues					
Internet - Business	\$ -	\$ -	\$ -	\$ -	\$ -
Connection Fee (net)	-	-	-	-	-
Per Passing	6,140	1,226,880	1,226,880	1,226,880	1,226,880
Per Customer	-	-	-	-	-
Provider Fee	-	-	-	-	-
Assessments	-	-	-	-	-
Ancillary Revenues	-	-	-	-	-
Total	\$ 6,140	\$ 1,226,880	\$ 1,226,880	\$ 1,226,880	\$ 1,226,880
b. Content Fees					
Internet	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -
c. Operating Costs					
Operation Costs	\$169,000	\$194,000	\$194,000	\$194,000	\$194,000
Labor Costs	204,750	355,250	355,250	355,250	355,250
Total	\$373,750	\$549,250	\$549,250	\$549,250	\$549,250
d. EBITDA	\$ (367,610)	\$ 677,630	\$ 677,630	\$ 677,630	\$ 677,630
e. Depreciation	119,000	311,000	311,000	311,000	311,000
f. Operating Income (EBITDA less Depreciation)	\$ (486,610)	\$366,630	\$366,630	\$366,630	\$366,630
g. Non-Operating Income					
Interest Income	\$ -	\$1,000	\$1,000	\$2,000	\$2,000
Interest Expense (10 Year Bond)	-	-	-	-	-
Interest Expense (20 Year Bond)	(130,000)	(352,000)	(276,000)	(178,000)	(53,000)
Interest Expense (Loan)	-	-	-	-	-
Total	\$ (130,000)	\$ (275,000)	\$ (275,000)	\$ (176,000)	\$ (51,000)
h. Net Income (before taxes)	\$ (616,610)	\$15,630	\$91,630	\$190,630	\$315,630
i. Facility Taxes	\$ -	\$ -	\$ -	\$ -	\$ -
j. Net Income	\$ (616,610)	\$15,630	\$91,630	\$190,630	\$315,630

Table 34 shows the cash flow statement for years one, five, 10, 15, and 20.

Table 34: Cash Flow Statement – Dark FTTP Model

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
a. Net Income	\$ (616,610)	\$15,630	\$91,630	\$190,630	\$315,630
b. Cash Outflows					
Debt Service Reserve	\$ (130,000)	\$ -	\$ -	\$ -	\$ -
Interest Reserve	(260,000)	-	-	-	-
Depreciation Reserve	-	(47,000)	(47,000)	(47,000)	(47,000)
Financing	(26,000)	-	-	-	-
Capital Expenditures	<u>(1,823,000)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ (2,239,000)	\$ (47,000)	\$ (47,000)	\$ (47,000)	\$ (47,000)
c. Cash Inflows					
Interest Reserve	\$130,000	\$ -	\$ -	\$ -	\$ -
Depreciation Reserve	-	-	-	-	-
Investment Capital	-	-	-	-	-
Start Up Funds	-	-	-	-	-
Grants (infrastructure)	-	-	-	-	-
Grants (customer premises)	-	-	-	-	-
10-Year Bond/Loan Proceeds	-	-	-	-	-
20-Year Bond Proceeds	2,600,000	-	-	-	-
Loan Proceeds	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ 2,730,000	\$ -	\$ -	\$ -	\$ -
d. Total Cash Outflows and Inflows	\$491,000	\$ (47,000)	\$ (47,000)	\$ (47,000)	\$ (47,000)
e. Non-Cash Expenses - Depreciation	\$119,000	\$311,000	\$311,000	\$311,000	\$311,000
f. Adjustments					
Proceeds from Additional Cash Flows (10 Year Bond)	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (20 Year Bond)	\$ (2,600,000)	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (Loan)	\$ -	\$ -	\$ -	\$ -	\$ -
g. Adjusted Available Net Revenue	\$ (2,606,610)	\$279,630	\$355,630	\$454,630	\$579,630
h. Principal Payments on Debt					
10 Year Bond Principal	\$ -	\$ -	\$ -	\$ -	\$ -
20 Year Bond Principal	-	277,000	353,000	451,000	576,000
Loan Principal	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ -	\$277,000	\$353,000	\$451,000	\$576,000

j. Cash Balance

Unrestricted Cash Balance	\$ (6,610)	\$10,340	\$25,490	\$40,640	\$56,790
Depreciation Reserve	-	141,000	185,000	229,000	273,000
Interest Reserve	130,000	-	-	-	-
Debt Service Reserve	<u>130,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>
Total Cash Balance	\$253,390	\$531,340	\$590,490	\$649,640	\$709,790

Significant network expenses—known as “capital additions”—are incurred in the first few years during the construction phase of the network. These represent the equipment and labor expenses associated with building a fiber network. (Again, because the City’s responsibility will be limited to OSP, we have not included any costs for core network equipment, drops, or CPE.) This analysis projects that the capital additions (including vehicles and test equipment) in year one will total approximately \$1.8 million. These costs will total approximately \$2.7 million in year two, and \$1.1 million in year three. This totals just over \$5.6 million in capital additions for years one through three.

Table 35 – Capital Additions – Dark FTTP Model

Capital Additions	Year 1	Year 2	Year 3
Network Equipment			
Core Network Equipment	\$ -	\$ -	\$ -
TBD	-	-	-
Additional Annual Capital	-	-	-
Total	\$ -	\$ -	\$ -
Outside Plant and Facilities			
Total Backbone and FTTP	\$1,635,000	\$2,726,000	\$1,090,000
Additional Annual Capital	-	-	-
Total	\$1,635,000	\$2,726,000	\$1,090,000
Last Mile and Customer Premises Equipment			
CPE (residential and small commercial)	\$ -	\$ -	\$ -
CPE (medium commercial)	-	-	-
CPE (enterprise)	-	-	-
Average Drop Cost	-	-	-
Additional Annual Replacement Capital	-	-	-
Total	\$ -	\$ -	\$ -
Miscellaneous Implementation Costs			
Splicing	\$ -	\$ -	\$ -
Vehicles	50,000	-	-
Emergency Restoration Kit	50,000	-	-
Work Station, Computers, and Software	3,000	3,000	-
Fiber OTDR and Other Tools	85,000	-	-
Generators & UPS	-	-	-
OSS	-	-	-
Additional Annual Capital	-	-	-
Total	\$188,000	\$3,000	\$ -
Replacement Costs for Depreciation			
Network Equipment	\$ -	\$ -	\$ -
Customer Premises Equipment	-	-	-
Miscellaneous Implementation Costs	-	-	-
Total	\$ -	\$ -	\$ -
Total Capital Additions	\$1,823,000	\$2,729,000	\$1,090,000

7.4.3 Operating and Maintenance Expenses

The cost to deploy an FTTP network goes far beyond fiber implementation. Network deployment requires network maintenance and technical operations, and other functions. In this model, we assume that the City's partner will be responsible for lighting the fiber and selling services, so the City's financial requirements are limited to expenses related to OSP infrastructure and network administration.

These expanded responsibilities will require the addition of new staff. We assume the City will add a total of three and three-quarters full-time-equivalent (FTE) positions within the first three years, and will then maintain that level of staffing. Our assumptions include one-half FTE for management, one FTE for GIS, one-quarter FTE for communication support, and one FTE for fiber plant maintenance and operations. Salaries and benefits are based on estimated market wages, and benefits are estimated at 40 percent of base salary.

Some of these responsibilities can be contracted out, while some can be absorbed into existing positions within the City. Each City's circumstances are unique, and the skill sets that exist within an organization will inform to what degree responsibilities must be contracted out. We encourage the City to train internal staff for all record-keeping responsibilities—particularly network details such as fiber strand usage and locations. We cannot overstate the importance of keeping meticulous records on the fiber to maintain the long-term integrity of the network, and keeping this function in-house gives the City the greatest degree of control over these records' accuracy.

Locates and ticket processing will be significant ongoing operational expenses for the City. Based on our experience in other cities, we estimate that a contract for locates will cost \$8,000 in year one, increase to \$15,000 in year two, and increase to \$31,000 from year three on. (If the City decides to perform this work in-house, the contract expense would be eliminated—but staffing expenses would increase.)

Additional key operating and maintenance assumptions include the following:

- Insurance is estimated to be \$25,000 in year one and \$50,000 from year two on.
- Office expenses are estimated to be \$2,400 annually.
- Contingency expenses are estimated at \$10,000 in year one and \$25,000 in subsequent years.
- Legal fees are estimated to be \$50,000 in year one and \$10,000 from year two on.
- Consulting fees are estimated at \$50,000 in year one and \$10,000 from year two on.

Fiber network maintenance costs are calculated at one percent of the total construction cost, per year. This is estimated based on a typical rate of occurrence in an urban environment, and the cost of individual repairs. This is in addition to staffing costs to maintain the fiber.

Table 36 lists the City's projected operating expenses for years one, five, 10, 15, and 20.

Table 36: Operating Expenses Dark FTTP Model

Operating Expenses	Year 1	Year 5	Year 10	Year 15	Year 20
Support Services	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	25,000	50,000	50,000	50,000	50,000
Utilities	-	-	-	-	-
Office Expenses	6,000	6,000	6,000	6,000	6,000
Facility Lease	-	-	-	-	-
Locates & Ticket Processing	8,000	31,000	31,000	31,000	31,000
Peering	-	-	-	-	-
Contingency	10,000	25,000	25,000	25,000	25,000
Billing Maintenance Contract	-	-	-	-	-
Fiber & Network Maintenance	16,000	55,000	55,000	55,000	55,000
Vendor Maintenance Contracts	-	-	-	-	-
Legal and Lobby Fees	50,000	10,000	10,000	10,000	10,000
Planning	-	-	-	-	-
Consulting	50,000	10,000	10,000	10,000	10,000
Marketing	-	-	-	-	-
Education and Training	4,000	7,000	7,000	7,000	7,000
Customer Handholding	-	-	-	-	-
Customer Billing (Unit)	-	-	-	-	-
Allowance for Bad Debts	-	-	-	-	-
Churn (acquisition costs)	-	-	-	-	-
Pole Attachment Expense	-	-	-	-	-
Internet	-	-	-	-	-
Sub-Total	\$169,000	\$194,000	\$194,000	\$194,000	\$194,000
Labor Expenses	<u>\$204,750</u>	<u>\$355,250</u>	<u>\$355,250</u>	<u>\$355,250</u>	<u>\$355,250</u>
Sub-Total	<u>\$204,750</u>	<u>\$355,250</u>	<u>\$355,250</u>	<u>\$355,250</u>	<u>\$355,250</u>
Total Expenses	<u>\$373,750</u>	<u>\$549,250</u>	<u>\$549,250</u>	<u>\$549,250</u>	<u>\$549,250</u>

7.4.4 Revenue

The base case scenario assumes that the City’s private partner will pay a fee of \$40 per passing per month, with no upfront or balloon payments. Based on an assumption that the City will deploy a ubiquitous FTTP network in the business park. The financial model applies the fee to all business premises in the business park. The current model keeps that \$40 per passing fee constant, although the City and its partner could negotiate periodic increases.

Operating and maintenance expenses account for approximately 47 percent of the City’s total annual costs. (P&I payment on debt is the remaining amount.) At a minimum, 47-percent of the per-passing fee should be increased by a CPI each year.

In the scenarios below, we show the sensitivity of the monthly fee.

7.4.5 Dark FTTP Fee Sensitivity

This section demonstrates the sensitivity of the financial projections to changes in per passing fee. We show the financial projects for fees at \$35, \$30, and \$25 per passing per month.

Table 37, below, shows financial analysis for a \$35 per month passing fee. In this model, the unrestricted cash balance shows a loss of approximately \$435,000 by year five, and more than \$2.6 million by year 20.

Compared to our base model of a \$40 per-month passing fee, the decreased fee results in an unrestricted cash balance difference of \$760 at year one, growing to an approximately \$445,000 difference by year 5, and ultimately a difference of over \$2.7 million by year 20.

Table 37: Dark FTTP Model Financial Analysis - \$35 Per Month Passing Fee

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$5,380	\$1,073,520	\$1,073,520	\$1,073,520	\$1,073,520
Total Cash Expenses	(373,750)	(549,250)	(549,250)	(549,250)	(549,250)
Depreciation	(119,000)	(311,000)	(311,000)	(311,000)	(311,000)
Interest Expense	(130,000)	(351,000)	(275,000)	(176,000)	(51,000)
Taxes	-	-	-	-	-
Net Income	\$ (617,370)	\$ (137,730)	\$ (61,730)	\$37,270	\$162,270

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (7,370)	\$ (435,160)	\$ (1,186,810)	\$ (1,938,460)	\$ (2,689,110)
Depreciation Reserve	-	141,000	185,000	229,000	273,000
Interest Reserve	130,000	-	-	-	-
Debt Service Reserve	<u>130,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>	<u>380,000</u>
Total Cash Balance	\$252,630	\$85,840	\$ (621,810)	\$ (1,329,460)	\$ (2,036,110)

As the per-passing fee decreases, unrestricted cash balance and net income also decrease.

Table 38, below, shows financial projections for a \$30 per month passing fee. Were the City to charge this fee, we project an unrestricted cash balance deficit of \$8,140 at year one, and that deficit increasing to over \$5 million by year 20.

In comparison to our base model of a \$40 per month passing fee, a \$30 fee results in an unrestricted cash balance difference of \$1,530 at year 1, growing to a difference of nearly \$5.5 million by year 20.

Table 38: Dark FTTP Model Financial Analysis - \$30 Per Month Passing Fee

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$4,610	\$920,160	\$920,160	\$920,160	\$920,160
Total Cash Expenses	(373,750)	(549,250)	(549,250)	(549,250)	(549,250)
Depreciation	(119,000)	(311,000)	(311,000)	(311,000)	(311,000)
Interest Expense	(130,000)	(351,000)	(275,000)	(176,000)	(51,000)
Taxes	-	-	-	-	-
Net Income	\$ (618,140)	\$ (291,090)	\$ (215,090)	\$ (116,090)	\$ 8,910

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (8,140)	\$ (880,680)	\$ (2,399,130)	\$ (3,917,580)	\$ (5,435,030)
Depreciation Reserve	-	141,000	185,000	229,000	273,000
Interest Reserve	130,000	-	-	-	-
Debt Service Reserve	130,000	380,000	380,000	380,000	380,000
Total Cash Balance	\$251,860	\$ (359,680)	\$ (1,834,130)	\$ (3,308,580)	\$ (4,782,030)

Table 39, below, shows our projections for the lowest passing fee of \$25 per month. In this projection, the unrestricted cash balance begins as a deficit of \$8,910, with that deficit growing to \$8.1 million by year twenty. Further, this per-passing fee is unable to generate positive net income over the twenty-year projection.

In comparison to our base model, a \$25 per month passing fee results in a difference of \$2,300 at year one, \$1.3 million difference by year five, and ultimately an \$8.2 million difference by year 20.

Table 39: Dark FTTP Model Financial Analysis - \$25 Per Month Passing Fee

Income Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Total Revenues	\$3,840	\$766,800	\$766,800	\$766,800	\$766,800
Total Cash Expenses	(373,750)	(549,250)	(549,250)	(549,250)	(549,250)
Depreciation	(119,000)	(311,000)	(311,000)	(311,000)	(311,000)
Interest Expense	(130,000)	(351,000)	(275,000)	(176,000)	(51,000)
Taxes	-	-	-	-	-
Net Income	\$ (618,910)	\$ (444,450)	\$ (368,450)	\$ (269,450)	\$ (144,450)

Cash Flow Statement	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ (8,910)	\$ (1,326,190)	\$ (3,611,440)	\$ (5,896,690)	\$ (8,180,940)
Depreciation Reserve	-	141,000	185,000	229,000	273,000
Interest Reserve	130,000	-	-	-	-
Debt Service Reserve	130,000	380,000	380,000	380,000	380,000
Total Cash Balance	\$251,090	\$ (805,190)	\$ (3,046,440)	\$ (5,287,690)	\$ (7,527,940)

Appendix A: Glossary of Terms

The descriptions in our FTTP design and cost estimate analysis are highly technical and make use of several acronyms that can be confusing, especially to a non-technical audience. While we try to define each acronym the first time it appears in the text, we also believe that a glossary can be a useful tool to navigate this document. This section outlines most of the acronyms that appear in this analysis.

AE – Active Ethernet; a technology that provides a symmetrical (upload/download) Ethernet service and does not share optical wavelengths with other users. For subscribers that receive Active Ethernet service—typically business customers that request a premium service or require greater bandwidth—a single dedicated fiber goes directly to the subscriber premises with no optical splitting.

CPE – Customer premises equipment; the electronic equipment installed at a subscriber’s home or business.

Distribution Fiber – The fiber in an FTTP network that connects the hub sites to the fiber distribution cabinets (see below).

Drop – The fiber connection from an optical tap in the ROW to the customer premises.

FDC – Fiber distribution cabinet; houses the fiber connections between the distribution fiber and the access fiber. FDCs, which can also house network electronics and optical splitters, can sit on a curb, be mounted on a pole, or reside in a building.

Access Fiber – The fiber in an FTTP network that goes from the FDCs to the optical taps that are located outside of homes and businesses in the rights-of-way.

FTTP – Fiber-to-the-premises; a network architecture in which fiber optics are used to provide broadband services all the way to each subscriber’s premises.

GPON – Gigabit passive optical network; the most commonly provisioned FTTP service—used, for example, by Verizon (in its FiOS systems), Google Fiber, and Chattanooga Electric Power Board (EPB). GPON uses passive optical splitting, which is performed inside FDCs, to connect fiber from the Optical Line Terminals (OLTs) to multiple customer premises over a single GPON port.

Hub – At the hub, optical splitting is used to distribute network services deeper into the community, enabling eventual FTTP connections.

IP – Internet Protocol; the method by which computers share data on the Internet.

LEC – Local Exchange Carrier; a public telephone company that provides service to a local or regional area.

MDU – Multi-dwelling unit (i.e., an apartment or office building).

OLT – Optical Line Terminal; the upstream connection point (to the provider core network) for subscribers. The choice of an optical interface installed in the OLT determines whether the network provisions shared access (one fiber split among multiple subscribers in a GPON architecture) or dedicated Active Ethernet access (one port for one subscriber).

OSP – Outside plant; the physical portion of a network (also called “layer 1”) that is constructed on utility poles (aerial) or in conduit (underground).

OSS – Operational Support Systems (OSS); includes a provider’s provisioning platforms, fault and performance management systems, remote access, and other operational support systems for FTTP operations. OSS is housed in a network’s core locations.

OTT – Over-the-top; content, such as voice or video service, that is delivered over a data connection.

Passing – A potential customer address, typically an individual home or business. Note that, in this report, the passing count includes individual single-unit buildings and units in small multi-business buildings as single passings. It treats larger multi-tenant businesses as single passings. In the Industrial Corridor, we estimated 2,556 passings that serve 5,100 businesses.

Peering – An interconnection between two service providers, or a service provider and an application provider (Netflix, Dropbox, etc.) to facilitate faster, less-expensive connections.

PON – Passive optical network; uses passive optical splitting, which is performed inside FDCs, to connect fiber from the OLTs to multiple customer premises over a single PON port.

POP – Point of presence; a physical location where network switches, routers, and servers are housed. POPs frequently offer appropriate power, cooling, and security resources for network equipment, peering (see above) and at times enable connections to multiple ISPs.

POTS – “Plain old telephone service;” delivered over the PSTN.

PSTN – Public switched telephone network; the copper-wire telephone networks that connect landline phones.

QoS – Quality of service; a network’s performance as measured on a number of attributes.

ROW – Right-of-way; land reserved for the public good such as utility construction. ROW typically abuts public roadways.

VoIP – Voice over Internet Protocol; telephone service that is delivered over a data connection.

Appendix B: Assessment of Local Broadband Market

This Appendix is attached as a separate PDF file.

Appendix C: Retail Financial Model (spreadsheet)

This Appendix is attached as a separate Microsoft Excel file.

Appendix D: Wholesale Financial Model (spreadsheet)

This Appendix is attached as a separate Microsoft Excel file.

Appendix E: Dark FTTP Financial Model (spreadsheet)

This Appendix is attached as a separate Microsoft Excel file.

Appendix F: Online Business Survey Questions

This appendix is attached as a separate PDF file.

Appendix G: Online Business Survey Results

To understand the potential market demand for fiber connectivity and related services among Hayward businesses, CTC conducted an online survey in summer 2016. At a high level, the survey showed that the respondents that completed the questionnaire are not overwhelmingly unhappy with their current speeds, and that there is a modest willingness to switch to a higher-speed service—but only if the price point is \$75 per month or less.

Most of the businesses indicated that price, reliability, and speed are important factors for them to consider as their connectivity needs evolve and they become increasingly dependent on cloud-based business solutions to support their operations.

Survey Methodology

The survey was sent out via e-mail on behalf of the City to approximately 2,600 businesses in July 2016. An online survey mechanism enabled completion of the survey questionnaires over the Internet. The survey was designed to collect a range of data to understand businesses' current use of data and Internet services; satisfaction with current service providers; and interest in new, higher-speed data and Internet service offerings.

The survey's e-mail distribution list was culled from data purchased from InfoUSA on approximately 900 businesses located in Hayward, in conjunction with email lists provided by the City and Chamber of Commerce. CTC worked with City staff to develop a set of questions for Hayward businesses, which were then entered into a survey instrument on SurveyMonkey, an online tool that allows for customization, and provides granular output of responses in various formats for analysis. The survey questionnaire is attached to this report as Appendix C.

50 recipients opted out of the survey; 18 emails were returned as undeliverable; and 1,545 emails were unopened. Of the 1,006 potential respondents that opened the email, 183 clicked through. There were 156 total responses through the email collector, which included the original email we sent through SurveyMonkey.

In the weeks following the initial SurveyMonkey email notification, the City sent a follow-up email outside the SurveyMonkey system, which contained a web link for potential respondents to access the survey. There were 103 responses collected through the web link, for a total of 259 responses all together. Of the approximately 2,600 email recipients, there were 259 respondents that filled out at least some portion of the survey.

While there were 259 responses to the survey, not every respondent completed the full survey, as respondents were able to skip questions and answer questions only partially. We designed the survey in this way to encourage respondents to answer questions for which they had a response, while not forcing them to attempt to answer questions they do not believe are

applicable to their business. Although this does not produce statistically valid results, it can provide insight into the business community's connectivity needs, their willingness to switch to a new provider, and what role they believe the City should play in an FTTP deployment.

Further, a secondary purpose of the survey was to identify potential businesses that would be willing to further discuss their connectivity needs, and their potential willingness to purchase services from the City. The final questions in the survey prompted willing respondents to provide specific information about their contact information and their willingness to speak in greater detail with City representatives about their connectivity needs. While 77 respondents listed their business' specific address, only 41 respondents indicated a willingness to be contacted further. CTC was able to reach 24 businesses for follow-up discussions.

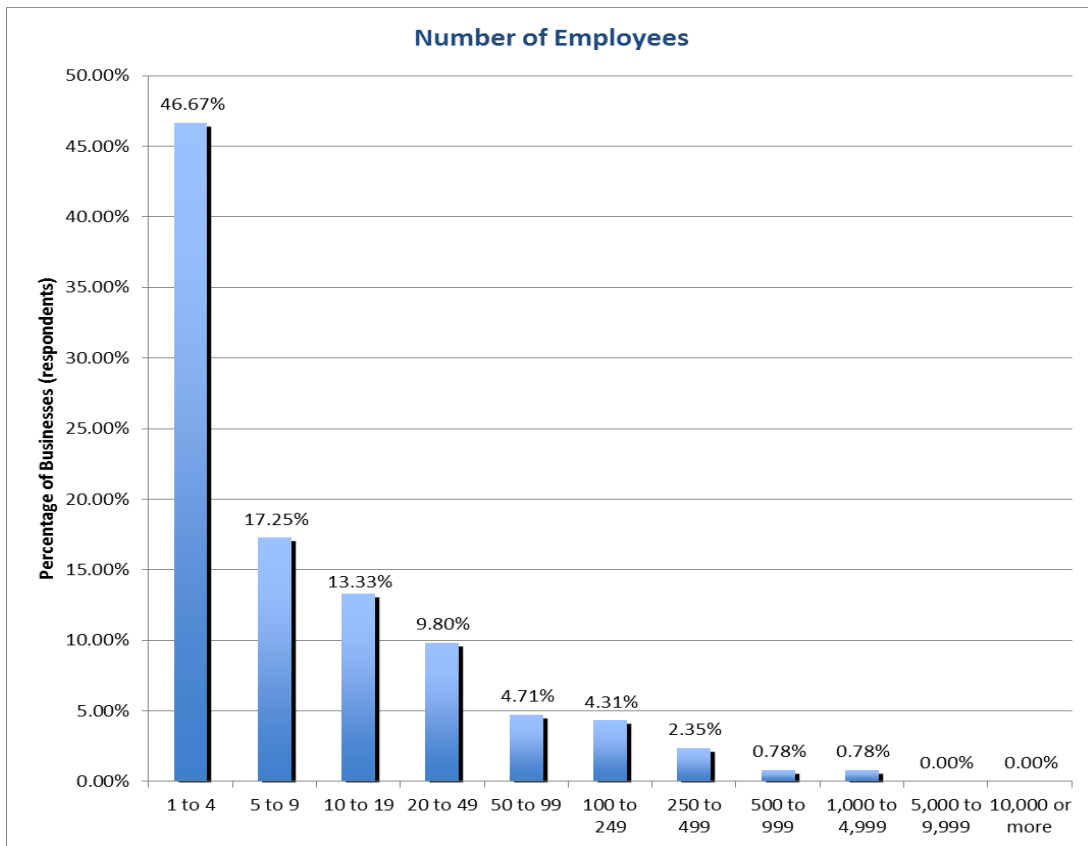
Online Survey Results

As we noted, the survey had some inherent limitations, and the respondents are not truly representative of a random selection of the population. Still, the City can potentially glean some valuable information from the businesses that chose to respond, caveats aside.

The Majority of Responses Were from Small-to-Medium Size Businesses

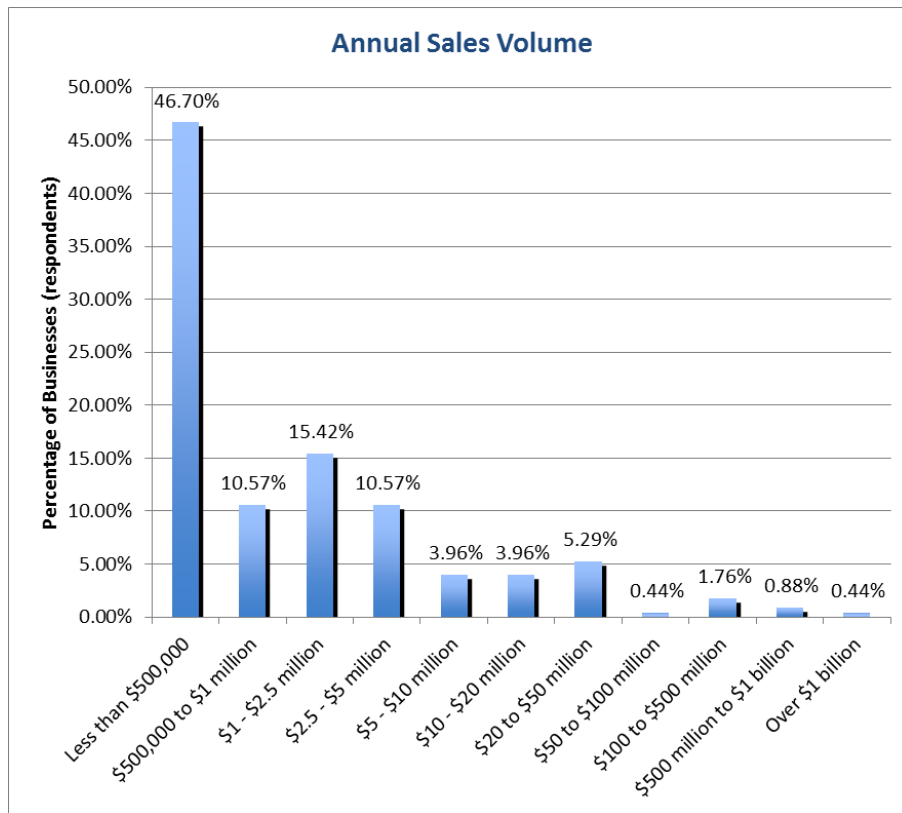
91 percent of the responses were from businesses with only one location. Nearly half the respondents to the business survey represented businesses with 1 to 4 employees, and more than three-quarters (approximately 77.25 percent) came from businesses with less than 20 employees. About 14.5 percent of responses were from businesses with 20 to 99 employees, and about 6.7 percent of responses were from businesses with 100 to 499 employees. Only about 1.5 percent of responses were from business with 500 or more employees. There were no responses from businesses with more than 5,000 employees. See Figure 12, below.

Figure 12: Respondents' Number of Employees (Based on 255 Responses)



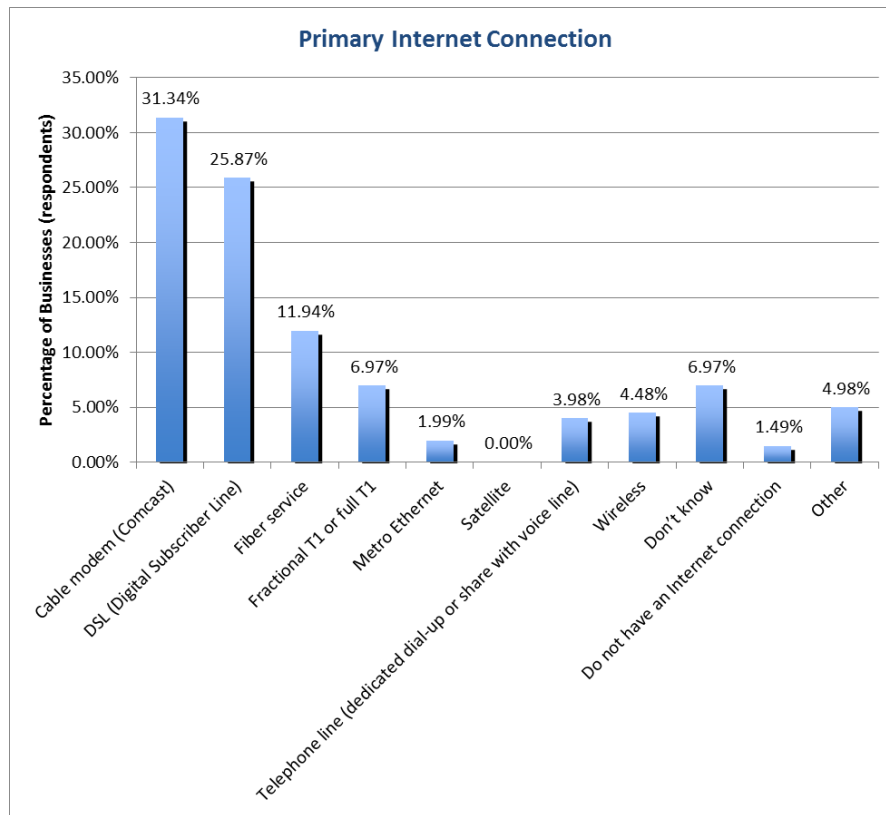
Nearly half of the responses were from businesses with a sales volume of less than \$500,000 per year. A majority of businesses (approximately 83.3 percent) represented had an annual sales volume of \$5 million or less. Only approximately 3.5 percent of respondents represented businesses with an annual sales volume of \$50 million or greater.

Figure 13: Respondents' Annual Sales Volume (Based on 227 Responses)



More than half of the respondents (approximately 57.2 percent) currently subscribe to either cable or DSL; nearly 12 percent of respondents are connected via fiber; and slightly less than 7 percent are connected to a fractional or full T1. See Figure 14, below.

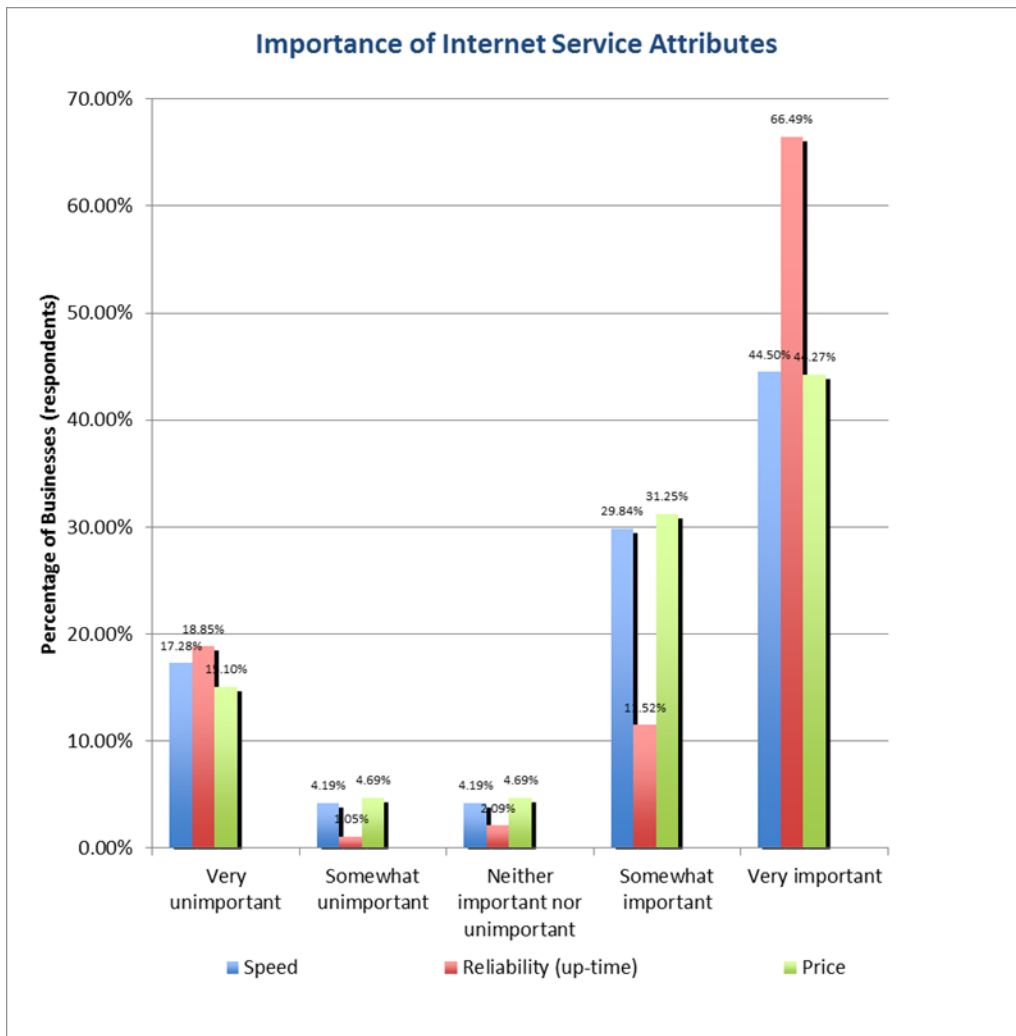
Figure 14: Business Respondents' Primary Internet Connection (Based on 201 Responses)



Nearly Half of Respondents Are Satisfied with Current Internet Speeds

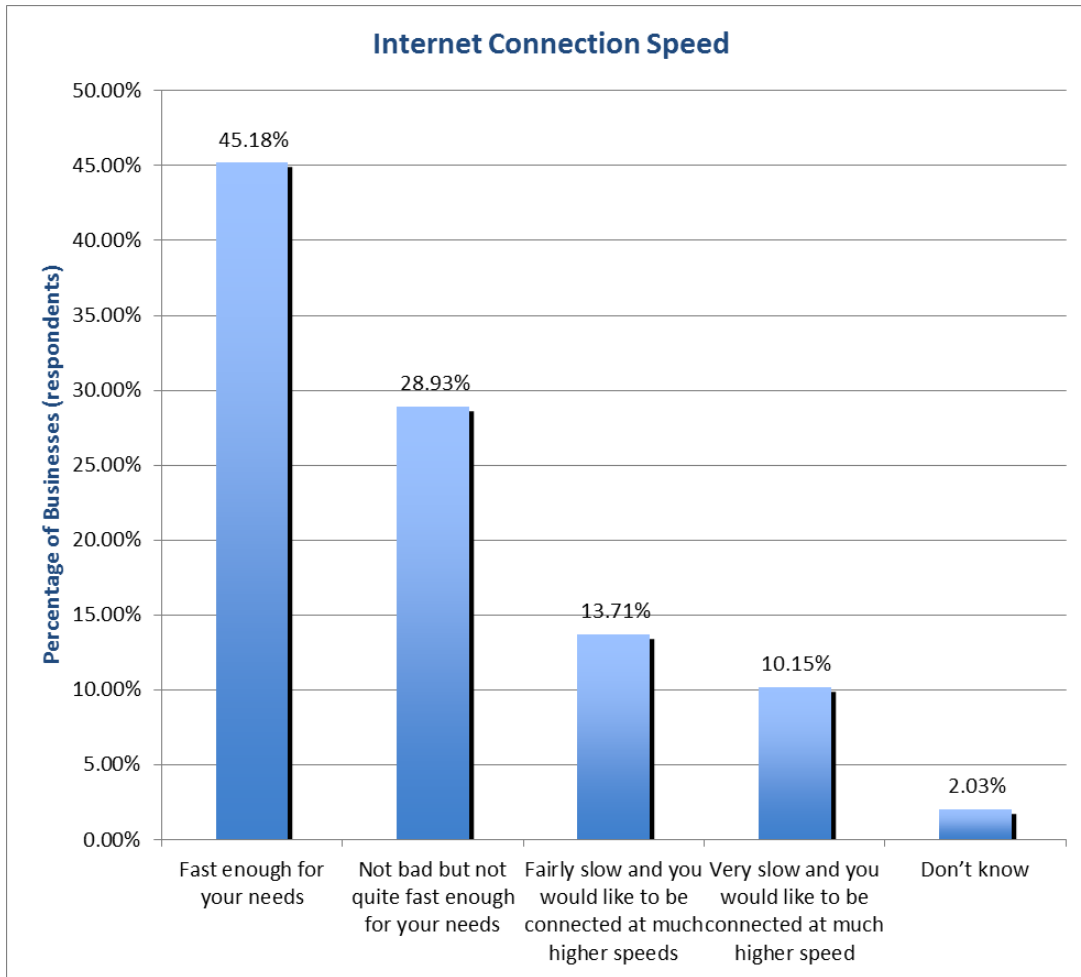
Price, Reliability, and Speed tend to be the most important factors that businesses consider when evaluating their connectivity options, and when considering the possibility of switching providers. Based on the 191 full responses to the question that prompted respondents to indicate the importance of various aspects of their business Internet service, it appears that reliability is most important, followed by price, and speed. Approximately 78 percent of respondents indicated that reliability was somewhat or very important; approximately 76 percent indicated price was somewhat or very important; and approximately 74 percent of respondents indicated that speed was somewhat or very important. See Figure 15, below.

Figure 15: Importance of Price, Reliability, and Speed (Based on 191 Responses)



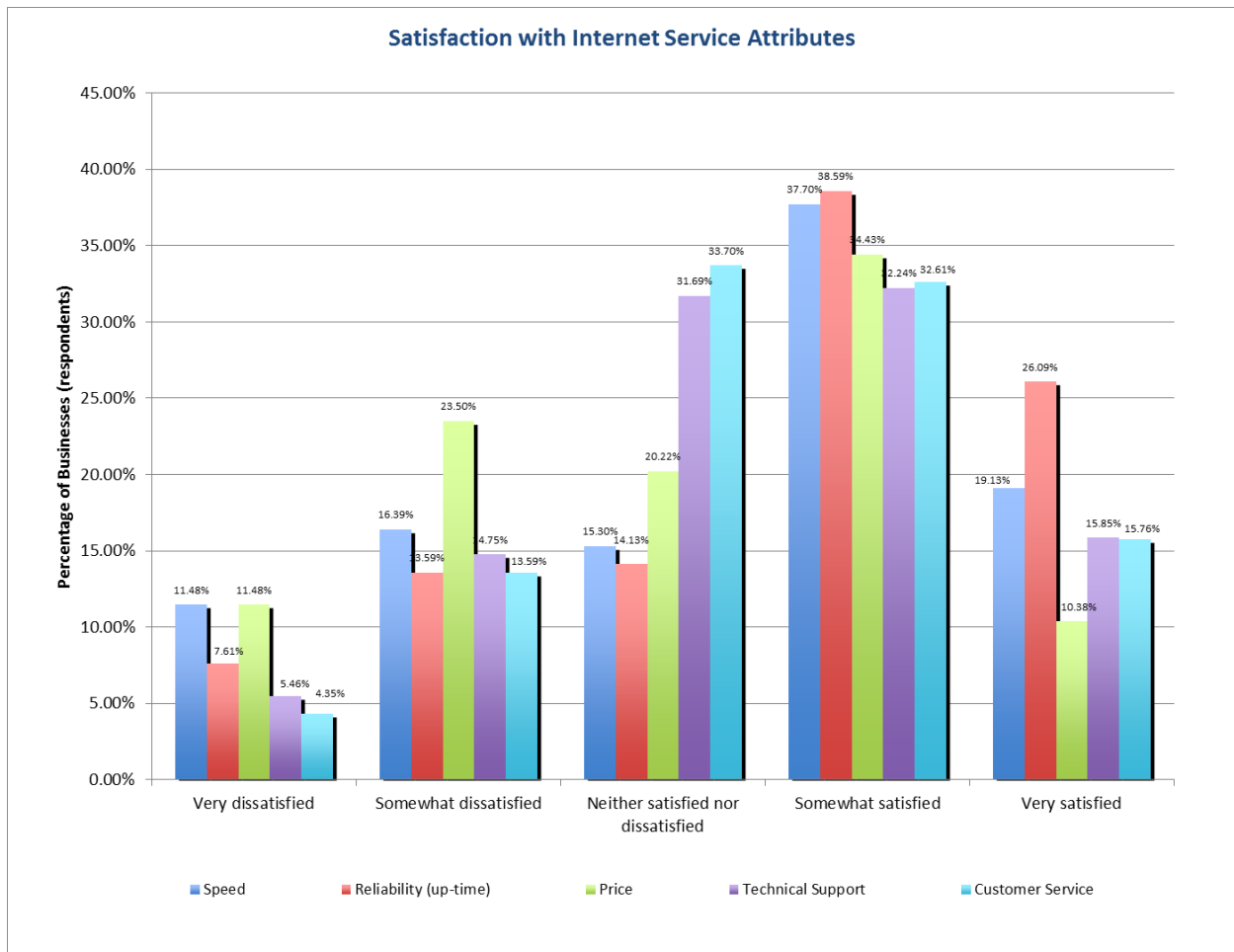
While speed appears to be an important attribute to the respondents, nearly half of the 197 respondents that fully answered the question indicated that their current Internet speed was fast enough for their needs. Approximately 29 percent of respondents indicated that their current speed was not bad, but not quite fast enough for their needs. Only a little over 10 percent of respondents indicated that their current Internet speed was very slow, and approximately 13.7 percent indicated it was fairly slow. That group—approximately 23.9 percent of respondents to the question—indicated that they would like to be connected at higher speeds.

Figure 16: Respondents' Satisfaction With Current Internet Speeds (Based on 197 Responses)



It appears that most respondents are not particularly unhappy with various attributes of their current service (see Figure 17, below). This does not mean that respondents would not consider alternative service from a different provider, but it does indicate that the City would have to find ways to differentiate itself to stand out among its competitors—particularly as a retail service provider.

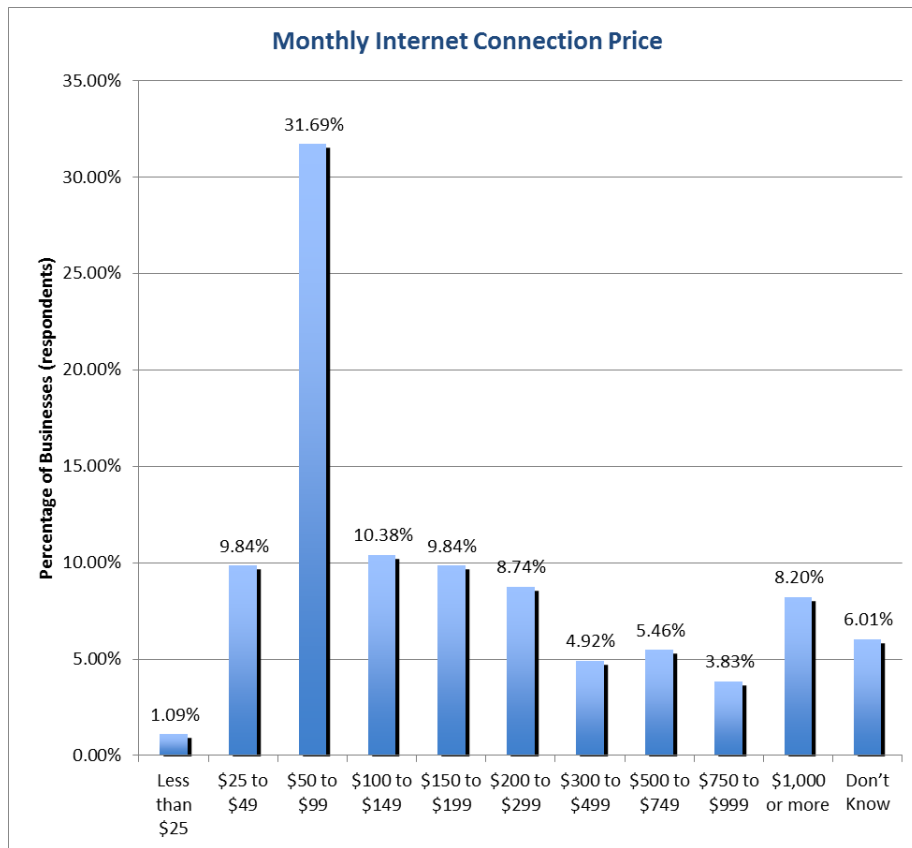
Figure 17: Satisfaction with Current Internet Service Attributes (Based on 192 Responses)



Pricing Sensitivity and Willingness to Switch Service Providers

Almost 60 percent of respondents indicated that they currently pay \$100 or more per month for their business Internet connection. Just over 10 percent of respondents indicated that they currently pay \$49 or less per month for their business Internet connection. Nearly 32 percent of respondents indicated that they currently pay \$50 to \$99 per month. See Figure 18, below.

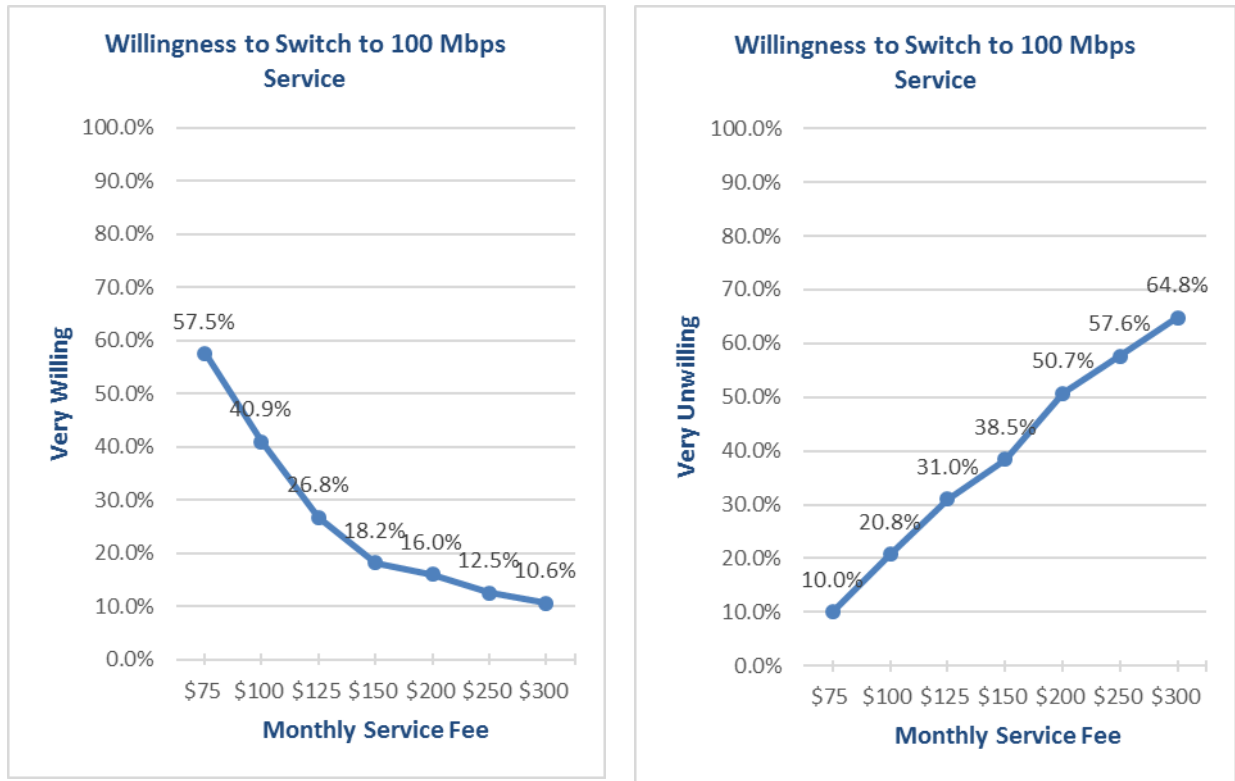
Figure 18: Monthly Cost for Internet Services (Based on 183 Responses)



Although most respondents appear to pay more than \$75 per month, or somewhere near that price point, there did not appear to be a significant willingness to switch to much higher speeds. Nearly half of respondents (approximately 45 percent) indicated that they were somewhat or very satisfied with the price of their current services—based on the 192 respondents that fully answered the question. Still, only approximately 35 percent indicated that they were very or somewhat *dissatisfied* with the price of their current services.

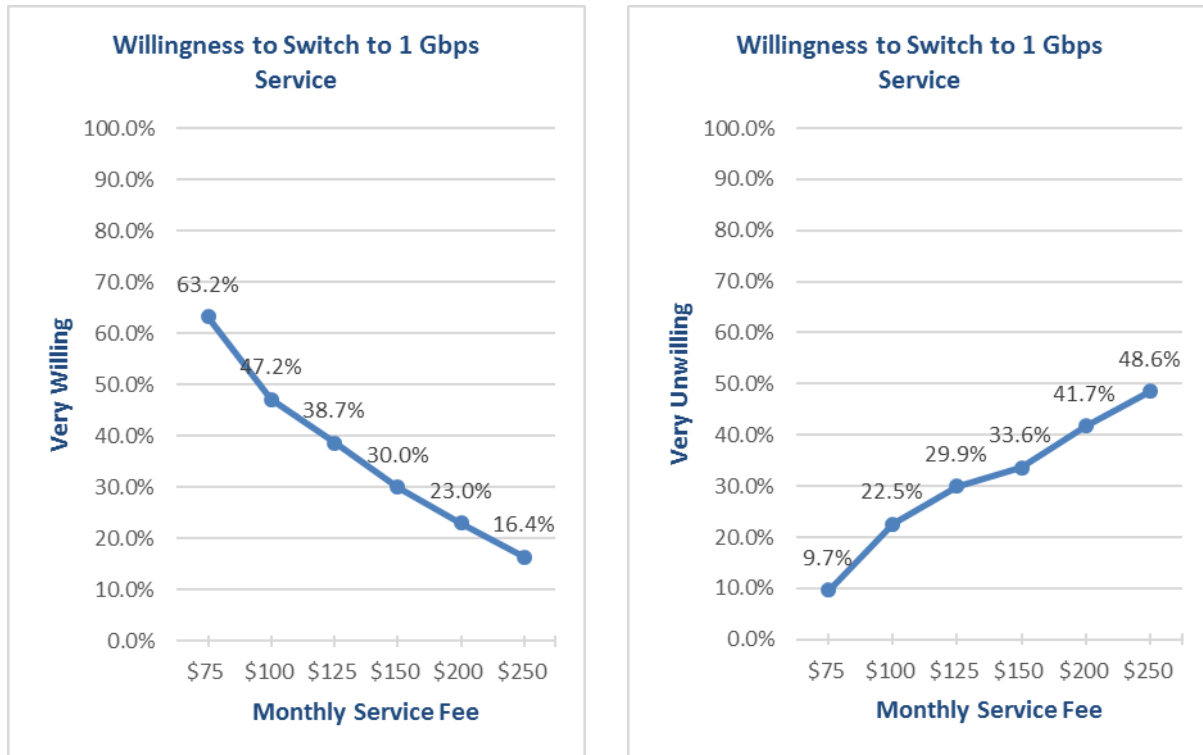
Just under 60 percent of respondents indicated that they would be “very willing” to switch to a 100 Mbps service for \$75 per month, and only 10 percent indicated they would be “very unwilling” to switch to 100 Mbps service for \$75 per month. The respondents appear to be particularly sensitive to price

Figure 19: Respondents’ Willingness to Switch to 100 Mbps Service at Various Price Points (Based on 142 Responses)



Approximately 63 percent of respondents to the survey indicated they would be “very willing” to switch to 1 Gbps service for \$75 per month, which is a slightly higher willingness than those respondents that indicated they would switch to 100 Mbps service at the same price point. Respondents seem slightly more likely to switch service for higher speeds.

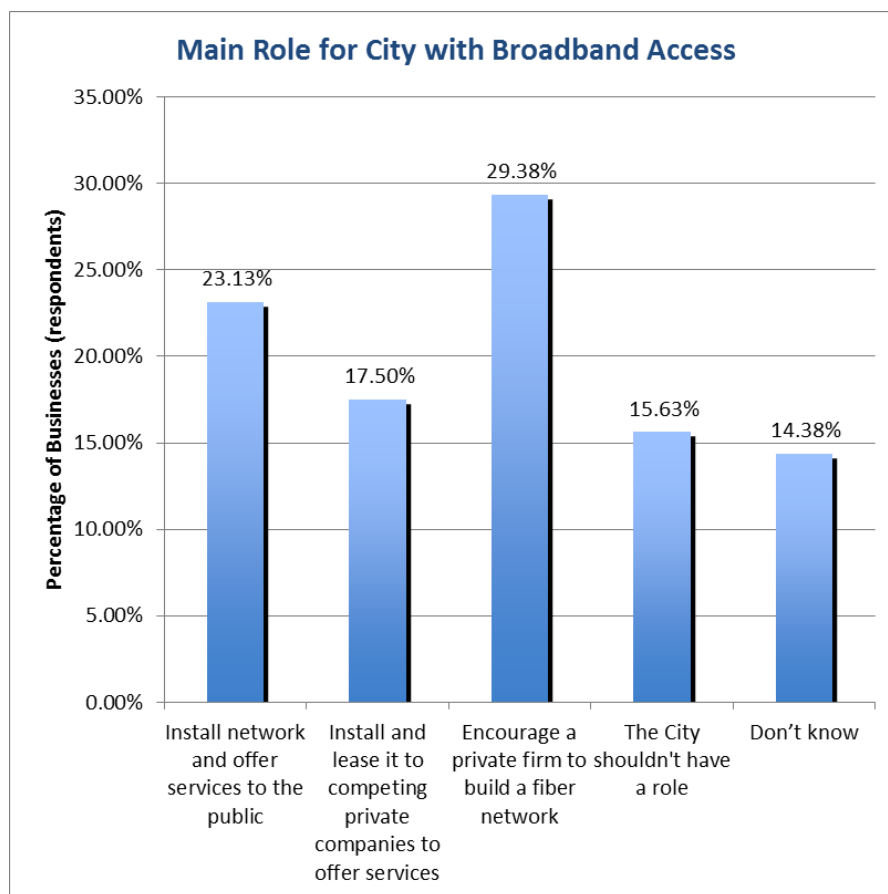
Figure 20: Respondents' Willingness to Switch to 1 Gbps Service at Various Price Points (Based on 137 Responses)



The City's Role

One of the questions the survey asked all respondents was what role they believe the City should play in facilitating broadband access in Hayward. Only approximately 15.6 percent of the 160 responses indicate a belief that the City should have no role. Just over 40 percent of respondents indicate that the City should either install a network and offer services to the public or install a network and lease it to competing private companies to offer services. Approximately 29.4 percent of respondents believe the City should encourage a private firm to build a fiber network in Hayward. Approximately 14.4 percent of respondents do not know what role the City should play. See Figure 21, Below.

Figure 21: Main Role for the City With Respect to Broadband Access (Based on 160 Responses)



Follow-Up Interviews with Select Businesses

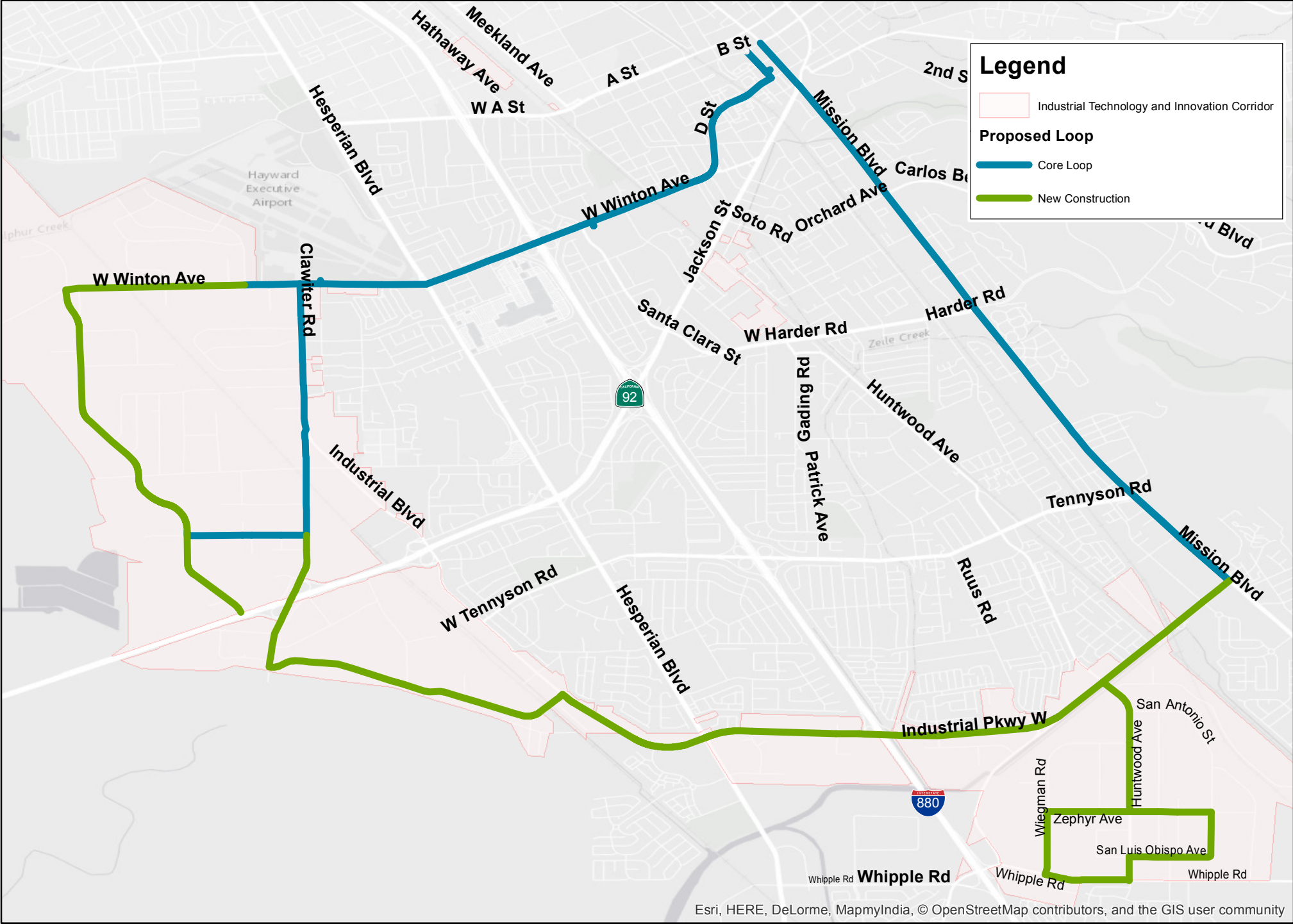
As we noted, approximately 40 businesses indicated that they could be contacted further for additional discussions. We managed to reach 24 unique businesses for follow-up conversations to gather these businesses’ insights. Most of these respondents believe that the City has some role in at least providing infrastructure to help manage the connectivity challenges in the market today, and especially in the future. Only one respondent indicated the City should become a provider, while only three respondents were on the opposite end of the spectrum and claimed the City’s only role should be to expedite permits.

In general, the respondents that we reached indicated that they believe connectivity is critical for their business operations, and their dependency on it is growing. This is especially true as their business operations grow increasingly dependent on cloud computing. Most respondents indicated that the current market does not meet their needs, and that the speed and reliability of currently-available services is especially unlikely to meet their future needs as their businesses grow and evolve.

As is the case with many small- to medium-size businesses in other markets, connectivity options are limited to only DSL or cable for many of the respondents to the business survey. There is a shared perception that competition is lacking in the Hayward business market, and that it must be increased in order to drive better choice for businesses. Further, choices are limited for alternative services, or for back-up options to help offset the speed and reliability challenges these businesses face with their primary providers.

While some of the respondents could purchase cable modem service through Comcast, it tends to be much more expensive than AT&T's DSL service, and the speeds and reliability do not necessarily justify the increased cost. Still, satisfaction related to reliability and speed seems to be marginally higher with Comcast than with AT&T. Most of these respondents claimed that the customer service they receive from their current providers is not good, and they would prefer more positive experiences when seeking support.

High-Speed Hayward Fiber Optic Network





CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-545

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Development Services

SUBJECT

Adoption of a Resolution Approving Updates to the FY19 Master Fee Schedule

RECOMMENDATION

That Council adopts the attached resolution amending the City's FY19 Master Fee Schedule to update four fees within the current Master Fee Schedule for further clarity.

SUMMARY

Since the March 27, 2018 Council approval of Resolution 18-50 adopting the City's FY19 Master Fee Schedule, staff identified four fees to be updated for further clarity and ease of use. One update relates to a Code Enforcement fee and three to Building fees. The recommended updates are corrections to typos or omissions of these fees and result in no fiscal impact. Staff requests Council adoption of the attached resolution amending the City's Master Fee Schedule.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	Proposed updates



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Development Services

SUBJECT Adoption of a Resolution Approving an Update to the FY19 Master Fee Schedule

RECOMMENDATION

That Council adopts the attached resolution amending the City's FY19 Master Fee Schedule to update four fees within the current Master Fee Schedule for further clarity.

SUMMARY

Since the March 27, 2018 Council approval of Resolution 18-50 adopting the City's FY19 Master Fee Schedule, staff identified four fees to be updated for further clarity and ease of use. One update relates to a Code Enforcement fee and three to Building fees. The recommended updates are corrections to typos or omissions of these fees and result in no fiscal impact. Staff requests Council adoption of the attached resolution amending the City's Master Fee Schedule.

BACKGROUND

Annually, the Finance Department coordinates the review of the City's Master Fee Schedule to identify fees for services provided by the City. Generally, these fees are administered with the intent of full recovery of the cost of delivering those services. On March 27, 2018, Council approved Resolution 18-050, adopting the updates to the City's FY19 Master Fee Schedule, effective July 1, 2018.

DISCUSSION

The following are the requested updates by division:

Building Division

To avoid confusion and to enhance customer service, staff is proposing the following changes to the Building Fee section:

1. International Code Council Valuation Table (page 9 of the Master Fee Schedule).

The City of Hayward, along with most Cities in California, adopts the International Code Council's (ICC) standard construction valuation tables to set a baseline for the

stated cost of any building project. These standard values are expressed as a dollar cost per square foot of construction along with the building use and the type of construction materials used. The International Code Council updates these on an annual basis to adjust for inflation and other factors. When staff drafted the proposed updates for FY19, the first two columns were inadvertently omitted from the ICC table on the building permit fees calculation worksheet. The types of projects these columns covered included concrete construction methods that were historically rare in Hayward. Recently, however, these types of construction methods are being used more frequently as the density of the city increases. Staff is recommending reinstating the columns that were omitted during the fee schedule adoption. Additionally, there were two rows that were not included on the ICC table. These rows included the fee for nightclubs and for restrained institutional uses. Staff is proposing these fees be reinstated back into the ICC table for clarity. Reinstating the omitted information from the valuation table does not impose any cost impact to the City or to permit applicants and will help staff and the public to better calculate the valuation for their projects.

The proposed updates for the ICC table are highlighted on page 1 of Attachment III.

2. Plot Plan Fee (page 12 of the Master Fee Schedule).

In addition to the plan review fees for the “masters” (the prototype buildings that are copied throughout a development), there is a review by various divisions for the “plot plan” which shows an enlarged footprint of the copied buildings on their sites. This review is to check setbacks, landscaping, drainage, parcel and address information. The plot plan review fees for both Building and Planning were approved within the FY19 Master Fee Schedule, and are listed on page 12; however, staff recommends that the fee also be listed on the worksheet on page 9 that is used to guide the applicants through the applicable fees for their project.

The proposed update is highlighted on page 3 of Attachment III.

3. Clarify how fees are charged for addresses (page 12 of the Master Fee Schedule).

The Address Assignment fee was not updated from FY18, and the charges will remain the same for FY19. The fee for a new address is \$220.50 and the fee for Accessory Dwelling Units would be \$73.50. The current description on item 6 (a) states “Single Address or First in a Series.” Staff recommends that the language be updated to state, “New Address”, in order to simplify and provide clarification to the applicant.

The proposed update is highlighted on page 4 of Attachment III.

Code Enforcement Division

The fees for the Development Services Department are included on pages 9-22 of the Master Fee Schedule for the Building, Planning and Code Enforcement divisions. Some of these fees

overlap divisions, and therefore are publicized in multiple locations within the Master Fee Schedule.

The Building Violation fee is assessed on all unpermitted construction and was increased as of July 1, 2018 from 200% to 205% of the permit fee. This fee is in addition to permit fees and is also reflected in the Code Enforcement Division's fee schedule and is based on actual staff time. The fee was correctly updated on page 16 of the Master Fee Schedule within the Building Fee section; however, the percentage published on page 21 of the Master Fee Schedule reflected the old rate of 200% of permit fees. This change is being made to make the rate consistent throughout the document.

This proposed update is highlighted on page 8 of Attachment III.

FISCAL IMPACT

The recommended updates are corrections to typos or omissions of the fees that were adopted on March 27, 2018 and therefore will not have an impact on the General Fund.

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

NEXT STEPS

If Council adopts the recommended updates, the Director of Finance will make the corrections to the Master Fee Schedule.

Prepared by: Jade Kim, Management Analyst II

Recommended by: Laura Simpson, Director of Development Services

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-_____

Introduced by Council Member _____

ADOPTION OF A RESOLUTION UPDATING THE FY19 MASTER FEE SCHEDULE

WHEREAS, On March 27, 2018 Council adopted Resolution No. 18-050, approving the FY19 Master Fee Schedule; and

WHEREAS, Upon further review and practical application, it was discovered that there were some typos or omissions that require corrections as well as minor clarifications for fees that have already been adopted; and

WHEREAS, The requested corrections will not further increase the already adopted fees, and will not have an adverse impact to the City or the public.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HAYWARD, that the following changes to the FY19 Master Fee Schedule are hereby adopted:

- 1) Update Building Violation Fee on page 21 from 200% to 205%;
- 2) Update the ICC Valuation Table on the Building Permit Fees worksheet on page 9;
- 3) List the Building Plot Plan Review Fee and Planning Plot Plan Review Fee on the Building Permit Fees worksheet on page 9;
- 4) Update the description for Address Assignment, item 6a, on page 12 to read "New Address".

IN COUNCIL, HAYWARD, CALIFORNIA, _____

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
 MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
 City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward

A. Building Permit Fees

BUILDING PERMIT FEES CALCULATED BY VALUATION
 This includes all new buildings, facilities, additions, tenant improvements and residential remodels

- Valuation is defined as the fair market value of materials and labor for the work.
- Valuation shall be the higher of the stated valuation or the figure from the current International Code Council valuation table below.
- The current ICC Valuation data table below is adjusted with a regional construction cost modifier for the San Francisco Bay Area of 16%*. *Source: The local modifier is 1.16 times the cost per square foot as published in the Building Standards Journal, April 2002 edition.
- The valuation for tenant improvements, residential remodels or other projects that do not involve new square footage, shall be a minimum of **60%** of the cost per square foot in the valuation table below.

International Building Code Group <small>Building Division staff will help determine the valuation for occupancies or construction types not listed in this table. The values below are based on the February 2015 ICC Building Valuation Data with the Building Standards Journal 16% local cost modifier included.</small>	Construction Type and Minimum Cost Per Square Foot							
	IA	IB	IIA	IIB	IIIA	IIIB	VA	VB
A-1 Assembly, theaters, with stage	265.67	256.95	250.68	240.19	225.83	219.32	206.42	198.60
A-1 Assembly, theaters, without stage	243.45	234.73	228.45	217.96	203.72	197.21	184.31	176.49
A-2 Assembly, nightclubs	205.19	200.51	200.51	194.96	176.30	171.42	159.70	154.27
A-2 Assembly, restaurants, bars, banquet halls	205.19	199.35	192.64	186.17	173.98	170.26	157.39	153.11
A-3 Assembly, churches	245.86	237.14	230.86	220.38	206.42	199.91	187.02	179.20
A-3 Assembly, general, community halls, libraries	205.18	199.46	189.02	179.70	164.41	159.06	145.00	138.34
A-4 Assembly, arenas	242.29	233.57	226.13	216.80	201.40	196.05	181.99	175.33
B Business	212.15	204.36	197.57	187.78	171.16	164.72	150.21	143.56
E Educational	223.06	215.15	208.97	199.66	186.44	176.96	162.93	157.97
F-1 Factory and industrial, moderate hazard	126.42	120.63	113.48	109.24	97.87	93.45	80.62	75.91
F-2 Factory and industrial, low hazard	125.26	119.47	113.48	108.08	97.87	92.29	80.62	74.75
H-1 High Hazard, explosives	118.33	112.54	106.56	101.15	91.18	85.60	73.93	N/A
H-2 H-3 H-4 High Hazard	118.33	112.54	106.56	101.15	91.18	85.60	73.93	68.06
H-5 (HPM) semiconductor fabrication	212.15	204.36	197.57	187.78	171.16	164.72	150.21	143.56
I-1 Institutional, supervised environment	211.73	204.02	198.33	188.77	174.64	169.92	156.62	151.64
I-2 Institutional, hospitals	357.87	350.07	343.28	333.50	315.69	N/A	294.74	N/A
I-2 Institutional, nursing homes	247.74	239.94	233.15	223.37	207.90	N/A	186.95	N/A
I-3 Institutional, restrained	241.71	233.93	227.13	217.35	202.47	194.86	181.52	172.54
I-4 Institutional, day care facilities	211.73	204.02	198.33	188.77	174.64	169.92	156.62	151.64
M Mercantile	153.83	147.98	141.28	134.80	123.37	119.65	106.78	102.50
R-1 Residential, hotels	213.57	205.85	200.16	190.60	176.76	172.04	158.75	153.76
R-2 Residential, multiple family	179.08	171.37	165.67	156.11	142.97	138.25	124.96	119.97
R-3 Residential, one- and two-family	166.95	162.36	158.35	154.08	148.42	144.55	138.89	130.68
R-4 Residential, care	211.73	204.02	198.33	188.77	174.64	169.92	156.62	151.64
S-1 Storage, moderate hazard	117.17	111.38	104.24	99.99	88.86	84.44	71.61	66.90
S-2 Storage, low hazard	116.01	110.22	104.24	98.83	88.86	83.28	71.61	65.74
U Utility, miscellaneous	90.27	85.23	80.09	76.01	68.70	64.16	54.32	51.77

BUILDING PERMIT FEES CALCULATED BY VALUATION

This includes all new buildings, facilities, additions, tenant improvements and residential remodels

**All sub-permits (plumbing, mechanical and electrical) are included in the plan check and inspection fees for valuation based projects.*

- Once the valuation for the project is established, use the table below to determine the Building Inspection Fee. Several other fees are based on the Building Inspection Fee and this is outlined on the next page.

TOTAL VALUATION (Materials and Labor)	BUILDING INSPECTION FEE
\$1 to \$500	\$29.77
\$501 to \$2000	\$29.77 for the first \$500 plus \$3.87 for each additional \$100 or fraction thereof, to and including \$2000
\$2,001 to \$25,000	\$87.82 for the first \$2000 plus \$17.74 for each additional \$1000 or fraction thereof, to and including \$25,000
\$25,001 to \$50,000	\$495.68 for the first \$25,000 plus \$12.80 for each additional \$1000 or fraction thereof, to and including \$50,000
\$50,001 to \$100,000	\$815.70 for the first \$50,000 plus \$8.87 for each additional \$1000 or fraction thereof, to and including \$100,000
\$100,001 to \$500,000	\$1259.15 for the first \$100,000 plus \$7.09 for each additional \$1000 or fraction thereof, to and including \$500,000
\$500,001 to \$1,000,000	\$4097.18 for the first \$500,000 plus \$6.02 for each additional \$1000 or fraction thereof, to and including \$1,000,000
\$1,000,001 and up	\$7109.14 for the first \$1,000,000 plus \$4.00 for each additional \$1000 or fraction thereof

BUILDING PERMIT FEES CALCULATED BY VALUATION*

This includes all new buildings, facilities, additions, tenant improvements and residential remodels.

**All sub-permits (plumbing, mechanical and electrical) are included in the plan check and inspection fees for valuation based projects.*

INSPECTION FEES

***Fire re-inspection fees are \$387*

**Hazardous Materials Inspection Fees vary on complexity of project (see Hazardous Materials comments below in Plan Review Fee Section for examples and contacts for estimates.)*

BUILDING INSPECTION FEE	<i>Based from Fee Table</i>	\$ _____
**FIRE INSPECTION FEE	<i>Flat Rate</i>	\$221
*HAZ-MAT INSPECTION FEE	<i>Minimum</i>	\$330/inspection
PLANNING + LANDSCAPE INSPECTION FEE	<i>Flat Rate</i>	\$212

PLAN REVIEW FEES

The Building Plan Check Fee applies to all permits. Other review fees will be applied based on the specific scope of work.

**Hazardous Materials Review and Inspection fees generally range from \$1,319 for small projects, such as cellular communication sites to \$3,969 for larger or more complex projects, such as those that may have H-Occupancies. Please contact the Hayward Fire Department at (510) 583-4900 for an estimate for your specific project.*

BUILDING INSPECTION FEE x 1.0 = BUILDING PLAN CHECK FEE:		\$ _____
<i>Plan Check fees for master plans shall be 1.25 x the BUILDING INSPECTION FEE</i>		
BUILDING INSPECTION FEE x .35 = PLANNING REVIEW FEE:		\$ _____
BUILDING INSPECTION FEE x .35 = FIRE REVIEW FEE:		\$ _____
*HAZ-MAT REVIEW FEE	<i>Minimum</i>	\$165/hour
SOLID WASTE REVIEW FEE	<i>Flat Rate</i>	\$80
BUILDING PLOT PLAN REVIEW FEE	<i>Flat Rate per Plot</i>	\$294
<i>This only applies to production homes.</i>		
PLANNING PLOT PLAN REVIEW FEE	<i>Flat Rate per Plot</i>	\$491
<i>This only applies to production homes.</i>		
FIRE PLOT PLAN REVIEW FEE	<i>Flat Rate per Plot</i>	\$110
<i>This only applies to production homes.</i>		

ADMINISTRATIVE FEES

Administrative fees apply to all permits. This includes the individual permits not calculated by valuation on the following pages.

BUILDING INSPECTION FEE x .06= TECHNOLOGY FEE:	\$ _____
BUILDING INSPECTION FEE x .16 = POLICY PLANNING FEE:	\$ _____
PERMIT ISSUANCE FEE (Flat Rate Applies to All Permits)	\$147

SMIP FEE RESIDENTIAL: .00013% OF VALUATION	CA BUILDING STANDARDS FEE: \$1.00 (Valuation \$1-25k) \$2.00 (Valuation \$25-50k) \$3.00 (Valuation \$50-75k) \$4.00 (Valuation \$75-100k) Add \$1 per every 25k over 100k	SMIP: \$ _____
SMIP FEE COMMERCIAL: .00028% OF VALUATION		CA BLDG. STANDARDS FEE \$ _____

BUILDING PERMIT FEE: \$ _____

The Building Permit Fee is defined as the sum of the plan check, inspection, and administrative fees. Some projects will also have impact fees which are calculated separately.

FLAT RATE PERMIT FEES

These items will also have administrative fees added to the permit. In some cases, hourly plan review fees will also be required.

Miscellaneous Permit Fees – Not Calculated by Valuation	Unit	Fee
1. Standard Hourly Rate (or fraction thereof) for Plan Check and Inspections	hourly	\$147/hour
a. Overtime Rate for Plan Check or Inspection Services	hourly	\$220.50
2. Revision (permit issuance fee and hourly plan check will also be charged)	hourly	\$147
3. Permit Issuance Fee (applies to all permits)	each	\$147
4. Miscellaneous Items (for items that do not have a set fee)	each	\$147
5. Plot Plan Review		
a. Planning Division Plot Plan Review	each plot	\$441
b. Building Division Plot Plan Review and processing	each plot	\$294
6. Address Assignment		
a. New address	each	\$220.50
b. Accessory Dwelling Unit Address	each	\$73.50
		<u>Inspection Fee</u>
7. Demolition		
a. Commercial/Residential demolition up to 3,000 square feet	0-3000 sf	\$294
b. Each additional 3,000 square feet	each	\$147
8. Equipment Installation	first piece	\$294
a. Additional Equipment at Same Site	each	\$147
b. Equipment Pad	each	\$220.50
9. Voluntary Residential Seismic Retrofit Using "Plan Set A" Only applies to single family homes with a crawlspace less than or equal to 4 feet high.	each	\$147 Flat Rate - no admin fees
10. Damaged Building Survey Fire, flood, vehicle or similar damage		\$588
11. Patio Covers		
a. Patio Cover (requires drawings and hourly plan check)	each	\$294
b. Enclosed Patio (requires drawings and hourly plan check)	each	\$588
12. Photovoltaic Systems		
a. Residential (for systems that are not flush mounted, hourly plan check fees apply)	each system	\$300 Flat Rate – no admin fees
b. Commercial, up to 50 kilowatts (hourly plan check fees apply)	each system	\$1,000
c. Commercial, each additional kilowatt 51kw-250kw (hourly plan check fees apply)	each kw	\$7
d. Commercial, each additional kilowatt over 250kw (hourly plan check fees apply)	each kw	\$5
13. Residential Package Permits		
a. Tub / Shower Enclosure (includes trades)		\$147
b. Remodel- Complete Bathroom (includes trades)		\$220.50
c. Remodel- Kitchen (includes trades)		\$441
14. Storage Racks		
a. Up to 100 linear feet	first 100 lf	\$441
b. Each additional 100 linear feet	each 100 lf	\$147

FLAT RATE PERMIT FEES

These items will also have administrative fees added to the permit. In some cases, hourly plan review fees will also be required.

<u>Plumbing Mechanical & Electrical Fees – Not Calculated by Valuation</u>	<u>Unit</u>	<u>Inspection Fee</u>
15. Plumbing Permits – Residential (single-family and duplexes)		
a. Water Heater	each	\$73.50
b. Fixtures – covers 2 Inspections for any type or number of fixtures	2 site visits	\$147
c. Water Service Repair / Replacement	each	\$73.50
d. Water Pipe (Repair or Replacement)	each	\$147
e. Sewer on private property or Cleanout Installation	each	\$147
f. Sewer Ejector System	each	\$147
g. Solar Water Heating System - <i>Hourly plan check fees may apply for systems that are not flush mounted or have other structural issues.</i>	each	\$147
h. Residential Gas Piping		\$147
i. Residential Gas Test or Meter Reset	each	\$147
16. Plumbing Permits – Commercial + Multi-Family		
a. Water Heater (Repair or Replacement)	each	\$147
b. Water Service (Repair or Replacement)	each	\$147
c. Sewer Ejector System	each	\$147
d. Industrial / Commercial Process Piping System	Each 100 linear feet or fraction thereof	\$147/ 100 feet
e. Gas Piping	Each 100 linear feet or fraction thereof	\$147/ 100 feet
f. Gas Test / Meter Reset	each	\$147
g. Sewer on private property or Cleanout Installation	each	\$147
h. Grease Trap	each	\$147
i. Grease Interceptor	each	\$147
j. Vacuum Breaker, Backflow Preventer or Pressure Regulator	each	\$147
17. Mechanical Permits – Residential (single-family and duplexes)		
a. Heating and/or Cooling Equipment (including ducts)	each	\$147
b. Wall Furnace	each	\$147
c. Kitchen Hood and Bathroom Vents	each	\$73.50
18. Mechanical Permits – Commercial + Multi-Family		
<i>*For units over 400 pounds or for replacements that are not in the same location, hourly plan review fees apply.</i>		
a. *HVAC unit (includes all associated sub-permits)	each	\$220.50
b. *Air Handler Unit	each	\$147
c. Vent System	each	\$147
d. Exhaust Hood Replacement (additional hourly plan check may apply)	each	\$147
19. Electrical Permits – Residential (single-family and duplexes)		
a. General Electrical Permit - Residential (rough and final)	each	\$220.50
b. Residential E.V. charger	each	\$73.50
c. Service Upgrade -- Residential	each	\$73.50
d. Meter Reset	each	\$73.50
e. Temporary Power Installation	each	\$147
f. Minor Residential Electrical Permit (final only- no rough)	each	\$147

FLAT RATE PERMIT FEES

These items will also have administrative fees added to the permit. In some cases, hourly plan review fees will also be required.

20. Electrical Permits – Commercial + Multi-Family

Inspection Fee

a. General Electrical Permit – <i>Commercial + Multi-Family</i> (rough and final)	each	\$441
b. Commercial E.V. charger (may require additional hourly plan review)	each	\$294
c. Commercial Service Upgrade	each	\$147
d. Commercial Meter Reset	each	\$73.50
e. Minor Commercial Electrical Permit (final only- no rough)	each	\$220.50
f. Signs (illuminated exterior signage)	each	\$147

Additional Services and Violations – Not Calculated by Valuation

Unit

Fee

21. Special Review Services

a. Expedited Hourly Plan Review	hour	\$220.50/hour
b. Expedited Plan Review	each	200% of Plan Review Fee
c. Phased Approval Permits	each	\$588
d. Temporary Certificate of Occupancy	each	\$588
e. Alternate Materials and Methods Review	each	\$588

22. Copies, Re-Print + Change of Contractor

a. Printing Scanned / Archived Drawings	each	\$10 per sheet
b. Job Card / Permit Re-Print	each	\$73.50
c. Change of Contractor	each	\$147

23. Special Inspector Qualification Review

a. Initial Review for Approved Inspector List	each	\$588
b. Renewal Review (after 3 years)	each	\$294

24. Violation Fees

a. Investigation Fee for work done without Permits (in addition to the regular permit fees)	Each project	205% of the Building Permit Fee
b. Filing of Notice of Substandard or Hazardous Structure	hourly	\$147 per hour
c. Removal of Notice of Substandard or Hazardous Structure	hourly	\$147 per hour
d. Placards for Condemnation	hourly	\$147 per hour
e. Notice and Order	hourly	\$147 per hour
f. Stop Work Order / Red Tag	hourly	\$147 per hour

C. CODE ENFORCEMENT – COMMUNITY PRESERVATION PROGRAM

1. Request for Postponement of Inspection

a. First Request	No Charge	
b. Second Request	No Charge	+ \$400 penalty
c. Third Request	No Charge	+ \$800 penalty
d. "No Show" for Inspection Appointment	\$ 392	+ \$1,600 penalty

2. Violation of Community Preservation, Sign, Vehicle, Weed Abatement, Building, Public Nuisance, Zoning Ordinances, and HMC Code violations

a. First Violation		
(1) Initial inspection	No Charge	
(2) Reinspection shows violation eliminated	No Charge	
(3) Reinspection shows violation still exists	\$ 626	+ \$400 penalty
(4) Second inspection violation still exists	\$ 626	+ \$800 penalty
(5) Third, Fourth, Fifth and Subsequent inspection shows violation still	\$ 626	+ \$1,600 penalty
b. Subsequent violation(s)		
(1) Initial inspection and notices	\$ 743	+ \$800 penalty
(2) Each subsequent inspection violation still exists	\$ 626	+ \$1,600 penalty
c. Abatement costs (per parcel)	\$ 1,325	plus contractor costs
d. Lien/Special Assessment (per parcel)	\$ 1,811	per parcel

3. Hearing Fee: (Administrative, Special Assessment, Administrative Citation, and Lien Hearings)

\$ 946	per Hearing
--------	-------------

4. Egregious Violation(s) Penalties

On-going health and safety violations, public nuisances and illegal uses, including but not limited to: garage conversion, room additions, accessory structures, construction without permits, home occupation, use permits or site plan review, unpermitted uses related to environmental hazards.

a. Tier 1 for first verified violation(s)	\$ 1,500
b. Tier 2 for second verified violation(s)	\$ 3,000
c. Tier 3 for third and subsequent verified violation(s)	\$ 5,000

5. Tobacco Retailer License, Initial or Renewal Fee

	\$ 400	annual fee
a. First Offense	\$ 1,500	penalty/30-day TRL suspensi
b. Second Offense	\$ 3,000	penalty/30-day TRL suspensi
c. Third Offense	\$ 5,000	penalty/30-day TRL suspensi
Resinspection Fee	\$ 117	Per visit

6. Cannabis Licensing Program, License Renewal, Inspection, Penalties Fees

		minimum one inspection per year (includes up to four HPD decoy fees/inspections annually).
a. Annual Commercial Cannabis Permit Fee:	\$ 15,000	
b. Program Fees:		
1) Initial Inspection, no violation found	\$ -	
2) Initial Inspection, violations found	\$ 5,000	
3) 2nd reinspection, no violations	\$ 500	reinspection fee
4) 2nd reinspection, violations found	\$ 10,000	+ \$500 reinspection fee
5) 3rd & subsequent reinspection, no violations	\$ 500	reinspection fee
6) 3rd & subsequent reinspection, violations found	\$ 15,000	+ \$500 reinspection fee
7) Subsequent Violations	\$ 10,000	+ \$500 reinspection fee
8) Subsequent reinspections, no violations found	\$ 500	reinspection fee
9) Subsequent reinspections, violations found	\$ 15,000	+ \$500 reinspection fee
10) Any required inspections after the initial inspection greater than three hours will be assessed an hourly code enforcement inspection fee of \$200/hr.		

c. Work Permit Application Fee		
Initial Application Fee (Including, but not limited to, Fingerprints, Live Scan, and Badge)	\$	299
d. Renewal Fee w/o Live Scan	\$	160

7. Grading or Encroachment Permit

a. Code violation illegal project, penalty fee may be applied daily	\$	125
b. Code Enforcement Investigations fees, for permit not yet obtained	\$	2,000

8. Building Violation Fees

a. Investigation Fee for work done without Permits (in addition to the regular permit fees)	205% of Building Permit Fee	
b. Filing of Notice of Substandard or Hazardous Structure	\$	164 per hour
c. Removal of Notice Substandard or Hazardous Structure	\$	164 per hour
d. Placards for Condemnation	\$	164 per hour
e. Notice and Order	\$	164 per hour



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: CONS 18-547

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Fire Chief

SUBJECT

Authorization for the City Manager to Negotiate and Execute a Memorandum of Understanding with the Chabot-Las Positas Community College District to Establish the Basis for a Ground Lease, Design, and Construction of the Fire Training Center

RECOMMENDATION

That Council authorizes the City Manager to: 1) Negotiate and execute a Memorandum of Understanding (MOU) with the Chabot-Las Positas Community College District (District) to establish the basis for a ground lease of a portion of the Fire Training Center and for the design and construction of the classrooms and other Fire Training Center facilities; and (2) Accept up to \$20 million dollars from the District for the design, construction, and furnishing of the District's Facilities at the Fire Training Center.

SUMMARY

Over the past few years, staff has worked on the design of the new Fire Station No. 6 and Fire Training Center. Design will continue into early 2019, with construction anticipated to begin in fall 2019. As part of this effort, staff has been meeting with the Chabot-Las Positas Community College District (District) to explore a potential partnership on the Fire Training Center. On October 24, 2017, the District's Board of Trustees passed a motion directing the Chancellor to create a Memorandum of Understanding (MOU) with the City of Hayward. Over the past several months, staff has worked with the District to draft an MOU. Staff recommends that City Council adopts the resolution (Attachment II) to authorize the City Manager to negotiate and execute the MOU with the District.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	Site Plan

File #: CONS 18-547



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Fire Chief

SUBJECT: Authorization for the City Manager to Negotiate and Execute a Memorandum of Understanding with the Chabot-Las Positas Community College District to Establish the Basis for a Ground Lease, Design, and Construction of the Fire Training Center

RECOMMENDATION

That Council authorizes the City Manager to: 1) Negotiate and execute a Memorandum of Understanding (MOU) with the Chabot-Las Positas Community College District (District) to establish the basis for a ground lease of a portion of the Fire Training Center and for the design and construction of the classrooms and other Fire Training Center facilities; and (2) Accept up to \$20 million dollars from the District for the design, construction, and furnishing of the District's Facilities at the Fire Training Center.

SUMMARY

Over the past few years, staff has worked on the design of the new Fire Station No. 6 and Fire Training Center. Design will continue into early 2019, with construction anticipated to begin in fall 2019. As part of this effort, staff has been meeting with the Chabot-Las Positas Community College District (District) to explore a potential partnership on the Fire Training Center. On October 24, 2017, the District's Board of Trustees passed a motion directing the Chancellor to create a Memorandum of Understanding (MOU) with the City of Hayward. Over the past several months staff has worked with the District to draft an MOU. Staff recommends that City Council adopts the resolution (Attachment II) to authorize the City Manager to negotiate and execute the MOU with the District.

BACKGROUND

On June 3, 2014, voters approved Measure C, which authorized the City of Hayward to increase the sales tax rate in the City by one-half cent for twenty years to restore and maintain City services and facilities, including firefighting/emergency medical services. On October 10, 2014, the City's consultant RossDrulisCusenbery (RDC) completed a facility needs assessment for Fire Stations 1-6 and the Fire Training Center, which determined that substantial upgrades were needed.

On May 26, 2015, Council authorized the City Manager to negotiate and execute an agreement with RDC for design services for Fire Stations 1-6 and the Fire Training Center Improvement project. In April 2016, staff and the City consultant visited the Fort Worth Public Safety Complex, designed by RDC's consultant team, to see firsthand which elements could or should be incorporated into Hayward's Fire Training Center. One of the key observations was creating a layout designed to allow for multiple groups to use the facility simultaneously. The proposed layout of the City's new Fire Training Center will allow multiple classes to be conducted concurrently while maintaining the day-to-day operations of Fire Station 6 and the ARFF unit.

Staff provided an update on this project to Council on [October 18, 2016](#). On March 21, 2017, Council authorized the City Manager to execute an amendment with RDC to provide schematic design services for the full build out design of Fire Station 6 and the Fire Training Center. Design of the new Fire Station No. 6 and Fire Training Center will continue into early 2019, with construction anticipated to begin in fall 2019. The current version of the site plan is provided as Attachment III.

DISCUSSION

Staff from the Chabot-Las Positas Community College District (District) and the City have been meeting since June of 2016 to explore a potential partnership on the Fire Training Center. Chabot College's Fire Technology Program became an Accredited Regional Fire Academy in 1998 and continues to offer training opportunities for entry-level and active duty fire service professionals.

Both the City and the District recognize the mutual benefits of expanding the Hayward Fire Training Center to a be joint center and training program with dedicated classroom space, offices, and shared use of the grounds. The City has included District staff in the design meetings for the new Training Center. On October 24, 2017, the District's Board of Trustees passed a motion directing staff to return with a proposed MOU with the City.

Over the past several months, City staff have worked with District staff and consultants to draft an MOU. Key provisions of the MOU are:

- The District and the City will create a ground lease with an annual rent of \$1. The Ground Lease Term will be thirty years, with the option to extend for up to two consecutive ten-year terms.
- The District will contribute funds for design, construction and furnishing of the District Facilities up to \$20 million dollars.
- The City will serve as the Lead Agency for design and construction of the District Facilities, which will include indoor and outdoor classroom spaces, parking spaces, and Apparatus Building space.

- The City and District will create a Joint-Use agreement establishing terms for the City's use of District's Facilities and the District's right to use City-occupied Fire Training Center facilities as part of its fire science curriculum.
- During the Term of the ground lease, the District shall be the sole owner of and have exclusive rights to occupy the District Facilities. Upon expiration of the Ground Lease, the District will convey the title of the District Facilities and furnishings to the City.
- The District will establish Facilities Use Charges for third party classroom use. The District will transfer revenue from these charges to the City to cover routine maintenance and repair costs. The City will be responsible for utilities, security, custodial service, and building maintenance.

Staff recommends that City Council adopt the resolution (Attachment II) to authorize the City Manager to execute an MOU with the District. In addition, the resolution would authorize the City Manager to accept revenue from the District up to \$20 million dollars for the design, construction, and furnishing of the District's Facilities at the Fire Training Center.

FISCAL IMPACT

The contribution of these funds will provide funding for a portion of the cost of the design, construction, and furnishings of the District's Facilities at the Fire Training Center. The District will contribute up to \$20 million dollars towards these costs.

The adopted Capital Improvement Program includes \$25,187,000 in FY 2019 for Project 07482 – New Fire Training Center in Fund 406-Measure C, as well as \$23.5 million dollars for FY 2020. These funds coupled with the contribution from Chabot are sufficient to cover the estimated cost of the full build out costs for the Fire Training Center.

There is the possibility of a short-term deficit in the Measure C Fund as expenditures may outpace revenues in an effort to finish the project in a timely and cost-effective manner. Given this fact, staff is exploring the possibility of short-term financing and will bring options back to Council later this calendar year for consideration.

STRATEGIC INITIATIVES

This agenda item supports the Complete Communities Strategic Initiative. The purpose of the Complete Communities initiative is to create and support structures, services and amenities to provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work and play for all. This item supports the following goal and objectives:

Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.

Objective 1: Increase neighborhood safety and cohesion, and

Objective 4: Create resilient and sustainable neighborhoods

SUSTAINABILITY FEATURES

The Fire Training Center Improvement Project will include sustainability features such as minimum LEED Silver Certification, or better, and zero net energy.

NEXT STEPS

If the Council authorizes this action, staff will finalize and execute the MOU with the District. Staff will then continue to work with the District to draft the supporting agreements necessary to implement the design, construction, and ground lease of the Fire Training Center. Staff will return to Council with a final draft of the Ground Lease and Joint-Use Agreement. In addition, staff will create a project website with status updates and will provide an informational report to Council at least annually.

Prepared by: Mary Thomas, Management Analyst

Recommended by: Garrett Contreras, Fire Chief

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-_____

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE A MEMORANDUM OF UNDERSTANDING WITH THE CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT TO ESTABLISH THE BASIS FOR A GROUND LEASE OF A PORTION OF THE FIRE TRAINING CENTER AND FOR THE DESIGN AND CONSTRUCTION OF THE CLASSROOMS AND OTHER FIRE TRAINING CENTER FACILITIES

WHEREAS, The City of Hayward (City) intends to demolish the existing Winton Fire Station and to construct, on the Winton Fire Station site, a new Winton Fire Station along with a new fire training center (Fire Training Center); and,

WHEREAS, The Fire Training Center consists of a number of separate facilities, including: A Storage Building, Outdoor Classroom, Apparatus Building, driver training course and related training and site improvements; and,

WHEREAS, The Chabot College campus of the Chabot-Las Positas Community College District (District) operates a Fire Technology Program that became an Accredited Regional Fire Academy in 1998 and continues to offer training opportunities for entry-level and active duty fire service professionals; and,

WHEREAS, The City and the District recognize the mutual benefits of working collaboratively to expand the Fire Training Facility to a be regional center and training program with dedicated classroom space, offices, and shared use of the grounds; and,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to negotiate and execute a Memorandum of Understanding (MOU) with the Chabot-Las Positas Community College District to establish the basis for a ground lease of a portion of the Fire Training Center and a basis for the design and construction of the classrooms and other Fire Training Center facilities.

NOW, THEREFORE, BE IT FURTHER RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized to accept revenue up to \$20 million dollars from the Chabot-Las Positas Community College District for the design, construction, and furnishing of the District's Facilities at the Fire Training Center.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
 MAYOR:

NOES: COUNCIL MEMBERS:

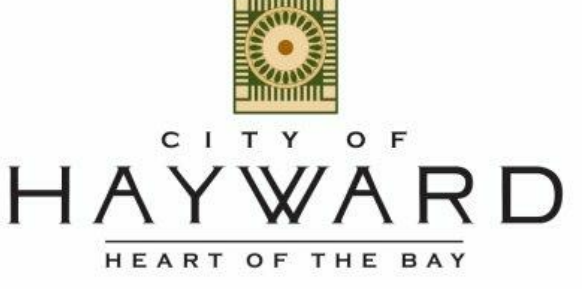
ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
 City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



CITY OF HAYWARD
HEART OF THE BAY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DESIGNED BY:	CHECKED BY:
DRAWN BY:	APPROVAL RECD:
APPROVED BY:	
KATHY GARCIA DEP. DIR. PUBLIC WORKS	ALEX AMERI INTERIM DIR. PUBLIC WORKS
PROJ. NO. 07481 & 07482	FILE NO. E-2157

HAYWARD FIRE STATION #6 & FIRE TRAINING CENTER

1401 W. WINTON AVE.
HAYWARD, CA 94545

REVISIONS

No.	Description	Date

PLANNING SPR
RESUBMITTAL

ARCHITECTURAL SITE PLAN -
OVERALL CAMPUS

Drawn By: EW Checked By: EW

Scale:
As indicated

Date:
May 30, 2018

Project No.: 2016039

0-A1.10
Drawing No.

If this drawing is not 30" x 42" it is a reduced print. Scale accordingly. All rights reserved. Material may not be reproduced in any form without permission from RossDruCusenbery Architecture, Inc.

General Building Information								
Building No.	Name	Description	CBC Use & Occupancy Classification(s)	CBC Construction Type	Fire Sprinklers Provided	No. of Stories	Building Footprint Area	Total Building Area
1	Fire Station #6 / Classroom Building	2-company fire station, training classrooms, & administrative offices	A-3 (Assembly) B (Office) R-2 (Residential) S-2 (Storage)	V-B	Yes	2	12,598 SF	20,643 SF
2	Apparatus Building	Vehicle storage / training area, turn out lockers, & restrooms	B (Assembly > 50) F-1 (Shop) S-2 (Storage)	II-B	Yes	1	8,268 SF	8,268 SF
3	Hangar Building	Covered vehicle wash down area	U (Utility)	II-B	No	1	1,512 SF	1,512 SF
4	Storage Building	Residential-style Class "A" material storage building	S-2 (Storage)	II-B	No	1	1,160 SF	1,160 SF
5	Burn Building	Residential-style Class "A" burn training structure	*Prop* per NFPA 1402 N/A	II-B	No	3	2,120 SF	4,732 SF
6	Covered Break Area	Covered trainee break area, restrooms, & general storage	A-3 (Assembly) S-2 (Storage)	II-B	No	1	1,600 SF	1,600 SF
7	USAR/BART Station	Confined space / elevated BART platform training structure	N/A *Prop* per NFPA 1402	II-B	No	3	4,719 SF	13,715 SF
8	Training Tower	Commercial-style Class "B" burn training structure	*Prop* per NFPA 1402 U (Utility)	II-B	No	4	3,640 SF	11,513 SF
9	Entry Canopy	Photovoltaic shade structure	U (Utility)	II-B	No	1	1,333 SF	1,333 SF

Parking Tabulation					
Use	Daily Classes	FTE Occupants	Occupant Total	Parking Ratio	Parking Required
Education (HFD)	1	22	22	1:2	11
Education (Chabot EMT)	2	45	90	1:2	45
Education (Chabot FT)	2	44	88	1:2	44
Education (Chabot AC)	1	25	25	1:2	13
Office (1,345 SF)				1:250 SF	5
Fire Station #6 Staff					12
Total Parking Required			6	2:1	130
Total Parking Provided					130

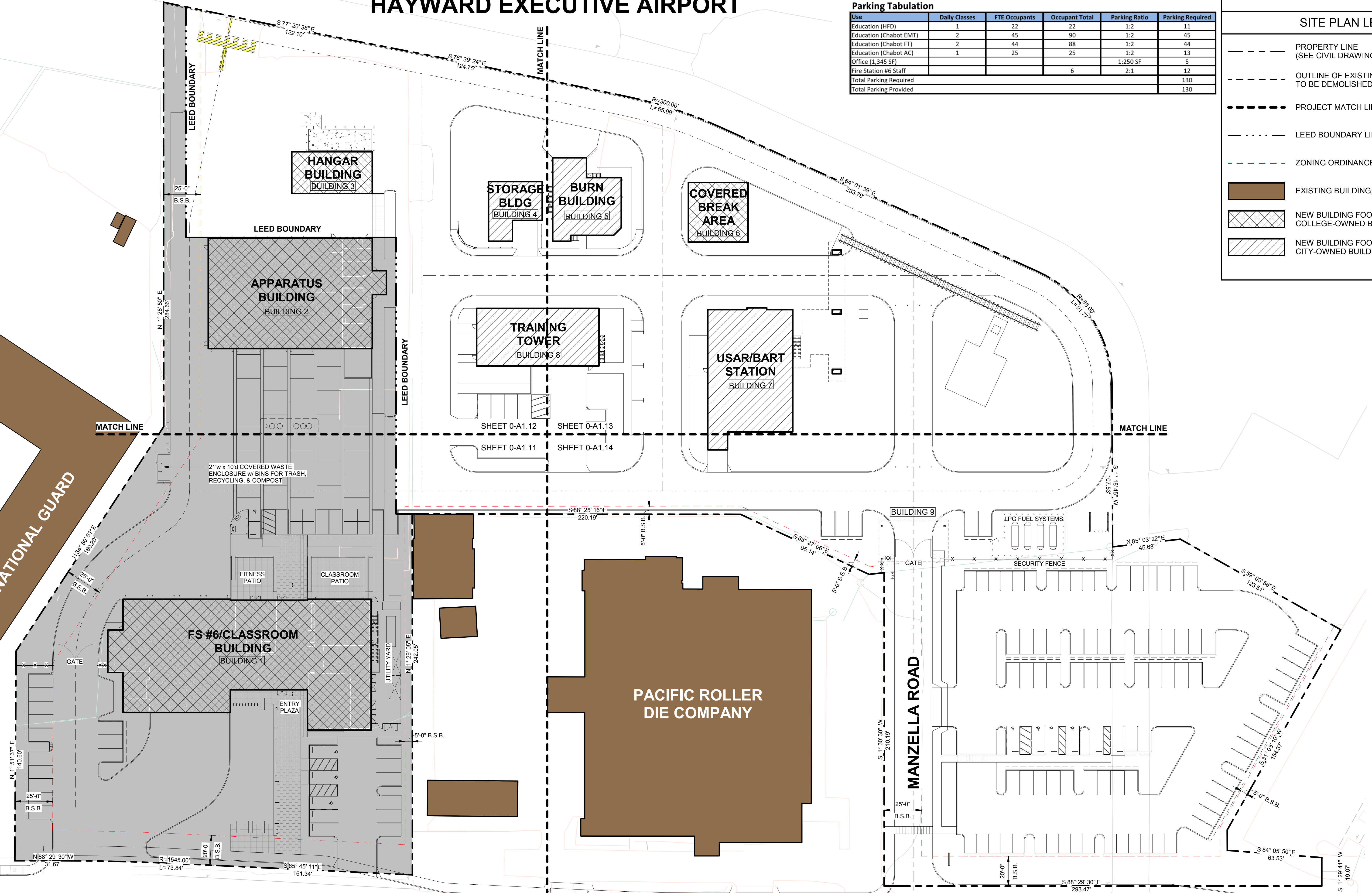
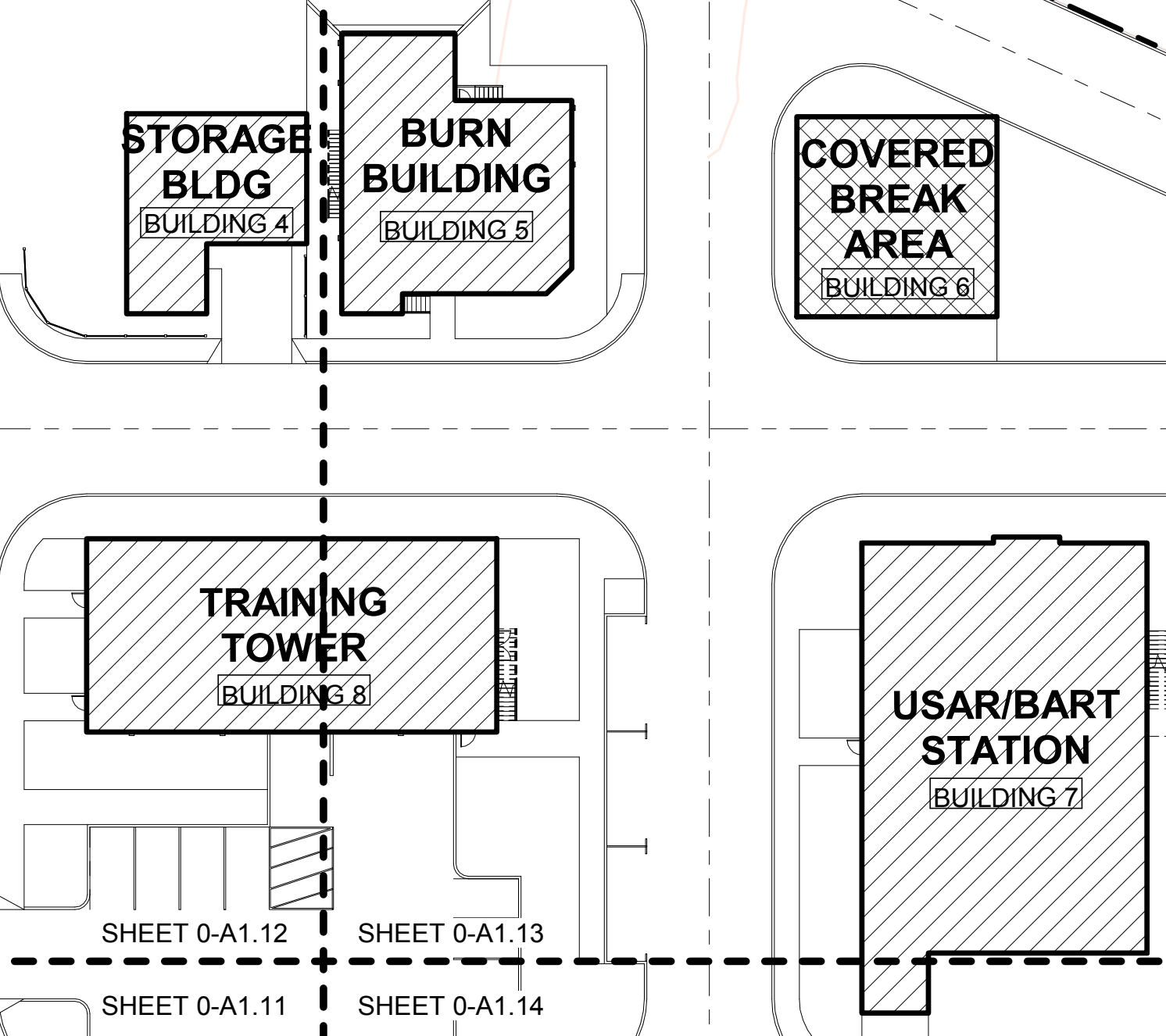
GENERAL SHEET NOTES

- THE EXISTING SITE INFORMATION AND FEATURES SHOWN HEREIN ARE BASED UPON AN AERIAL SURVEY PERFORMED BY GEOTERRA ON APRIL 4, 2016 AND SUPPLEMENTAL FIELD SURVEY PERFORMED BY BKF ENGINEERS ON APRIL 27, 2016.
- SEE CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL SITE IMPROVEMENT PLANS AND DETAILS.

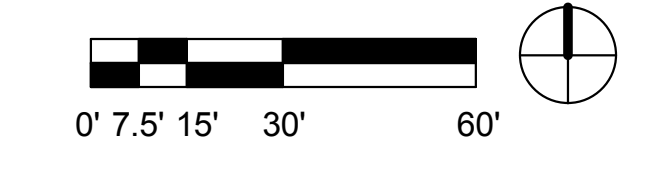
SITE PLAN LEGEND

- PROPERTY LINE (SEE CIVIL DRAWINGS FOR LIMITS OF WORK)
- OUTLINE OF EXISTING BUILDING, TO BE DEMOLISHED AND REMOVED
- PROJECT MATCH LINE
- LEED BOUNDARY LINE
- ZONING ORDINANCE BUILDING SETBACK LINE
- EXISTING BUILDING, TO REMAIN
- NEW BUILDING FOOTPRINT COLLEGE-OWNED BUILDING
- NEW BUILDING FOOTPRINT CITY-OWNED BUILDING

HAYWARD EXECUTIVE AIRPORT



WEST WINTON AVENUE



PRELIMINARY DESIGN. NOT FOR CONSTRUCTION.



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: PH 18-064

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Development Services Director

SUBJECT

Application to Amend Chapter 10, Article 1(Zoning Ordinance), Sections 10-1.845.j (5) and (6); and 10-1.1045.j (5) and (6) (Minimum Design and Performance Standards) of the Hayward Municipal Code Related to Drive-Through Restaurants and Drive-Through Coffee/Esspresso Shops in the City of Hayward by United Growth Capital Management, LLC. (Applicant), Requiring the Introduction of an Ordinance and the Adoption of a Resolution Approving Zoning Text Amendment Application No. 201802227

RECOMMENDATION

That the City Council approves the proposed Zoning Text Amendment to Chapter 10, Article 1, Sections 10-1.845.j (5) and (6); and 10-1.1045.j (5) and (6) (Minimum Design and Performance Standards of the Hayward Municipal Code related to drive-through establishments in the City of Hayward by introducing an Ordinance (Attachment II) and adopting the Resolution (Attachment III) with the required Findings and environmental review.

SUMMARY

United Growth Capital Management, LLC (“United Growth”) is requesting approval of a Zoning Text Amendment (ZTA) application to amend the minimum design and performance standards related to drive-through restaurants and drive-through coffee/espresso shops to allow additional flexibility for the establishment of new drive-through facilities in the City within half-mile of another establishment.

Currently, the minimum design and performance standards for drive-through restaurants and coffee/espresso shops prohibit the establishment of any drive-through restaurant or drive-through coffee/espresso shop within half-mile radius of another establishment as measured from the building walls of existing or proposed buildings. The applicant is requesting to amend the current land use prohibition to allow the establishment of these land uses, if certain additional findings can be made related to location.

File #: PH 18-064

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Ordinance
Attachment III	Resolution
Attachment IV	CEDC Meeting Minutes April 2, 2018
Attachment V	Map of Drive-Through Restaurants
Attachment VI	Map of Half-Mile Buffer from Freeways



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Development Services Director

SUBJECT: Application to Amend Chapter 10, Article 1(Zoning Ordinance), Sections 10-1.845.j (5) and (6); and 10-1.1045.j (5) and (6) (Minimum Design and Performance Standards) of the Hayward Municipal Code Related to Drive-Through Restaurants and Drive-Through Coffee/Espresso Shops in the City of Hayward by United Growth Capital Management, LLC. (Applicant), Requiring the Introduction of an Ordinance and the Adoption of a Resolution Approving Zoning Text Amendment Application No. 201802227

RECOMMENDATION

That the City Council approves the proposed Zoning Text Amendment to Chapter 10, Article 1, Sections 10-1.845.j (5) and (6); and 10-1.1045.j (5) and (6) (Minimum Design and Performance Standards of the Hayward Municipal Code related to drive-through establishments in the City of Hayward by introducing an Ordinance (Attachment II) and adopting the Resolution (Attachment III) with the required Findings and environmental review.

SUMMARY

United Growth Capital Management, LLC (“United Growth”) is requesting approval of a Zoning Text Amendment (ZTA) application to amend the minimum design and performance standards related to drive-through restaurants and drive-through coffee/espresso shops to allow additional flexibility for the establishment of new drive-through facilities in the City within half-mile of another establishment.

Currently, the minimum design and performance standards for drive-through restaurants and coffee/espresso shops prohibit the establishment of any drive-through restaurant or drive-through coffee/espresso shop within half-mile radius of another establishment as measured from the building walls of existing or proposed buildings. The applicant is requesting to amend the current land use prohibition to allow the establishment of these land uses, if certain additional findings can be made related to location.

BACKGROUND

[United Growth](#) is a development and asset management firm that has specialized in the development and redevelopment of first-class retail centers throughout the United States for over twenty years. The primary objective for United Growth is to attract a productive mix of quality restaurant and retail tenants that serve the community and complement its centers and the surrounding area focusing on trade areas with high traffic, excellent visibility, strong demographics, and the ease of property ingress/egress. United Growth has developed and managed projects for clients in the past that include, but are not limited to, The Habit Burger Grill, Bank of America, Five Guys, Petco, Starbucks, Panera Bread, and Dick's Sporting Goods.

Regulation History. Research indicates that zoning regulations and ordinances related to drive-in restaurants were originally introduced in the 1980s that restricted the development of these uses. In 1984, an urgency ordinance was adopted prohibiting the development of new drive-in restaurants which might have conflicted with the studies undertaken by the Planning Department to update drive-in restaurant regulations to address the problems of traffic circulation, litter, and visual impacts created by the proliferation of such uses. Upon completion of the drive-in establishments regulations update in 1986, [Ordinance No. 86-14](#) was introduced and adopted stating that, “[d]rive-in restaurants shall be prohibited within 500-feet of one another when located on and where access thereto is on the same side of a thoroughfare [...]”. Exceptions to this provision existed where drive-in restaurants shared common driveways and there were no other access points from a thoroughfare to the parcel. Since that time, the language was further amended in the 1990s, becoming more restrictive, to the City’s current regulations that now specify a half-mile prohibition regardless of which side of the street.

Council Economic Development Committee. On April 2, 2018, the applicant presented a preliminary concept review at the [Council Economic Development Committee \(CEDC\) meeting](#), where 4 of the 5 CEDC members were present (Michael Ly absent). The purpose of the review was to introduce the preliminary conceptual project and the related policy issue to the CEDC and obtain high-level feedback related to drive-through establishments, particularly drive-through restaurant uses. During the meeting, each of the CEDC members conveyed their comments, concerns, and questions to United Growth and staff regarding potential model tenants, expectations, operational standards (i.e. debris clean-up), and appropriate locations for additional drive-throughs. The minutes of the CEDC meeting are included as Attachment IV.

Planning Commission Recommendation. On July 12, 2018, the [Planning Commission](#) reviewed the proposed text amendment application and voted 4:0:0 (two commissioners absent) to recommend approval to the City Council. There were approximately 6 persons in attendance for the agenda item (including the applicant). The Planning Commission discussed similar points that were raised at the CEDC meeting about bringing unique, healthier businesses to Hayward and how the proposed text amendment would introduce flexibility for those tenants to locate within the City. The Planning Commission also discussed the issue of litter and trash originating from drive-through establishments and how that would be addressed and monitored with the development of new drive-through restaurants.

DISCUSSION

Existing Restaurants. Within the City, there are 23 existing drive-through restaurants that include, but are not limited to, McDonalds, Burger King, Jack in the Box, Taco Bell and Kentucky Fried Chicken. Attachment V includes a map indicating the drive-through restaurants with their half-mile radii. City staff is currently processing two Conditional Use Permit applications for new Starbucks cafes, with one proposed at the new Eden Shores Retail Center and the other at the intersection of Mission Boulevard and Tennyson Road; however, neither application has yet been approved. Based on the map, most of the existing drive-through restaurants are concentrated along major arterial streets such as Mission Boulevard, Jackson Street, Hesperian Boulevard, and Tennyson Road. County records indicate that approximately half of the existing drive-through restaurants in the City were developed in the 1980s, before the adoption of the ½ mile prohibition.

As stated previously, the minimum design and performance standards for drive-through restaurants and drive-through coffee/espresso shops are contained within Sections 10-1.845.j(5) and (6) and 10-1.1045.j(5) and (6) of the [Neighborhood Commercial \(CN\)](#) and [General Commercial \(CG\)](#) zoning districts. One of the most significant performance standards for drive-through restaurants is the prohibition of one or more of these establishments (either restaurant or coffee/espresso shop) within a half-mile of each other. As written, the HMC does not provide a mechanism for special findings, circumstances, or deviations from the prohibition such as a Variance. Currently, the Zoning Ordinance only allows for the development of drive-in establishments with the discretionary review and approval of an [Administrative Use Permit \(AUP\)](#) or [Conditional Use Permit \(CUP\)](#). AUPs may be processed administratively with a staff-level decision, whereas CUPs require the review and approval by the Planning Commission – unless otherwise appealed to next decision-making body. Zoning districts that do conditionally permit drive-through restaurants defer to the minimum performance and design standards section of the CN or CG zoning districts for operational and performance criteria; thus, an amendment to these Districts would apply to all applicable districts Citywide that currently allow drive-in and drive-through establishments, as shown in Table 1 below.

Table 1. Hayward Zoning Districts that Conditionally Permit Drive-In Establishments

ZONING DISTRICT	ENTITLEMENT PROCESS
Commercial Neighborhood (CN)	Conditional Use Permit (CUP)
General Commercial (CG)	Conditional Use Permit (CUP)
Central Business (CB)	Conditional Use Permit (CUP)
Commercial Limited (CL)	Conditional Use Permit (CUP)
Central-City Commercial (CC-C)	Conditional Use Permit (CUP)
Industrial District (I)	Administrative Use Permit (AUP)

South Hayward BART and Mission Boulevard Form-Based Codes (Specific Transect Zones)	Conditional Use Permit (CUP)
---	------------------------------

Proposed Amendment. The proposed amendments are related to the minimum design and performance standards for drive-in and drive-through establishments. Specifically, the amendment focuses on the half-mile prohibition to introduce some level of flexibility at select locations in the City, and to continue to minimize the placement of new drive-in and drive-through establishments in walkable, pedestrian friendly areas which are not as auto-oriented.

The proposed text amendment (Attachment II) is proposed to maintain the existing half-mile prohibition, but include additional special required findings within the performance standards that will need to be justified in addition to those of the AUP or CUP to allow for an application to be filed with the Planning Division. The required findings to grant flexibility are proposed to include the following:

- i. The drive-in or drive-through restaurants (and coffee/espresso shops) are located within one-half mile from the Interstate 880 (Nimitz Freeway) or State Route 92 (Jackson Freeway) rights-of-way as measured by the existing roadway network;
- ii. The location of the drive-in or drive-through restaurants (and coffee/espresso shops) will not have a substantial adverse effect on vehicular (including bicycle), pedestrian circulation and safety, or transit accessibility;
- iii. The drive-in or drive-through restaurants (and coffee/espresso shops) will not conflict with City adopted goals and policies including, but not limited to, the General Plan and Bicycle Master Plan; and
- iv. The site is suitable and adequate for the proposed use because the drive-in or drive-through restaurant (and coffee/espresso shops) lanes and service windows will be located at least seventy-five (75) feet away from residential uses and residentially zoned properties.

Such flexibility may be exercised if a project site is within a half-mile of the Interstate-880 (Nimitz Freeway) or State Route 92 (Jackson Freeway). It is important to note that the Jackson Freeway commences at the intersection of Santa Clara Street and West Jackson Street going westbound. East of that intersection is not considered the Jackson Freeway, but instead identified as an arterial City street. This finding will ensure that flexibility is granted for locations in proximity of a major freeway that bisects the City, which are consistent with other auto-oriented land uses.

The second and third findings will ensure that any proposed drive-through restaurant will not adversely impact the City's goal for multi-modal transportation options such as driving, biking, and walking. New drive-through restaurants seeking flexibility from the half-mile prohibition shall remain consistent and not conflict with the goals and policies set forth in the City's Hayward 2040 General Plan (Mobility Element), the Bicycle Mater Plan, or the Complete Streets Strategic Initiative. For example, Downtown Hayward is envisioned as a pedestrian-friendly, mixed-use destination where transit accessibility and walkability is prioritized over

the automobile. As such, a drive-through restaurant may not be appropriate. Additionally, the proposed findings include a requirement for a 75-foot buffer to minimize impacts of the proposed drive-through activities from adjacent residential properties, including impacts associated with additional light, noise, and odors.

In addition to the four new findings being proposed, the project would also need to meet the existing four findings for AUP or CUP issuance:

- a) The proposed use is desirable for the public convenience or welfare;
- b) The proposed use will not impair the character and integrity of the zoning district and surrounding area;
- c) The proposed use will not be detrimental to the public health, safety, or general welfare; and
- d) The proposed use is in harmony with applicable City policies and the intent and purpose of the zoning district involved.

[Hayward 2040 General Plan](#). The zoning districts that conditionally permit the drive-through restaurants and coffee/espresso shops will not change and will remain consistent with the accompanying General Plan land use designations that include allow retail, dining, and service uses as either a permitted or conditionally permitted use. Specifically, the City's General Plan contains policies to ensure that new drive-through establishments do not conflict with, a "variety of topics, including multimodal transportation, regional coordination, complete streets, local circulation, pedestrian facilities, bikeways, public transit, transportation demand management, parking, aviation, goods movement, and transportation funding" (Mobility Element, 2014). If the proposed text amendment is approved, all future development proposals will be evaluated to verify consistency. In addition to the Mobility Element, the proposed text amendment is consistent with the following policies related to Land Use and Community Character as well as the Economic Development Element:

- Land Use Policy LU-5.2 - Flexible Land Use Regulations. To maintain flexible land use regulations that allow the establishment of economically productive uses in regional and community centers.
- Economic Development Policy ED-6.7 - Business Incentives. To provide incentives to attract, expand, and retain businesses that offer high quality jobs, generate local sales tax revenue, and/or provide needed goods or services to residents.

Staff believes that the City Council can make the required findings (Attachment III) to support the Zoning Text Amendment to allow additional flexibility in the location of drive-through restaurants and coffee/espresso shops within the City of Hayward, provided that new establishments conform to the criteria and findings set forth in proposed amendments (Attachment II). These findings will safeguard that new drive-through establishments do not become established in over-concentrated areas of the City or in corridors that do not align with the intent of the zoning district (i.e. Mission Boulevard Corridor Specific Plan Area or Central City Downtown districts). Instead, where appropriate, the drive-through establishments may be allowed to apply close to freeway rights-of-way that already

accommodate traffic and trips to and from the freeway. The placement of drive-through restaurants near freeways allows for motorists and patrons to easily access these establishments for the public convenience.

Staff analysis has determined that based on existing zoning districts coupled with the flexibility granted by the proposed text amendment, potential new opportunity sites for drive-in and drive-through restaurants and coffee/espresso shops would be limited to the following areas: Southland Mall area, portions of "A" Street to and from the I-880, West Winton Avenue and Amador Street (adjacent to County buildings), commercial properties adjacent to the SR-92 entrance at West Jackson and Santa Clara Street, and areas of the Industrial zoning district along the SR-92 and I-880. Attachment VI includes a map indicating the half-mile buffer from the Interstate-880 and State-Route 92 freeways with the existing zoning districts that would conditionally permit drive-in establishments.

In addition, through the Use Permit process, City staff would evaluate that all proposed drive-through restaurants be designed to be compatible and sensitive to the adjacent land uses and structures. The CN and CG districts include general location and design criteria standards that exist today which mandate that drive-in uses not be near sensitive receptors such as schools, parks, playgrounds, libraries, churches, and other public or semi-public uses if pedestrian hazards may result.

Environmental Review. The proposed project is exempt from the California Environmental Quality Act (CEQA) under Section 15061(b)(3), as an activity that is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. The proposed project includes a Zoning Text Amendment to the Hayward Zoning Ordinance that will alleviate prohibitions related to the conditionally permitted locations of drive-through restaurants from each other. Future development projects shall still be required to apply for either an AUP or a CUP and would be evaluated on a case-by-case basis for environmental impacts pursuant to CEQA at that time.

ECONOMIC IMPACT

The proposed zoning text amendment would incorporate flexibility into the HMC for the potential development of new drive-in and drive-through restaurants or coffee/espresso shops within the City of Hayward that may provide both direct and indirect economic benefits. Direct economic benefits would include new sources of property and sales taxes from underutilized or vacant properties, whereas the indirect economic benefits would include the creation of new jobs related to the construction, employment, and management of such uses.

Economic impacts related to drive-in and drive-through restaurants and coffee/espresso shops would be more thoroughly evaluated once a site-specific location is identified by a developer and/or tenant that seeks to take advantage of the flexibility proposed by this zoning text amendment.

FISCAL IMPACT

The proposed text amendment would have a neutral fiscal impact in that the proposed regulations would be implemented on a case-by-case basis through the developer funded Use Permit application process.

STRATEGIC INITIATIVES

The proposed text amendment will continue to support the goals and objectives of the Complete Streets Strategic Initiative by requiring that all future developments including drive-in and drive-through restaurants or coffee/espresso shops are evaluated to ensure that multi-modal improvements are incorporated into the project, where possible. These multi-modal improvements may include, but may not be limited to the construction, repair, or replacement of sidewalks, bike lanes, crosswalks, curb ramps, and/or streetlights as determined by the nexus of the impact of any development to the public right-of-way. Thus, the project will continue to support the following goal and objective from the Complete Streets Initiative:

Goal 2: Provide complete streets that balance the diverse needs of users of the public right-of-way.

Objective: Increase walking, biking, transit usage, carpooling and other sustainable modes of transportation by designing and retrofitting streets to accommodate all modes.

SUSTAINABILITY FEATURES

The proposed text amendment only includes a modification to the Hayward Municipal Code, but any future drive-in and drive-through establishments would be reviewed to ensure conformance with State and local requirements related to sustainability (i.e. California Building Code). This includes requirements that new development provide a minimal level of energy efficiency, resource conservation, material recycling, air quality, solar readiness, electrical vehicle charging infrastructure, etc.

PUBLIC CONTACT

On July 13, 2018, a Notice of this Public Hearing for the City Council meeting was published in The Daily Review. If the application is approved by Council, separate Notices of Application Receipt will be sent for any site-specific location that is proposed to develop a drive-through establishment.

NEXT STEPS

If the City Council approves the application, the decision will be effective and final. A second reading and adoption of the Ordinance will occur at the next scheduled City Council meeting.

Prepared by: Marcus Martinez, Assistant Planner

Recommended by: Laura Simpson, AICP, Development Services Director

Approved by:

A handwritten signature in black ink, appearing to read "K. McAdoo". The signature is written in a cursive style with a large initial "K" and a distinct "McAdoo" at the end.

Kelly McAdoo, City Manager

ORDINANCE NO. 18-_____

AN ORDINANCE AMENDING CHAPTER 10, ARTICLE 1, SECTIONS 10-1.845.j (5) and (6); AND 10-1.1045.j(5) and (6) (MINIMUM DESIGN AND PERFORMANCE STANDARDS) OF THE HAYWARD MUNICIPAL CODE RELATED TO DRIVE-THROUGH RESTAURANTS AND DRIVE-THROUGH COFFEE/ESPRESSO SHOPS IN THE CITY OF HAYWARD.

WHEREAS, On July 24, 2018, the City Council held a public hearing and adopted findings in support of the requested zoning text amendment as set forth in the companion Resolution (No. 18-__);

NOW THEREFORE THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS FOLLOWS:

Section 1. Provisions. The City Council incorporates by reference the findings contained in Resolution No. 18-__ approving the text changes to the Hayward Municipal Code requested in Zoning Text Amendment Application No. 201802227.

Section 2. Chapter 10, Planning, Zoning, and Subdivisions of the Hayward Municipal Code, which establishes minimum performance and design standards for all zoning districts within City boundaries, is hereby amended to add certain text (as indicated by underline) and delete certain provisions (as indicated by strikethrough) in the attached Exhibit "A", related to Drive-In Establishments in the City, introduced herewith and as specifically shown in this Ordinance.

Section 3. Severance. Should any part of this Ordinance be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of the City, such decision shall not affect the validity of the remainder of this Ordinance, which shall continue in full force and effect, provided that the remainder of the Ordinance, absent the unexcised portion, can be reasonably interpreted to give effect to the intentions of the City Council.

Section 4. Effective Date. In accordance with the provisions of Section 620 of the City Charter, the Ordinance shall become effective immediately upon adoption.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the 24th day of July 2018, by Council Member _____.

ADOPTED at a regular meeting of the City Council of the City of Hayward, held the ___th day of _____ 2018, by the following votes of members of said City Council.

AYES: COUNCIL MEMBERS:

MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

APPROVED: _____
Mayor of the City of Hayward

DATE: _____

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward

“EXHIBIT A”

CHAPTER 10 – PLANNING, ZONING, AND SUBDIVISIONS

ARTICLE 1 – ZONING ORDINANCE

NEIGHBORHOOD COMMERCIAL (CN) ZONING DISTRICT

SEC. 10-1.845 - MINIMUM DESIGN AND PERFORMANCE STANDARDS.

The City recognizes that high-quality design of commercial structures can contribute to a positive appearance of commercial districts and neighborhoods and improve the overall character of the community. This Section establishes design and performance standards that shall apply to the construction of residential and commercial buildings and certain commercial uses in the CN District, including but not limited to cultural, educational, religious or recreational facilities. The development of CN-zoned properties in the South of Route 92 planning area is also subject to the provisions of the South of Route 92/Oliver and Weber Properties Specific Plan and the Development Guidelines for the South of Route 92 Oliver/Weber Properties.

Commercial Buildings and Uses.

For commercial buildings (including second story residential uses) refer to the design criteria contained in the City of Hayward Design Guidelines, the Hillside Design and Urban/Wildland Interface Guidelines and the following specific criteria and standards.

j. Drive-in Establishments - Special Standards and Conditions.

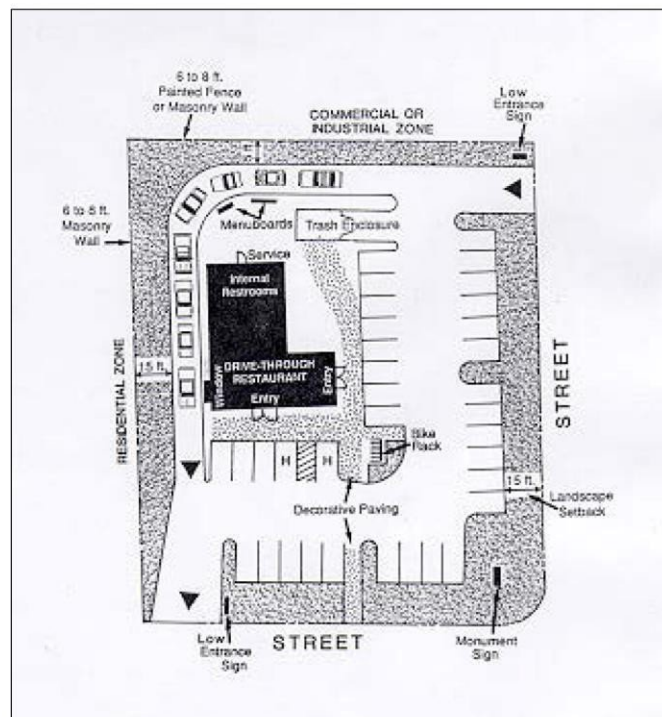
(5) Drive-Through Restaurants.

(a) Drive-in or drive-through restaurants shall be prohibited within ½-mile radius of one another as measured from the building walls of existing or proposed buildings, unless all the following required findings are met:

- i. The drive-in or drive-through restaurants are located within one-half mile from the Interstate 880 (Nimitz Freeway) or State Route 92 (Jackson Freeway) rights-of-way as measured by the existing roadway network;
- ii. The location of the drive-in or drive-through restaurants will not have a substantial adverse effect on vehicular (including bicycle), pedestrian circulation and safety, or transit accessibility;

- iii. The drive-in or drive-through restaurants will not conflict with City adopted goals and policies including, but not limited to, the General Plan and Bicycle Master Plan; and
 - iv. The site is suitable and adequate for the proposed use because the drive-in or drive-through restaurant lanes and service windows will be located at least seventy-five (75) feet away from residential uses and residentially zoned properties.
- (b) For each drive-in restaurant a bicycle rack shall be installed with a capacity for at least five bicycles.
 - (c) Drive-through lanes installed in connection with drive-in restaurants shall have a capacity for at least eight vehicles, at 20 feet per vehicle, unless adequate access and circulation is provided to minimize spillover onto public property.
 - (d) Pedestrian circulation areas located within drive-in restaurant developments with drive-up windows shall consist of decorative paving such as brick, paving stones, or Bomanite.
 - (e) Access to bathroom facilities located within drive-in restaurant developments shall be from within the structure, with no direct access from the parking area.
 - (f) Roof lights, refrigeration units or other extraneous features which are not integral parts of the main structure, inflexible building prototypes which result in an ability to meet setback and compatibility requirements, and unattractive building elevations visible to customers or passersby are prohibited.
 - (g) Identification signs for drive-in restaurants (excluding directional signs and the menu board) shall be limited to one monument sign not to exceed 10 feet in height and 36 square feet per face and two wall signs with letters not to exceed 18 inches in height. Total area for wall signs may include logos not to exceed 24 inches in height.
 - (h) All required yard areas abutting streets and not used for vehicle maneuvering or parking shall be landscaped. In all zoning districts a landscaped setback at least 15 feet wide shall be installed parallel to the street right(s) of way or precise plan line(s) and on interior property lines where drive-through aisles abut residential zoning districts.
 - (i) Minimum building site (lot area or lease area) shall be 25,000 square feet in area, unless adequate access and cross-parking is provided.

- (j) Drive-through aisles shall not be located between the building and the right-of-way and pick-up windows shall not face the right-of-way unless their visibility is minimized through the use of innovative building architecture and mounded or bermed landscaping to minimize their visual impact from the street. Menu board shall be placed so as to not be visible from the street.
- (k) Drive-through restaurants shall have an architectural theme that is unique for a given area as specified by City standards and policies or as determined by the Planning Director; franchise architecture shall be avoided where possible.



(6) Drive-Through Coffee/Esspresso Shops

(a) Drive-through coffee/esspresso shops shall be prohibited within ½-mile radius of one another as measured from the building walls of existing or proposed buildings, unless all the following required findings are met:

- i. The drive-through coffee/expresso shops located within one-half mile from the Interstate 880 (Nimitz Freeway) or State Route 92 (Jackson Freeway) rights-of-way as measured by the existing roadway network;
- ii. The location of the drive-through coffee/esspresso shops will not have a

- substantial adverse effect on vehicular (including bicycle), pedestrian circulation and safety, or transit accessibility;
- iii. The drive-through coffee/espresso shops will not conflict with City adopted goals and policies including, but not limited to, the General Plan and the Bicycle Master Plan; and
 - iv. The site is suitable and adequate for the proposed use because the drive- through coffee/espresso shop lanes and service windows will be located at least seventy-five (75) feet away from residential uses and residentially zoned properties.
- (b) Drive-through coffee/espresso shop buildings shall not exceed 500 square feet in area.
 - (c) Drive-through lanes for drive-up windows shall have a capacity for at least two vehicles, at 20 feet per vehicle, unless adequate access and circulation is provided to minimize spillover onto public property.
 - (d) Drive-through lanes shall consist of decorative paving such as brick, paving stones, or Bomanite.
 - (e) Public bathroom facilities shall be provided inside the drive-through building, unless public bathroom facilities are located within 200 feet on the same property and are accessible during coffee shop business hours.
 - (f) Roof lights, refrigeration units or other extraneous features which are not integral parts of the main structure, inflexible building prototypes which result in an ability to meet setback and compatibility requirements, and unattractive building elevations visible to customers or passersby are prohibited.
 - (g) Identification signs for drive-through coffee/espresso shops shall comply with the Hayward Sign Ordinance and shall be limited to one monument sign not to exceed 6 feet in height and two wall signs with letters not to exceed 18 inches in height. Total area for wall signs may include logos not to exceed 24 inches in height.
 - (h) All required yard areas abutting streets and not used for vehicle maneuvering or parking shall be landscaped. In all zoning districts a landscaped setback at least 10 feet wide shall be installed parallel to the street right-of-way or precise plan line and on interior property lines where drive-through aisles abut residential zoning districts.
 - (i) Minimum building site (lot area or lease area) shall be sufficient to accommodate the building and required circulation, maneuvering and

parking.

- (j) Drive-through aisles and pick-up windows may be located between the building and the right-of-way, but their visibility should be minimized through the use of innovative building architecture and mounded or bermed landscaping to minimize their visual impact from the street. Menu board(s) shall be placed so as to not be visible from the street.
- (k) Drive-through coffee/espresso shops shall have an architectural theme that is unique for a given area as specified by City standards and policies or as determined by the Planning Director; franchise architecture shall be avoided where possible

GENERAL COMMERCIAL (CG) ZONING DISTRICT

SEC. 10-1.1045 - MINIMUM DESIGN AND PERFORMANCE STANDARDS.

The City recognizes that high-quality design of commercial structures can contribute to a positive appearance of neighborhoods and improve the overall character of the community. This Section establishes design and performance standards that shall apply to residential and commercial development allowed in the CG District, including but not limited to cultural, educational, religious or recreational facilities.

Commercial Buildings and Uses.

For commercial buildings and use, refer to the design criteria contained in the City of Hayward Design Guidelines, applicable Special Design Districts, the Hillside Design and Urban/Wildland Interface Guidelines and the following specific criteria and standards:

j. Drive-in Establishments - Special Standards and Conditions.

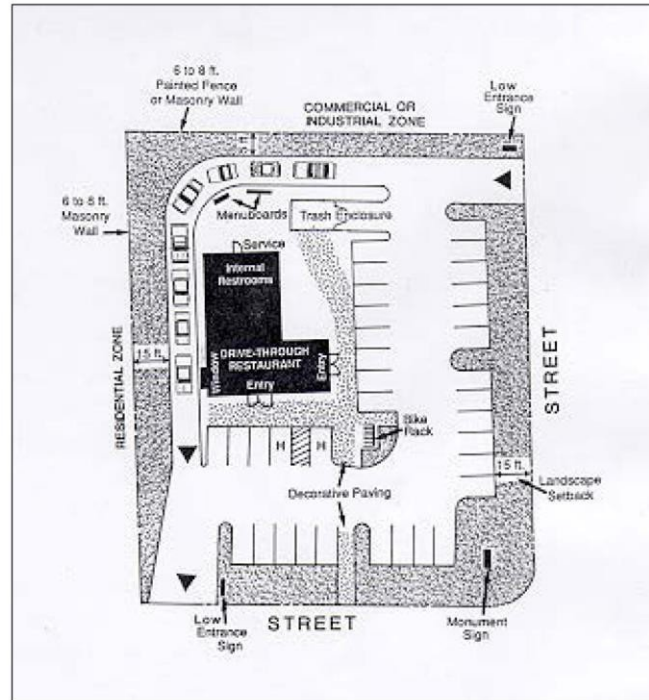
(5) Drive-Through Restaurants.

(a) Drive-in or drive-through restaurants shall be prohibited within ½-mile radius of one another as measured from the building walls of existing or proposed buildings, unless all the following required findings are met:

- i. The drive-in or drive-through restaurants are located within one-half mile from the Interstate 880 (Nimitz Freeway) or State Route 92 (Jackson Freeway) rights-of-way as measured by the existing roadway network;
- ii. The location of the drive-in or drive-through restaurants will not have a substantial adverse effect on vehicular (including bicycle), pedestrian circulation and safety, or transit accessibility;
- iii. The drive-through coffee/espresso shops will not conflict with City adopted goals and policies including, but not limited to, the General Plan and the Bicycle Master Plan; and
- iv. The site is suitable and adequate for the proposed use because the drive-in or drive-through restaurant lanes and service windows will be located at least seventy-five (75) feet away from residential uses and residentially zoned properties.

(b) For each drive-in restaurant a bicycle rack shall be installed with a capacity for at least five bicycles.

- (c) Drive-through lanes installed in connection with drive-in restaurants shall have a capacity for at least eight vehicles, at 20 feet per vehicle, unless adequate access and circulation is provided to minimize spillover onto public property.
- (d) Pedestrian circulation areas located within drive-in restaurant developments with drive-up windows shall consist of decorative paving such as brick, paving stones, or Bomanite.
- (e) Access to bathroom facilities located within drive-in restaurant developments shall be from within the structure, with no direct access from the parking area.
- (f) Roof lights, refrigeration units or other extraneous features which are not integral parts of the main structure, inflexible building prototypes which result in an ability to meet setback and compatibility requirements, and unattractive building elevations visible to customers or passersby are prohibited.
- (g) Identification signs for drive-in restaurants (excluding directional signs and the menu board) shall be limited to one monument sign not to exceed 10 feet in height and 36 square feet per face and two wall signs with letters not to exceed 18 inches in height. Total area for wall signs may include logos not to exceed 24 inches in height.
- (h) All required yard areas abutting streets and not used for vehicle maneuvering or parking shall be landscaped. In all zoning districts a landscaped setback at least 15 feet wide shall be installed parallel to the street right(s) of way or precise plan line(s) and on interior property lines where drive-through aisles abut residential zoning districts.
- (i) Minimum building site (lot area or lease area) shall be 25,000 square feet in area, unless adequate access and cross-parking is provided.
- (j) Drive-through aisles shall not be located between the building and the right-of-way and pick-up windows shall not face the right-of-way unless their visibility is minimized through the use of innovative building architecture and mounded or bermed landscaping to minimize their visual impact from the street. Menu board shall be placed so as to not be visible from the street.
- (k) Drive-through restaurants shall have an architectural theme that is unique for a given area as specified by City standards and policies or as determined by the Planning Director; franchise architecture shall be avoided where possible.



(6) Drive-Through Coffee/Esspresso Shops

(a) Drive-through coffee/espresso shops shall be prohibited within ½-mile radius of one another as measured from the building walls of existing or proposed buildings, unless all the following required findings are met:

- i. The drive-through coffee/espresso shops located within one-half mile from the Interstate 880 (Nimitz Freeway) or State Route 92 (Jackson Freeway) rights-of- way as measured by the existing roadway network;
- ii. The location of the drive-through coffee/espresso shops will not have a substantial adverse effect on vehicular (including bicycle), pedestrian circulation and safety, or transit accessibility;
- iii. The drive-through coffee/espresso shops will not conflict with City adopted goals and policies including, but not limited to, the General Plan and the Bicycle Master Plan; and
- iv. The site is suitable and adequate for the proposed use because the drive-through coffee/espresso shop lanes and service windows will be located at least seventy- five (75) feet away from residential uses and residentially zoned properties.

(b) Drive-through coffee/espresso shop buildings shall not exceed 500 square feet in area.

- (c) Drive-through lanes for drive-up windows shall have a capacity for at least two vehicles, at 20 feet per vehicle, unless adequate access and circulation is provided to minimize spillover onto public property.
- (d) Drive-through lanes shall consist of decorative paving such as brick, paving stones, or Bomanite.
- (e) Public bathroom facilities shall be provided inside the drive-through building, unless public bathroom facilities are located within 200 feet on the same property and are accessible during coffee shop business hours.
- (f) Roof lights, refrigeration units or other extraneous features which are not integral parts of the main structure, inflexible building prototypes which result in an ability to meet setback and compatibility requirements, and unattractive building elevations visible to customers or passersby are prohibited.
- (g) Identification signs for drive-through coffee/espresso shops shall comply with the Hayward Sign Ordinance and shall be limited to one monument sign not to exceed 6 feet in height and two wall signs with letters not to exceed 18 inches in height. Total area for wall signs may include logos not to exceed 24 inches in height.
- (h) All required yard areas abutting streets and not used for vehicle maneuvering or parking shall be landscaped. In all zoning districts a landscaped setback at least 10 feet wide shall be installed parallel to the street right-of-way or precise plan line and on interior property lines where drive-through aisles abut residential zoning districts.
- (i) Minimum building site (lot area or lease area) shall be sufficient to accommodate the building and required circulation, maneuvering and parking.
- (j) Drive-through aisles and pick-up windows may be located between the building and the right-of-way, but their visibility should be minimized through the use of innovative building architecture and mounded or bermed landscaping to minimize their visual impact from the street. Menu board(s) shall be placed to not be visible from the street.
- (k) Drive-through coffee/espresso shops shall have an architectural theme that is unique for a given area as specified by City standards and policies or as determined by the Planning Director; franchise architecture shall be avoided where possible.

HAYWARD CITY COUNCIL

RESOLUTION NO. 18-

Introduced by Council Member _____

RESOLUTION TO ADOPT A ZONING TEXT AMENDMENT TO CHAPTER 10, ARTICLE 1 (ZONING ORDINANCE), SECTIONS 10-1.845.J (5) AND (6); AND 10-1.1045.J (5) AND (6) (MINIMUM DESIGN AND PERFORMANCE STANDARDS) OF THE HAYWARD MUNICIPAL CODE RELATED TO DRIVE-THROUGH RESTAURANTS AND DRIVE-THROUGH COFFEE/ESPRESSO SHOPS IN THE CITY OF HAYWARD

WHEREAS, On May 1, 2018, the United Growth Capital Management, LLC submitted a Zoning Text Amendment request to amend Chapter 10, Article 1 (Zoning Ordinance) of the Hayward Municipal Code (HMC) to allow additional flexibility for the establishment of new drive-through restaurants and drive-through coffee/espresso shops in the City within half-mile of another establishment;

WHEREAS, Current minimum design and performance standards within the Zoning Ordinance for drive-through restaurants and drive-through coffee/espresso shops prohibit the establishment of any drive-through restaurant or drive-through coffee/espresso shop within half-mile radius of another establishment as measured from the building walls of existing or proposed buildings;

WHEREAS, The proposed amendments would allow additional flexibility for the establishment of new drive-in and drive-through restaurants and coffee/espresso shops in the City within half-mile of another establishment if certain required findings can be made related the site location in addition to the findings required for the Administrative or Conditional Use Permit;

WHEREAS, On July 12, 2018, the Planning Commission considered Zoning Text Amendment Application No. 201802227 at a public hearing, and voted (4-0-0), that the City Council approve the Zoning Text Amendment; and

WHEREAS, Notice of the hearing was published in the manner required by law and the hearing was duly held by the City Council on July 24, 2018.

NOW, THEREFORE, BE IT RESOLVED that the City Council hereby finds and determines as follows:

CALIFORNIA ENVIRONMENTAL QUALITY ACT

1. The proposed Zoning Text Amendment is exempt from the California Environmental Quality Act (CEQA) under Section 15061(b)(3), as an activity that is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. The proposed Zoning Text Amendment to the Hayward Zoning Ordinance will allow additional flexibility related to the minimum distance requirements of drive-through establishments from one another. Future projects will be subject to additional CEQA review to evaluate any potential environmental impacts associated with that project.

FINDINGS FOR A ZONING TEXT AMENDMENT TO THE HAYWARD MUNICIPAL CODE

- A. Substantial proof exists that the proposed change will promote the public health, safety, convenience, and general welfare of the residents of Hayward;

The proposed Zoning Text Amendment (ZTA) would allow for flexibility, where appropriate, in the locations that currently conditionally permit the development of drive-through restaurants and expresso shops within the City of Hayward. The ZTA would ensure that drive-throughs be located appropriate by including required findings that would be in addition to those of the Administrative Use Permit (AUP) or Conditional Use Permit (CUP). The proposed Text Amendment would provide additional use permit findings that relate to the geographical location of any potential development site for a drive-through restaurant or expresso shop; the proximity of the site to Interstate-880 and State-Route 92; the impacts on private and public circulation; the establishment of adequate buffers from adjacent residential properties; and the consistency with adopted policies related to multi-modal transportation, streets, and mobility. With the inclusion of these findings and additional analysis required to grant greater flexibility, the proposed Amendment will promote public health by limiting the over-concentration of drive-through establishments in residential areas, and mixed-use areas in the City that are focused on improving and expanding bicycle and pedestrian access, such as Mission Boulevard, Foothill Boulevard, and Downtown Hayward.

- B. The proposed change is in conformance with all applicable, officially adopted policies and plans;

The proposed ZTA would not conflict with the underlying General Plan goals and policies, or the Bicycle Master Plan. The proposed text amendment would support the City's Complete Communities and Complete Streets Strategic Initiative by providing additional flexibility for establishment of drive-through businesses in the City that would not have a detrimental impact on the multi-modal Complete Streets network. The proposed ZTA includes language and verbiage to ensure and strive for ongoing consistency and compatibility with these documents, stipulating that new drive-

through establishments be approved only upon demonstrating that they will not conflict with such long-range goals. Additionally, the proposed ZTA is consistent with the following Land Use and Economic Development General Plan Policies:

- Land Use Policy LU-5.2 - Flexible Land Use Regulations. To maintain flexible land use regulations that allow the establishment of economically productive uses in regional and community centers.
- Economic Development Policy ED-6.7 - Business Incentives. To provide incentives to attract, expand, and retain businesses that offer high quality jobs, generate local sales tax revenue, and/or provide needed goods or services to residents.

C. Streets and public facilities existing or proposed are adequate to serve all uses permitted when the property is reclassified; and

No properties are proposed to be reclassified, rezoned, or amended with this application. Rather, the proposed ZTA would introduce flexibility in where drive-through restaurants and expresso shops are conditionally permitted. Such land uses would still be required to obtain the appropriate review and approval of either a AUP or CUP, based on location and zoning district. The determination of whether the streets and public facilities, existing and proposed are adequate to serve the conditionally permitted uses would be reviewed as part of the standard AUP or CUP development review process.

D. All uses permitted when property is reclassified will be compatible with present and potential future uses, and, further, a beneficial effect will be achieved which is not obtainable under existing regulations.

No properties are proposed to be reclassified, rezoned, or amended with this application. As stated previously, the proposed ZTA introduces flexibility in where drive-through establishments and expresso shops are conditionally permitted. Currently, the Zoning Ordinance does allow for drive-through establishments as conditional uses. However, the minimum design and performance standards for drive-through restaurants and expresso shops prohibit the establishment of similar facilities within a half-mile from each other – as measured from the exterior walls. The proposed Amendment would maintain the existing distance separation but incorporate a mechanism to allow for additional drive-through restaurants within a half-mile of each other upon meeting the new, required findings aimed to prevent an over-centration or addition of drive-throughs in areas not deemed appropriate (i.e. Mission Boulevard, Downtown Hayward, Foothill Boulevard).

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward, based on the foregoing findings, hereby adopts the findings in support of Zoning Text Amendment Application No. 201802227, subject to the adoption of the companion Ordinance.

BE IT RESOLVED that this resolution shall become effective on the date that the companion Ordinance (Ordinance No. 18-__) becomes effective.

IN COUNCIL, HAYWARD, CALIFORNIA __ of September 2018.

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
 MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST:

City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



COUNCIL ECONOMIC DEVELOPMENT COMMITTEE

MEETING MINUTES – April 2, 2018

CALL TO ORDER: Mayor Halliday called the meeting to order at 4:00 p.m.

ATTENDANCE:

Committee Member	Present 4/2/18	All Meetings Year to Date		Meetings Mandated By Resolution	
		Present	Absent	Present	Absent
Michael Ly		3	2	3	2
Didacus-Jeff Joseph Ramos	✓	4	1	4	1
Mayor Halliday (Chair)	✓	5	0	5	0
Council Member Márquez	✓	5	0	5	0
Council Member Mendall	✓	5	0	5	0

OTHERS IN ATTENDANCE:

Maria Hurtado, Assistant City Manager; Stacey Bristow, Interim Director of Development Services; Micah Hinkle, Economic Development Manager; Paul Nguyen, Economic Development Specialist; Ramona Thomas, Economic Development Specialist; Marcus Martinez, Assistant Planner; Suzanne Philis, Senior Secretary; from United Growth: CEO Brad LaRue, Vice President of Capital Management Carmelita Botelho, and Development Manager Futaba Alizoti

PUBLIC COMMENTS

Hayward Chamber of Commerce President and CEO Kim Huggett distributed a By the Numbers flyer that highlighted Chamber accomplishments. Mr. Huggett noted 40 free small business workshops had been held in the last 40 months (many in cooperation with the Alameda County Small Business Development Center and City of Hayward), and that export certificates had been sent to 50 countries.

Mayor Halliday announced that Hayward won two out of eight categories at the East Bay Economic Development Alliance Innovation Awards on Thursday, March 29th at the Fox Theater in Oakland. She said Therm-x (maker of custom components for the semi-conductor industry) won the Advanced Manufacturing category, and Reflexion (developing a revolutionary device for the detection and prevention of cancer) won the Life Sciences category. She commented that Hayward has had finalists for the last three years. Council Member Mendall pointed out that Hayward was the only Bay area city to have two winners.

1. APPROVAL OF MINUTES OF SPECIAL MEETING MARCH 5, 2018

A motion to approve minutes with one minor change was made by Council Member Márquez with a second by Council Member Mendall. Minutes from the March 5, 2018 Regular Meeting were approved with Member Ly absent.

Staff distributed comments from Member Ramos on the Regional Minimum Wage Inventory which was presented and discussed at the March 5th meeting. Member Ramos was unable to attend the meeting.

2. PRELIMINARY CONCEPT REVIEW – UNITED GROWTH DRIVE THROUGH – 2429 WHIPPLE ROAD

Economic Development Manager Hinkle introduced the project noting the feedback desired was also a review of the City's drive-thru policy.

Economic Development Specialist Thomas said United Growth Capital Management specialized in the development and redevelopment of first-class retail centers and noted they were interested in building a drive-thru at Wiegman and Whipple Roads in the Industrial area, but current regulations prohibited two drive-thru restaurants being located within a half-mile of one another. She said the proposed location was within the 880 Retail Area and provided a map displaying existing drive-thru restaurants and their half-mile radii.

Assistant Planner Martinez explained that under the General Commercial zoning district an applicant was prohibited from applying for an Administrative Use permit to build a drive-thru restaurant because two drive-thru restaurants could not be located within a half-mile of one another. He said staff was seeking high-level feedback related to approval of a Zoning Text Amendment that would allow a "special required finding" for this and future drive-thru restaurants to locate within that half-mile radius.

United Growth Vice President of Capital Management Carmelita Botelho explained that because the cost of doing business was so expensive in California, they were having trouble finding a non-drive-thru tenant for the site. She said United Growth was seeking feedback to determine if the site was worth pursuing.

United Growth CEO Brad LaRue said they had been working hard to find a tenant at this site for the last four years. He said that Panera Bread, Noodles & Co., and Habit Burger had all opted out when a drive-thru was not an option.

Council Member Mendall commented that the provided leakage data (type of retail businesses that weren't already present in the area) didn't match past reports. Manager Hinkle explained that the data provided by United Growth was for a 5-mile radius from the site, not city-wide.

Council Member Mendall said that, in general, he was pleased that Hayward made it difficult for drive-thru restaurants because most offered unhealthy food, paid low wages, and generated tons of litter. He said he would relax the City's hard no and consider a variance, but acknowledged that that would generate many applications so he wanted to make his expectations clear.

Council Member Mendall listed the following expectations: 1) The incoming drive-thru restaurant must be something new; either the first of its kind in Hayward, or maybe the second; 2) The litter component must be resolved so the City alone wasn't responsible for the cost and process of clean-up; and 3) The restaurant offered higher base wages, for example \$15 regardless of the City rate. If all three expectations were met, Council Member Mendall said he would enthusiastically vote to approve the business.

Council Member Márquez asked if a Text Amendment would change the City's zoning code. Assistant Planner Martinez said yes, the Amendment would have City-wide implications, but for this request, site specific approval. Economic Development Manager Hinkle noted the Text Amendment could be a driver for auto-oriented locations not near neighborhoods but in existing high traffic areas.

Assistant Planner Martinez explained that if the Text Amendment was adopted, drive-thru restaurants would still not be permitted by-right, but could seek approval.

Council Member Márquez asked about the timeline for this project and Assistant Planner Martinez said the Text Amendment would have to be approved first. Interim Director of Development Services Bristow said that would take approximately three to four months. Council Member Márquez asked if the Amendment would go straight to Council and she was told the Planning Commission would review first.

Economic Development Manager Hinkle noted there were only two locations still available in the City that allowed a drive-thru restaurant by-right and Starbucks had submitted applications for both locations.

Council Member Márquez commented that the site on Wiegman was not visible from I-880 and she asked about signage. Interim Director of Development Services Bristow said standard sign regulations would apply to the site or United Growth could ask for a variance. Assistant Planner Martinez said the sign could be bigger because of the location. CEO LaRue said a monument sign had been requested on an earlier proposal.

Council Member Márquez said for her approval the restaurant would have to offer healthy choices. She asked where the nearest drive-thru Panera Bread was located and was told Concord. She said Panera would be the type of restaurant she would approve.

Member Ramos asked why a half-mile radius was used instead of a quarter-mile. Assistant Planner Martinez said the regulations were carried forward from the 80s or 90s and should perhaps be reviewed. Interim Director of Development Services Bristow noted the Industrial regulations were currently being updated.

Member Ramos asked if the regulations needed to be uniform and Interim Director of Development Services Bristow said no.

Member Ramos said that he liked that the proposed drive-thru wouldn't impact traffic on Whipple Road. He said he would support a Panera at the site and then commented that communities don't usually name the tenant. He asked if anything prohibited the City from naming preferred tenants. Council Member Mendall said that was why he was focusing on preferred criteria.

Member Ramos said the half-mile radius could be adjusted, but the staff report's other proposed restrictions were valid. He said he would prefer a mom n' pop business or a franchise not already in California; he wanted something unique for Hayward. He said the design of the proposal was fine. Member Ramos said some flexibility at this site might benefit the City.

Mayor Halliday commented that although the City was working regionally to be more walkable she acknowledged a drive-thru was appropriate for the already high-traffic area and that United Growth had been unsuccessful in finding a non-drive-thru tenant.

Mayor Halliday noted that Hayward already had a Panera, although it wasn't a drive-thru, and said she also preferred a restaurant with healthy choices. She asked about vegan restaurants like Amy's Kitchen and noted the closest one was in Corte Madera.

Mayor Halliday said staff should work to craft regulations that didn't open the door too wide for drive-thru restaurants and agreed with Council Member Mendall that litter was a problem. She said the City knew about litter and frequently organized clean ups. Member Ramos commented that trash from fast food restaurants was not anonymous.

Mr. LaRue said they could place more garbage cans on the site to make it more convenient for patrons to throw away their trash. Members said that may not be enough and discussed the problem of litter generated by drive-thru restaurants. Member Ramos noted the McDonalds downtown had employees pick up trash in the area around the restaurant.

Council Member Márquez mentioned another restaurant she would consider for the site. Ms. Botelho commented that most mom n' pop establishments couldn't afford the rents associated with a new development. She said it might be affordable if the project entailed the rehab of an existing building.

Mr. LaRue asked for confirmation that there was enough support for a drive-thru and said the City could craft the language that created the subjectivity for approvals.

Mayor Halliday confirmed the restaurant would also have the option to sit down to eat rather than drive-thru. Mr. LaRue said a drive-thru would allow the tenant to supplement revenues and afford the market rent. Ms. Botelho noted workers in the area might appreciate having the choice of driving thru when they are in a hurry, sitting when they have more time, and enjoying patio seating on a nice day.

Mr. LaRue noted because the site was small there were limited options and asked the Committee for leniency noting United Growth had already spent a lot of money on the site.

Council Member Mendall noted the Jack in the Box at Fairway Plaza, in trade for Council's approval to stay open 24 hours, had an agreement in place that required them to pick up litter for a quarter of a mile along the par course across Mission Boulevard from the restaurant. He suggested that arrangement be used as a model.

Mayor Halliday said the City appreciated the efforts of United Growth and acknowledged the site was different because of the auto-intensity of the area. She said the City wanted to work with United Growth to find a tenant, noted only three Council Members were present, but thought other Council Members would have similar concerns and comments. Council Member Mendall agreed.

3. FUTURE MEETING TOPICS AS OF APRIL 2, 2018

In response to a request made by Member Ramos, Economic Development Manager Hinkle presented a table prepared by Senior Secretary Philis that described three different types of Bucks Programs; incentive programs that encouraged local spending.

Member Ramos said the table was exactly what he was looking for and commented that community-run programs like the Downtown Hayward Passport Program, which the City started but handed off to local merchants, had been very successful. He said the examples provided were more money-oriented and suggested neighborhood-driven programs. Member Ramos said some areas don't feel like part of Hayward and Bucks programs could help unify the City.

Council Member Mendall said he still wanted to see a report on the changing demand of retail tied into an analysis of sales tax revenues generated by housing versus retail uses. Manager Hinkle said he was trying to produce those reports.

Mayor Halliday said she liked the idea of improved marketing of local events (#2 on the list) because it would tie in with the City's commitment to recognize different cultures.

Council Member Márquez asked what was on the schedule for May. Manager Hinkle said the agenda was still being developed, but he hoped to present a market trend analysis of retail and continue down the list of Meeting Topics.

Member Ramos acknowledged the Economic Development Division was down staff, but he suggested a catalog or pocket guide of local retail to help introduce local businesses to new people.

Member Ramos also commented that although the Makerspace was a good place to explore a new business, and the workshops provided by the Chamber were helpful to small business, people needed a place where they can learn how to start a new business and then start it.

COMMITTEE MEMBER ANNOUNCEMENTS AND REFERRALS

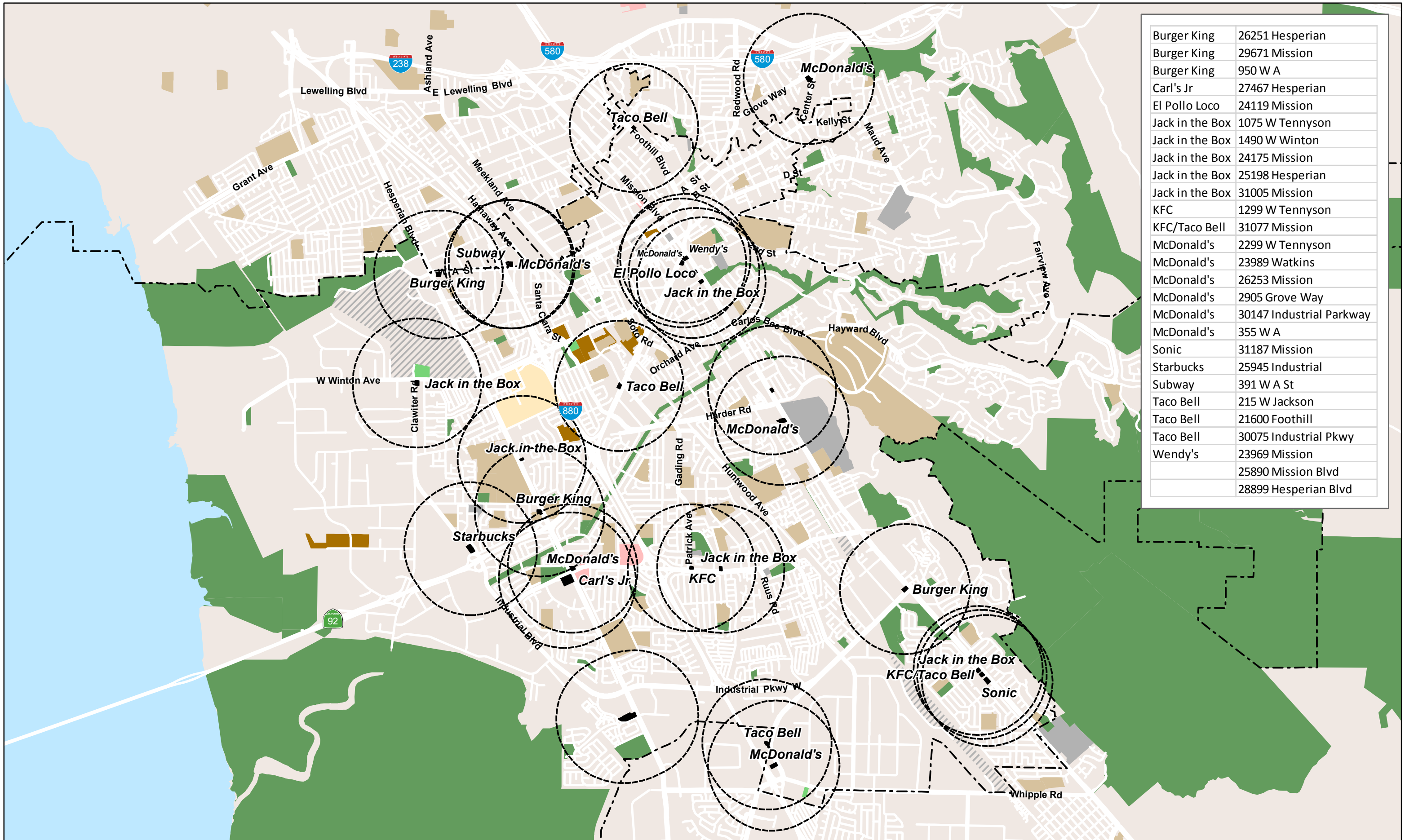
Economic Development Manager Hinkle announced that today's meeting was the last for Economic Development Specialist Nguyen who had accepted the Economic Development Manager position with the City of Fairfield. He said the City was sorry to see Specialist Nguyen leave, but understood the desire to advance.

Specialist Nguyen thanked Committee members, and the City, for the opportunity to serve as Industrial Specialist. He noted in the three years and seven months since he'd joined the team he had assisted 114 businesses, attracted 40 to Hayward, supported the addition of 819 jobs and facilitated real estate investments totaling \$136,017,388.

Council Member Mendall and Mayor Halliday said they were very sorry to see him go.

Chamber President Huggett said the City must create an equal and higher value replacement.

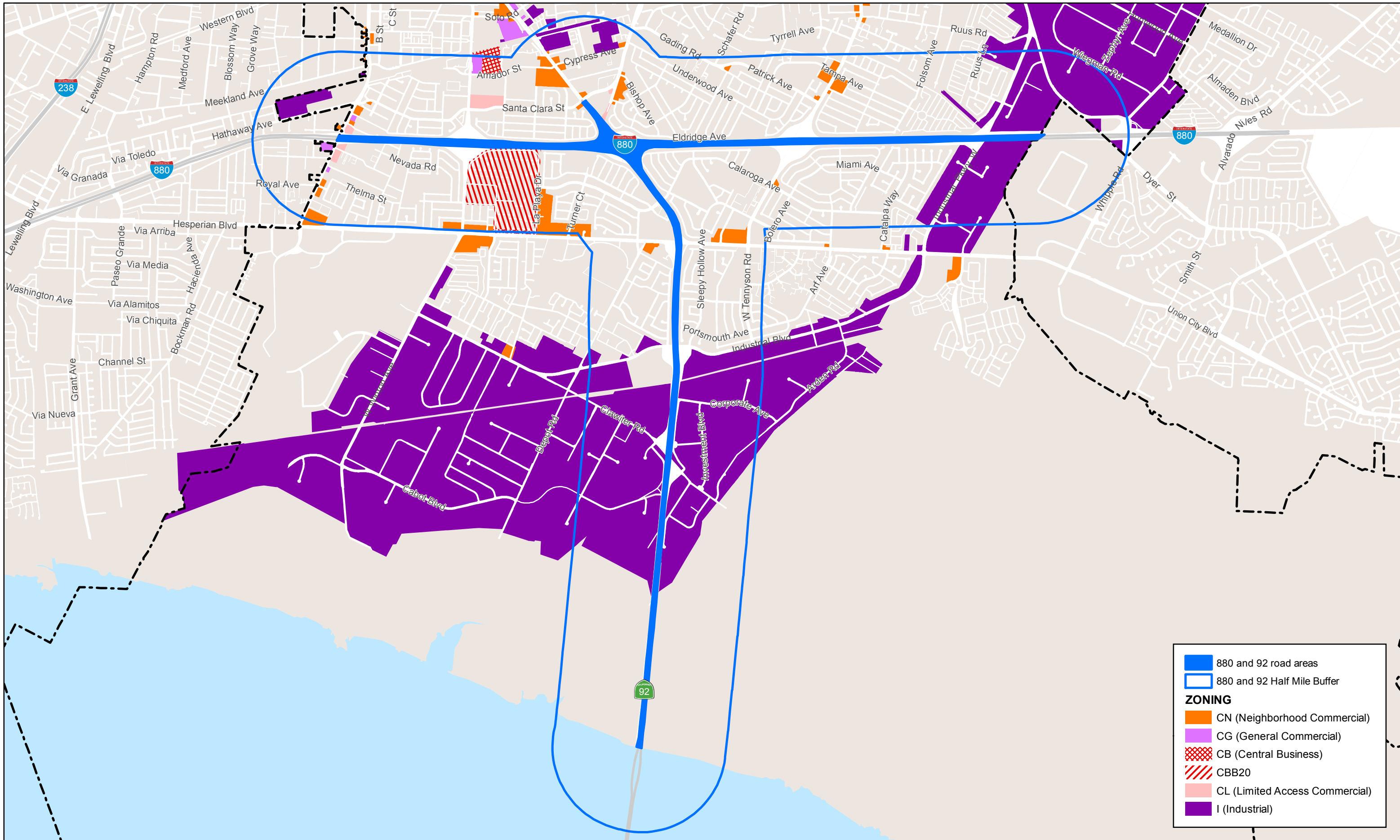
ADJOURNMENT: The meeting was adjourned at 5:19 p.m.



Burger King	26251 Hesperian
Burger King	29671 Mission
Burger King	950 W A
Carl's Jr	27467 Hesperian
El Pollo Loco	24119 Mission
Jack in the Box	1075 W Tennyson
Jack in the Box	1490 W Winton
Jack in the Box	24175 Mission
Jack in the Box	25198 Hesperian
Jack in the Box	31005 Mission
KFC	1299 W Tennyson
KFC/Taco Bell	31077 Mission
McDonald's	2299 W Tennyson
McDonald's	23989 Watkins
McDonald's	26253 Mission
McDonald's	2905 Grove Way
McDonald's	30147 Industrial Parkway
McDonald's	355 W A
Sonic	31187 Mission
Starbucks	25945 Industrial
Subway	391 W A St
Taco Bell	215 W Jackson
Taco Bell	21600 Foothill
Taco Bell	30075 Industrial Pkwy
Wendy's	23969 Mission
	25890 Mission Blvd
	28899 Hesperian Blvd



880 & 92 - Half Mile Buffer with Zoning



880 and 92 road areas

880 and 92 Half Mile Buffer

ZONING

- CN (Neighborhood Commercial)
- CG (General Commercial)
- CB (Central Business)
- CBB20
- CL (Limited Access Commercial)
- I (Industrial)



CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

File #: LB 18-043

DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Human Resources

SUBJECT

Adoption of Resolution Approving an Amendment to the City of Hayward Salary Plan for Fiscal Year 2019

RECOMMENDATION

That the City Council adopts the attached Resolution (Attachment II) and approves an amendment to the City of Hayward Salary Plan for fiscal year 2019 ("FY 2019"), which designates all classifications and the corresponding salary range for employment in the City of Hayward government as of July 23, 2018, superseding Resolution No. 18-136 and all amendments thereto.

SUMMARY

After a public hearing on July 12, 2018, the Personnel Commission recommends that the City Council adopts an amended FY 2019 Salary Plan for the classified service. Changes to the Salary Plan for the classified service include addition of Senior Fire Technician, Senior Water Resources Engineer, and the salary equity adjustment to Network Systems Specialist. Additionally, the FY 2019 Salary Plan has been amended to reflect the rolling of EMT (2%) incentive pay and Paramedic (8%) incentive pay, for a total of 10% to base pay of the Fire Chief classification.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Resolution
Attachment III	FY 2019 Salary Plan



DATE: July 24, 2018

TO: Mayor and City Council

FROM: Director of Human Resources

SUBJECT: Adoption of Resolution Approving an Amendment to the City of Hayward Salary Plan for Fiscal Year 2019

RECOMMENDATION

That the City Council adopts the attached Resolution (Attachment II) and approves an amendment to the City of Hayward Salary Plan for fiscal year 2019 (“FY 2019”), which designates all classifications and the corresponding salary range for employment in the City of Hayward government as of July 23, 2018, superseding Resolution No. 18-136 and all amendments thereto.

SUMMARY

After a public hearing on July 12, 2018, the Personnel Commission recommends that the City Council adopts an amended FY 2019 Salary Plan for the classified service. Changes to the Salary Plan for the classified service include addition of Senior Fire Technician, Senior Water Resources Engineer, and the salary equity adjustment to Network Systems Specialist. Additionally, the FY 2019 Salary Plan has been amended to reflect the rolling of EMT (2%) incentive pay and Paramedic (8%) incentive pay, for a total of 10% to base pay of the Fire Chief classification.

BACKGROUND/DISCUSSION

1. Senior Fire Technician – This position was created to perform advanced paraprofessional and technical work as development project permits have rapidly increased in the Office of the Fire Marshal. The salary range is set internally to mirror that of the Senior Permit Technician, which is \$35.19 per hour at Step A and \$41.74 per hour at Step E.
2. Senior Water Resources Engineer – This position was added to provide professional level technical support to the development of sustainable water supplies. This classification will provide technical expertise and support to the Water Resources Manager on a variety of supply initiatives such as managing development of technical tools, implementing water conservation activities, and preparing technical analyses regarding water supply planning issues to name a few. The salary range is set internally to mirror that of the Senior Utilities Engineer, which is \$58.40 per hour at Step A and \$70.97 per hour at Step E.

3. Network Systems Specialist – Recruitment efforts to fill a vacancy in this classification have been extremely difficult. Since 2016, three recruitment efforts failed to produce a pool of candidates who possessed a sufficient level of technical knowledge to fill this vacancy. Additionally, based on a 2018 total compensation survey between Hayward and comparable Bay Area cities, the Network Systems Specialist falls approximately 10% below comparable positions with equivalent essential job requirements and functions. To remain competitive with our comparable cities and maintain Hayward’s goal of mid-market level salaries, this position will receive a salary equity adjustment of 10%, which is \$49.16 per hour at Step A and \$59.76 per hour at Step E.

In addition to the changes for the classified service positions, the FY 2019 Salary Plan is being amended to reflect an adjustment to the salary of the Fire Chief. Consistent with the recently negotiated changes to the Hayward Firefighters Union, Local 1909 (“1909”) MOU, the FY 2019 Salary Plan has been revised to reflect the rolling in of emergency medical technician (2%) and paramedic (8%) incentive pays into base pay. Having the emergency medical technician certification is a requirement for the paramedic certification, which is a minimum requirement for the firefighter position and all new firefighters must have the paramedic certification. The Fire Chief has consistently possessed the paramedic certification and received the 10% incentive pay. Although he will be expected to maintain a current certification, it is not appropriate to pay as an incentive because it is a basic requirement for the Firefighting profession. The proposed salary range for the Fire Chief position will be set at \$91.85 per hour at Step A and \$111.65 at Step E. In addition to having the incentive pays rolled into base salary, the Fire Chief will also begin contributing 1% to OPEB consistent with contributions made by the HFOA and 1909.

FISCAL IMPACT

Senior Fire Technician – There is no fiscal impact associated with the addition of this position. It was proposed and approved as a budget neutral change during the FY 2019 budget process. The annual cost of approximately \$126,730 was offset by the deletion of two Fire Technician positions.

Senior Water Resources Engineer – The fiscal impact of creating this classification is approximately \$200,000. This position will be funded entirely from the Enterprise Funds with no impact to the General Fund.

Network Systems Specialist – The fiscal impact of the salary equity adjustment and benefits is approximately \$15,913 and will be funded by the General Fund.

Fire Chief- Rolling EMT and Paramedic incentive pay into base salary has no impact to the General Fund. For FY 2019 – FY 2021, the Fire Chief’s contribution to OPEB results in a total savings of approximately \$3,200 when compared to the Budget Model for the same period.

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the City Council's Strategic Initiatives.

NEXT STEPS

The additional positions and salary adjustments will be implemented by the Human Resources and Finance departments effective July 23, 2018. Any necessary budget changes will be made during the FY 2019 mid-year review process.

Prepared by: Anthony Phillip, Human Resources Analyst II

Recommended by: Nina S. Collins, Director of Human Resources

Approved by:



Kelly McAdoo, City Manager

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION APPROVING THE AMENDED FISCAL YEAR 2019 SALARY PLAN DESIGNATING POSITIONS OF EMPLOYMENT IN "THE CITY GOVERNMENT OF THE CITY OF HAYWARD AND SALARY RANGE; AND SUPERSEDING RESOLUTION NO. 18-136 AND ALL AMENDMENTS THERETO

BE IT RESOLVED by the City Council of the City of Hayward, as follows:

Section 1. That a revised Positions and Salaries Schedule relating to the positions of employment in the City of Hayward, and the hourly rates of pay for those positions, is hereby set forth in Attachment "III," attached hereto and made a part hereof. The positions enumerated under the columns headed "Classification Title" are hereby designated as the positions of employment in the City of Hayward, and the hourly, bi-weekly, monthly, and annual rates of pay shown in the adjacent rows under the headings "Step A" through "Step E" are the salary rates or the maximum rates of pay for such positions.

Section 2. Salaries paid to occupants of said positions shall be administered in accordance with the Personnel Rules and Memoranda of Understanding and Side Letter Agreements approved by the City Council and currently in effect.

Section 3. All class titles used herein refer to the specifications of the position classification plan as reviewed by the Personnel Commission of the City of Hayward, or as set forth in the City Charter.

Section 4. The City Manager may approve in advance of an established effective date, payment to certain classifications in the Management Unit of all or a portion of a general salary increase previously approved by the City Council. Such advance payments shall be made only for those management classifications where the salary range is less than ten percent above an immediately subordinate classification. The amount of advance payment approved by the City Manager shall not exceed the amount required to establish a ten percent salary differential between the affected classifications. The City Manager shall advise the City Council and each bargaining unit in advance of any payments made pursuant to the provisions of this section.

Section 5. The salary ranges set forth in Attachment "III" shall be revised to reflect salary changes provided in any Memorandum of Understanding, Side Letters of Agreement, or resolution setting forth the wages, hours, and other terms and conditions of employment for a bargaining unit or group of unrepresented employees of the City. Any revisions made

pursuant to the provisions of this section shall be incorporated into a document prepared by the Human Resources Director and distributed to affected employees or their representatives that reflects the date of the revision and cites both the authority provided by this section and the provision of the memorandum or resolution being effectuated by the revision.

Section 6. This resolution supersedes Resolution No. 18-136 and all amendments thereto.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2018

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
CITY ELECTED OFFICIALS/APPOINTED OFFICERS/EXECUTIVES								
MAYOR	E100	Unclassified	Hourly					
			Bi-Weekly					
			Monthly					
			Annual				39,960.00	
CITY COUNCIL	E110	Unclassified	Hourly					
			Bi-Weekly					
			Monthly					
			Annual				24,975.00	
CITY MANAGER	A120	Unclassified	Hourly				122.15	
			Bi-Weekly				9,772.00	
			Monthly				21,172.67	
			Annual				254,072.00	
CITY ATTORNEY	A100	Unclassified	Hourly				107.97	
			Bi-Weekly				8,637.60	
			Monthly				18,714.80	
			Annual				224,577.60	
CITY CLERK	A110	Unclassified	Hourly				66.54	
			Bi-Weekly				5,323.20	
			Monthly				11,533.60	
			Annual				138,403.20	
ASSISTANT CITY MANAGER	U735	Unclassified	Hourly	92.08	96.69	101.52	106.59	111.92
			Bi-Weekly	7,366.40	7,735.20	8,121.60	8,527.20	8,953.60
			Monthly	15,960.53	16,759.60	17,596.80	18,475.60	19,399.47
			Annual	191,526.40	201,115.20	211,161.60	221,707.20	232,793.60
CHIEF OF POLICE	P500	Unclassified	Hourly	91.91	96.50	101.33	106.39	111.71
			Bi-Weekly	7,352.80	7,720.00	8,106.40	8,511.20	8,936.80
			Monthly	15,931.07	16,726.67	17,563.87	18,440.93	19,363.07
			Annual	191,172.80	200,720.00	210,766.40	221,291.20	232,356.80
COMMUNICATIONS AND MARKETING OFFICER / PUBLIC INFORMATION OFFICER (PIO)	U311	Unclassified	Hourly	55.26	58.02	60.92	63.98	67.18
			Bi-Weekly	4,420.80	4,641.60	4,873.60	5,118.40	5,374.40
			Monthly	9,578.40	10,056.80	10,559.47	11,089.87	11,644.53
			Annual	114,940.80	120,681.60	126,713.60	133,078.40	139,734.40
DIRECTOR OF DEVELOPMENT SERVICES	U700	Unclassified	Hourly	80.01	84.01	88.21	92.63	97.26
			Bi-Weekly	6,400.80	6,720.80	7,056.80	7,410.40	7,780.80
			Monthly	13,868.40	14,561.73	15,289.73	16,055.87	16,858.40
			Annual	166,420.80	174,740.80	183,476.80	192,670.40	202,300.80
DIRECTOR OF FINANCE	U725	Unclassified	Hourly	80.75	84.78	89.02	93.48	98.15
			Bi-Weekly	6,460.00	6,782.40	7,121.60	7,478.40	7,852.00
			Monthly	13,996.67	14,695.20	15,430.13	16,203.20	17,012.67
			Annual	167,960.00	176,342.40	185,161.60	194,438.40	204,152.00
DIRECTOR OF HUMAN RESOURCES	U705	Unclassified	Hourly	77.95	81.84	85.94	90.24	94.74
			Bi-Weekly	6,236.00	6,547.20	6,875.20	7,219.20	7,579.20
			Monthly	13,511.33	14,185.60	14,896.27	15,641.60	16,421.60
			Annual	162,136.00	170,227.20	178,755.20	187,699.20	197,059.20
DIRECTOR OF INFORMATION TECHNOLOGY / CHIEF INFORMATION OFFICER (CIO)	U720	Unclassified	Hourly	78.25	82.16	86.27	90.58	95.11
			Bi-Weekly	6,260.00	6,572.80	6,901.60	7,246.40	7,608.80
			Monthly	13,563.33	14,241.07	14,953.47	15,700.53	16,485.73
			Annual	162,760.00	170,892.80	179,441.60	188,406.40	197,828.80
DIRECTOR OF LIBRARY SERVICES	U710	Unclassified	Hourly	77.31	81.17	85.24	89.49	93.98
			Bi-Weekly	6,184.80	6,493.60	6,819.20	7,159.20	7,518.40
			Monthly	13,400.40	14,069.47	14,774.93	15,511.60	16,289.87
			Annual	160,804.80	168,833.60	177,299.20	186,139.20	195,478.40
DIRECTOR OF MAINTENANCE SERVICES	U715	Unclassified	Hourly	77.31	81.17	85.24	89.49	93.98
			Bi-Weekly	6,184.80	6,493.60	6,819.20	7,159.20	7,518.40
			Monthly	13,400.40	14,069.47	14,774.93	15,511.60	16,289.87
			Annual	160,804.80	168,833.60	177,299.20	186,139.20	195,478.40
DIRECTOR OF PUBLIC WORKS	U730	Unclassified	Hourly	83.71	87.90	92.29	96.92	101.75
			Bi-Weekly	6,696.80	7,032.00	7,383.20	7,753.60	8,140.00
			Monthly	14,509.73	15,236.00	15,996.93	16,799.47	17,636.67
			Annual	174,116.80	182,832.00	191,963.20	201,593.60	211,640.00
FIRE CHIEF	F800	Unclassified	Hourly	91.85	96.43	101.26	106.33	111.65
			Bi-Weekly	7,348.00	7,714.40	8,100.80	8,506.40	8,932.00
			Monthly	15,920.67	16,714.53	17,551.73	18,430.53	19,352.67
			Annual	191,048.00	200,574.40	210,620.80	221,166.40	232,232.00

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
CITY WIDE ADMINISTRATIVE/ANALYTICAL SUPPORT								
SENIOR MANAGEMENT ANALYST	H115	Classified	Hourly	49.86	52.33	54.96	57.71	60.58
			Bi-Weekly	3,988.80	4,186.40	4,396.80	4,616.80	4,846.40
			Monthly	8,642.40	9,070.53	9,526.40	10,003.07	10,500.53
			Annual	103,708.80	108,846.40	114,316.80	120,036.80	126,006.40
MANAGEMENT ANALYST II	H110	Classified	Hourly	45.34	47.61	49.99	52.48	55.10
			Bi-Weekly	3,627.20	3,808.80	3,999.20	4,198.40	4,408.00
			Monthly	7,858.93	8,252.40	8,664.93	9,096.53	9,550.67
			Annual	94,307.20	99,028.80	103,979.20	109,158.40	114,608.00
MANAGEMENT ANALYST I	H105	Classified	Hourly	41.22	43.29	45.44	47.71	50.10
			Bi-Weekly	3,297.60	3,463.20	3,635.20	3,816.80	4,008.00
			Monthly	7,144.80	7,503.60	7,876.27	8,269.73	8,684.00
			Annual	85,737.60	90,043.20	94,515.20	99,236.80	104,208.00
EXECUTIVE ASSISTANT	U315	Unclassified	Hourly	38.01	39.76	41.56	43.34	45.25
			Bi-Weekly	3,040.80	3,180.80	3,324.80	3,467.20	3,620.00
			Monthly	6,588.40	6,891.73	7,203.73	7,512.27	7,843.33
			Annual	79,060.80	82,700.80	86,444.80	90,147.20	94,120.00
ADMINISTRATIVE SUPERVISOR	H120	Classified	Hourly	36.33	38.14	40.05	42.04	44.15
			Bi-Weekly	2,906.40	3,051.20	3,204.00	3,363.20	3,532.00
			Monthly	6,297.20	6,610.93	6,942.00	7,286.93	7,652.67
			Annual	75,566.40	79,331.20	83,304.00	87,443.20	91,832.00
ADMINISTRATIVE SECRETARY	C120	Classified	Hourly	33.30	34.68	36.03	37.39	38.88
			Bi-Weekly	2,664.00	2,774.40	2,882.40	2,991.20	3,110.40
			Monthly	5,772.00	6,011.20	6,245.20	6,480.93	6,739.20
			Annual	69,264.00	72,134.40	74,942.40	77,771.20	80,870.40
SENIOR SECRETARY	C115	Classified	Hourly	30.44	31.63	32.92	34.12	35.44
			Bi-Weekly	2,435.20	2,530.40	2,633.60	2,729.60	2,835.20
			Monthly	5,276.27	5,482.53	5,706.13	5,914.13	6,142.93
			Annual	63,315.20	65,790.40	68,473.60	70,969.60	73,715.20
SECRETARY	C110	Classified	Hourly	26.78	28.01	29.42	30.79	32.25
			Bi-Weekly	2,142.40	2,240.80	2,353.60	2,463.20	2,580.00
			Monthly	4,641.87	4,855.07	5,099.47	5,336.93	5,590.00
			Annual	55,702.40	58,260.80	61,193.60	64,043.20	67,080.00
ADMINISTRATIVE CLERK II	C105	Classified	Hourly	25.68	26.73	27.81	29.06	30.49
			Bi-Weekly	2,054.40	2,138.40	2,224.80	2,324.80	2,439.20
			Monthly	4,451.20	4,633.20	4,820.40	5,037.07	5,284.93
			Annual	53,414.40	55,598.40	57,844.80	60,444.80	63,419.20
ADMINISTRATIVE CLERK I	C100	Classified	Hourly	22.60	23.80	25.01	26.34	27.72
			Bi-Weekly	1,808.00	1,904.00	2,000.80	2,107.20	2,217.60
			Monthly	3,917.33	4,125.33	4,335.07	4,565.60	4,804.80
			Annual	47,008.00	49,504.00	52,020.80	54,787.20	57,657.60
ADMINISTRATIVE INTERN	Z120	Classified	Hourly				15.00	20.00
			Bi-Weekly				1,200.00	1,600.00
			Monthly				2,600.00	3,466.67
			Annual				31,200.00	41,600.00
MAIL CLERK	C410	Classified	Hourly			15.45	16.22	17.04
			Bi-Weekly			1,236.00	1,297.60	1,363.20
			Monthly			2,678.00	2,811.47	2,953.60
			Annual			32,136.00	33,737.60	35,443.20
CITY WIDE ENGINEERING								
SENIOR CIVIL ENGINEER	H240	Classified	Hourly	58.40	61.31	64.39	67.60	70.97
			Bi-Weekly	4,672.00	4,904.80	5,151.20	5,408.00	5,677.60
			Monthly	10,122.67	10,627.07	11,160.93	11,717.33	12,301.47
			Annual	121,472.00	127,524.80	133,931.20	140,608.00	147,617.60
ASSOCIATE CIVIL ENGINEER	T215	Classified	Hourly	47.34	49.72	52.14	54.79	57.46
			Bi-Weekly	3,787.20	3,977.60	4,171.20	4,383.20	4,596.80
			Monthly	8,205.60	8,618.13	9,037.60	9,496.93	9,959.73
			Annual	98,467.20	103,417.60	108,451.20	113,963.20	119,516.80
ASSISTANT CIVIL ENGINEER	T210	Classified	Hourly	40.78	42.89	45.08	47.26	49.62
			Bi-Weekly	3,262.40	3,431.20	3,606.40	3,780.80	3,969.60
			Monthly	7,068.53	7,434.27	7,813.87	8,191.73	8,600.80
			Annual	84,822.40	89,211.20	93,766.40	98,300.80	103,209.60

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
CITY WIDE MAINTENANCE								
ELECTRICIAN II	M410	Classified	Hourly	42.56	44.26	46.00	47.95	49.93
			Bi-Weekly	3,404.80	3,540.80	3,680.00	3,836.00	3,994.40
			Monthly	7,377.07	7,671.73	7,973.33	8,311.33	8,654.53
			Annual	88,524.80	92,060.80	95,680.00	99,736.00	103,854.40
ELECTRICIAN I	M405	Classified	Hourly	38.71	40.29	41.90	43.65	45.42
			Bi-Weekly	3,096.80	3,223.20	3,352.00	3,492.00	3,633.60
			Monthly	6,709.73	6,983.60	7,262.67	7,566.00	7,872.80
			Annual	80,516.80	83,803.20	87,152.00	90,792.00	94,473.60
MAINTENANCE WORKER	M305	Classified	Hourly	28.63	29.79	31.02	32.08	33.36
			Bi-Weekly	2,290.40	2,383.20	2,481.60	2,566.40	2,668.80
			Monthly	4,962.53	5,163.60	5,376.80	5,560.53	5,782.40
			Annual	59,550.40	61,963.20	64,521.60	66,726.40	69,388.80
LABORER	M200 M300 M830 M905	Classified	Hourly	25.15	26.08	27.12	28.23	29.23
			Bi-Weekly	2,012.00	2,086.40	2,169.60	2,258.40	2,338.40
			Monthly	4,359.33	4,520.53	4,700.80	4,893.20	5,066.53
			Annual	52,312.00	54,246.40	56,409.60	58,718.40	60,798.40
CITY ATTORNEY DEPARTMENT								
ASSISTANT CITY ATTORNEY	U210	Classified	Hourly	65.46	68.73	72.17	75.78	79.57
			Bi-Weekly	5,236.80	5,498.40	5,773.60	6,062.40	6,365.60
			Monthly	11,346.40	11,913.20	12,509.47	13,135.20	13,792.13
			Annual	136,156.80	142,958.40	150,113.60	157,622.40	165,505.60
DEPUTY CITY ATTORNEY II	U205	Classified	Hourly	54.10	56.79	59.64	62.61	65.76
			Bi-Weekly	4,328.00	4,543.20	4,771.20	5,008.80	5,260.80
			Monthly	9,377.33	9,843.60	10,337.60	10,852.40	11,398.40
			Annual	112,528.00	118,123.20	124,051.20	130,228.80	136,780.80
DEPUTY CITY ATTORNEY I	U200	Classified	Hourly	49.18	51.64	54.22	56.93	59.77
			Bi-Weekly	3,934.40	4,131.20	4,337.60	4,554.40	4,781.60
			Monthly	8,524.53	8,950.93	9,398.13	9,867.87	10,360.13
			Annual	102,294.40	107,411.20	112,777.60	118,414.40	124,321.60
PARALEGAL	U195	Classified	Hourly	34.90	36.65	38.48	40.40	42.42
			Bi-Weekly	2,792.00	2,932.00	3,078.40	3,232.00	3,393.60
			Monthly	6,049.33	6,352.67	6,669.87	7,002.67	7,352.80
			Annual	72,592.00	76,232.00	80,038.40	84,032.00	88,233.60
LEGAL SECRETARY II	C935	Classified	Hourly	31.60	33.43	35.95	36.70	38.58
			Bi-Weekly	2,528.00	2,674.40	2,876.00	2,936.00	3,086.40
			Monthly	5,477.33	5,794.53	6,231.33	6,361.33	6,687.20
			Annual	65,728.00	69,534.40	74,776.00	76,336.00	80,246.40
LEGAL SECRETARY I	C930	Classified	Hourly	28.45	29.95	31.53	33.23	34.99
			Bi-Weekly	2,276.00	2,396.00	2,522.40	2,658.40	2,799.20
			Monthly	4,931.33	5,191.33	5,465.20	5,759.87	6,064.93
			Annual	59,176.00	62,296.00	65,582.40	69,118.40	72,779.20
CITY CLERK DEPARTMENT								
DEPUTY CITY CLERK	H500	Classified	Hourly	45.34	47.62	49.98	52.48	55.11
			Bi-Weekly	3,627.20	3,809.60	3,998.40	4,198.40	4,408.80
			Monthly	7,858.93	8,254.13	8,663.20	9,096.53	9,552.40
			Annual	94,307.20	99,049.60	103,958.40	109,158.40	114,628.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
CITY MANAGER DEPARTMENT								
OFFICE OF THE CITY MANAGER								
DEPUTY CITY MANAGER	U505	Unclassified	Hourly	84.01	88.21	92.62	97.26	102.12
			Bi-Weekly	6,720.80	7,056.80	7,409.60	7,780.80	8,169.60
			Monthly	14,561.73	15,289.73	16,054.13	16,858.40	17,700.80
			Annual	174,740.80	183,476.80	192,649.60	202,300.80	212,409.60
ASSISTANT TO CITY MANAGER	U320	Unclassified	Hourly	50.37	52.90	55.54	58.32	61.23
			Bi-Weekly	4,029.60	4,232.00	4,443.20	4,665.60	4,898.40
			Monthly	8,730.80	9,169.33	9,626.93	10,108.80	10,613.20
			Annual	104,769.60	110,032.00	115,523.20	121,305.60	127,358.40
GRAPHICS AND MEDIA RELATIONS TECHNICIAN	T300	Classified	Hourly	30.42	31.90	33.59	35.27	36.98
			Bi-Weekly	2,433.60	2,552.00	2,687.20	2,821.60	2,958.40
			Monthly	5,272.80	5,529.33	5,822.27	6,113.47	6,409.87
			Annual	63,273.60	66,352.00	69,867.20	73,361.60	76,918.40
DIGITAL APPLICATIONS DEVELOPER	T470	Classified	Hourly	41.73	43.81	46.00	48.31	50.73
			Bi-Weekly	3,338.40	3,504.80	3,680.00	3,864.80	4,058.40
			Monthly	7,233.20	7,593.73	7,973.33	8,373.73	8,793.20
			Annual	86,798.40	91,124.80	95,680.00	100,484.80	105,518.40
MANAGEMENT FELLOW	U300	Classified	Hourly					23.64
			Bi-Weekly					1,891.20
			Monthly					4,097.60
			Annual					49,171.20
ECONOMIC DEVELOPMENT								
ECONOMIC DEVELOPMENT MANAGER	H710	Classified	Hourly	62.36	65.47	68.74	72.17	75.79
			Bi-Weekly	4,988.80	5,237.60	5,499.20	5,773.60	6,063.20
			Monthly	10,809.07	11,348.13	11,914.93	12,509.47	13,136.93
			Annual	129,708.80	136,177.60	142,979.20	150,113.60	157,643.20
ECONOMIC DEVELOPMENT SPECIALIST	T745	Classified	Hourly	43.86	46.07	48.32	50.78	53.26
			Bi-Weekly	3,508.80	3,685.60	3,865.60	4,062.40	4,260.80
			Monthly	7,602.40	7,985.47	8,375.47	8,801.87	9,231.73
			Annual	91,228.80	95,825.60	100,505.60	105,622.40	110,780.80
NEIGHBORHOOD PARTNERSHIP SERVICES								
NEIGHBORHOOD DEVELOPMENT MANAGER	H735	Classified	Hourly	61.75	64.82	68.06	71.46	75.04
			Bi-Weekly	4,940.00	5,185.60	5,444.80	5,716.80	6,003.20
			Monthly	10,703.33	11,235.47	11,797.07	12,386.40	13,006.93
			Annual	128,440.00	134,825.60	141,564.80	148,636.80	156,083.20
NEIGHBORHOOD PARTNERSHIP MANAGER	H730	Classified	Hourly	55.53	58.31	61.22	64.28	67.50
			Bi-Weekly	4,442.40	4,664.80	4,897.60	5,142.40	5,400.00
			Monthly	9,625.20	10,107.07	10,611.47	11,141.87	11,700.00
			Annual	115,502.40	121,284.80	127,337.60	133,702.40	140,400.00
HOUSING AUTHORITY								
HOUSING MANAGER	H715	Classified	Hourly	55.53	58.31	61.22	64.28	67.50
			Bi-Weekly	4,442.40	4,664.80	4,897.60	5,142.40	5,400.00
			Monthly	9,625.20	10,107.07	10,611.47	11,141.87	11,700.00
			Annual	115,502.40	121,284.80	127,337.60	133,702.40	140,400.00
HOUSING DEVELOPMENT SPECIALIST	T750	Classified	Hourly	43.86	46.07	48.32	50.78	53.26
			Bi-Weekly	3,508.80	3,685.60	3,865.60	4,062.40	4,260.80
			Monthly	7,602.40	7,985.47	8,375.47	8,801.87	9,231.73
			Annual	91,228.80	95,825.60	100,505.60	105,622.40	110,780.80
HOMEOWNERSHIP COORDINATOR	T710	Classified	Hourly	38.53	40.46	42.41	44.57	46.75
			Bi-Weekly	3,082.40	3,236.80	3,392.80	3,565.60	3,740.00
			Monthly	6,678.53	7,013.07	7,351.07	7,725.47	8,103.33
			Annual	80,142.40	84,156.80	88,212.80	92,705.60	97,240.00
DEVELOPMENT SERVICES DEPARTMENT								
DEVELOPMENT SERVICE ADMINISTRATION								
DEPUTY DIRECTOR OF DEVELOPMENT SERVICES	U515	Classified	Hourly	72.73	76.37	80.20	84.20	88.42
			Bi-Weekly	5,818.40	6,109.60	6,416.00	6,736.00	7,073.60
			Monthly	12,606.53	13,237.47	13,901.33	14,594.67	15,326.13
			Annual	151,278.40	158,849.60	166,816.00	175,136.00	183,913.60
BUILDING DIVISION								
CITY BUILDING OFFICIAL	H335	Classified	Hourly	64.21	67.42	70.79	74.34	78.05
			Bi-Weekly	5,136.80	5,393.60	5,663.20	5,947.20	6,244.00
			Monthly	11,129.73	11,686.13	12,270.27	12,885.60	13,528.67
			Annual	133,556.80	140,233.60	147,243.20	154,627.20	162,344.00
SUPERVISING BUILDING INSPECTOR	H330	Classified	Hourly	52.42	55.04	57.79	60.69	63.72
			Bi-Weekly	4,193.60	4,403.20	4,623.20	4,855.20	5,097.60
			Monthly	9,086.13	9,540.27	10,016.93	10,519.60	11,044.80
			Annual	109,033.60	114,483.20	120,203.20	126,235.20	132,537.60

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
SENIOR BUILDING INSPECTOR/STRUCTURAL	T365	Classified	Hourly	43.33	45.64	47.94	50.20	52.71
			Bi-Weekly	3,466.40	3,651.20	3,835.20	4,016.00	4,216.80
			Monthly	7,510.53	7,910.93	8,309.60	8,701.33	9,136.40
			Annual	90,126.40	94,931.20	99,715.20	104,416.00	109,636.80
SENIOR BUILDING INSPECTOR/PLUMBING-MECHANICAL	T360	Classified	Hourly	43.33	45.64	47.94	50.20	52.71
			Bi-Weekly	3,466.40	3,651.20	3,835.20	4,016.00	4,216.80
			Monthly	7,510.53	7,910.93	8,309.60	8,701.33	9,136.40
			Annual	90,126.40	94,931.20	99,715.20	104,416.00	109,636.80
SENIOR BUILDING INSPECTOR/ELECTRICAL	T355	Classified	Hourly	43.33	45.64	47.94	50.20	52.71
			Bi-Weekly	3,466.40	3,651.20	3,835.20	4,016.00	4,216.80
			Monthly	7,510.53	7,910.93	8,309.60	8,701.33	9,136.40
			Annual	90,126.40	94,931.20	99,715.20	104,416.00	109,636.80
BUILDING INSPECTOR	T350	Classified	Hourly	37.41	39.17	41.16	43.26	46.09
			Bi-Weekly	2,992.80	3,133.60	3,292.80	3,460.80	3,687.20
			Monthly	6,484.40	6,789.47	7,134.40	7,498.40	7,988.93
			Annual	77,812.80	81,473.60	85,612.80	89,980.80	95,867.20
PLAN CHECKING ENGINEER	T335	Classified	Hourly	50.66	53.11	55.79	58.69	61.68
			Bi-Weekly	4,052.80	4,248.80	4,463.20	4,695.20	4,934.40
			Monthly	8,781.07	9,205.73	9,670.27	10,172.93	10,691.20
			Annual	105,372.80	110,468.80	116,043.20	122,075.20	128,294.40
SUPERVISING PLAN CHECKER AND EXPEDITOR	H325	Classified	Hourly	56.36	59.17	62.15	65.25	68.52
			Bi-Weekly	4,508.80	4,733.60	4,972.00	5,220.00	5,481.60
			Monthly	9,769.07	10,256.13	10,772.67	11,310.00	11,876.80
			Annual	117,228.80	123,073.60	129,272.00	135,720.00	142,521.60
SENIOR PLAN CHECKER	T330	Classified	Hourly	43.33	45.64	47.94	50.20	52.71
			Bi-Weekly	3,466.40	3,651.20	3,835.20	4,016.00	4,216.80
			Monthly	7,510.53	7,910.93	8,309.60	8,701.33	9,136.40
			Annual	90,126.40	94,931.20	99,715.20	104,416.00	109,636.80
PLAN CHECKER	T325	Classified	Hourly	39.40	41.48	43.58	45.66	47.93
			Bi-Weekly	3,152.00	3,318.40	3,486.40	3,652.80	3,834.40
			Monthly	6,829.33	7,189.87	7,553.87	7,914.40	8,307.87
			Annual	81,952.00	86,278.40	90,646.40	94,972.80	99,694.40
SUPERVISING PERMIT TECHNICIAN	H340	Classified	Hourly	37.50	39.38	41.34	43.41	45.58
			Bi-Weekly	3,000.00	3,150.40	3,307.20	3,472.80	3,646.40
			Monthly	6,500.00	6,825.87	7,165.60	7,524.40	7,900.53
			Annual	78,000.00	81,910.40	85,987.20	90,292.80	94,806.40
SENIOR PERMIT TECHNICIAN	C205	Classified	Hourly	35.19	36.64	38.06	39.72	41.74
			Bi-Weekly	2,815.20	2,931.20	3,044.80	3,177.60	3,339.20
			Monthly	6,099.60	6,350.93	6,597.07	6,884.80	7,234.93
			Annual	73,195.20	76,211.20	79,164.80	82,617.60	86,819.20
PERMIT TECHNICIAN II	C200	Classified	Hourly	31.73	32.99	34.32	35.81	37.62
			Bi-Weekly	2,538.40	2,639.20	2,745.60	2,864.80	3,009.60
			Monthly	5,499.87	5,718.27	5,948.80	6,207.07	6,520.80
			Annual	65,998.40	68,619.20	71,385.60	74,484.80	78,249.60
PERMIT TECHNICIAN I	C199	Classified	Hourly	28.84	29.99	31.20	32.54	34.20
			Bi-Weekly	2,307.20	2,399.20	2,496.00	2,603.20	2,736.00
			Monthly	4,998.93	5,198.27	5,408.00	5,640.27	5,928.00
			Annual	59,987.20	62,379.20	64,896.00	67,683.20	71,136.00
PLANNING DIVISION								
PLANNING MANAGER	H320	Classified	Hourly	64.43	67.63	71.01	74.56	78.30
			Bi-Weekly	5,154.40	5,410.40	5,680.80	5,964.80	6,264.00
			Monthly	11,167.87	11,722.53	12,308.40	12,923.73	13,572.00
			Annual	134,014.40	140,670.40	147,700.80	155,084.80	162,864.00
PRINCIPAL PLANNER	H315	Classified	Hourly	55.53	58.31	61.22	64.28	67.50
			Bi-Weekly	4,442.40	4,664.80	4,897.60	5,142.40	5,400.00
			Monthly	9,625.20	10,107.07	10,611.47	11,141.87	11,700.00
			Annual	115,502.40	121,284.80	127,337.60	133,702.40	140,400.00
SENIOR PLANNER	H310	Classified	Hourly	49.75	52.23	54.85	57.59	60.47
			Bi-Weekly	3,980.00	4,178.40	4,388.00	4,607.20	4,837.60
			Monthly	8,623.33	9,053.20	9,507.33	9,982.27	10,481.47
			Annual	103,480.00	108,638.40	114,088.00	119,787.20	125,777.60
ASSOCIATE PLANNER	T315	Classified	Hourly	43.99	46.15	48.44	50.93	53.37
			Bi-Weekly	3,519.20	3,692.00	3,875.20	4,074.40	4,269.60
			Monthly	7,624.93	7,999.33	8,396.27	8,827.87	9,250.80
			Annual	91,499.20	95,992.00	100,755.20	105,934.40	111,009.60

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step					
			A	B	C	D	E	
ASSISTANT PLANNER	T310	Classified	Hourly	36.10	37.86	39.90	41.85	43.99
			Bi-Weekly	2,888.00	3,028.80	3,192.00	3,348.00	3,519.20
			Monthly	6,257.33	6,562.40	6,916.00	7,254.00	7,624.93
			Annual	75,088.00	78,748.80	82,992.00	87,048.00	91,499.20
JUNIOR PLANNER	T305	Classified	Hourly	32.00	33.69	35.28	37.04	38.85
			Bi-Weekly	2,560.00	2,695.20	2,822.40	2,963.20	3,108.00
			Monthly	5,546.67	5,839.60	6,115.20	6,420.27	6,734.00
			Annual	66,560.00	70,075.20	73,382.40	77,043.20	80,808.00
DEVELOPMENT REVIEW SPECIALIST	T320	Classified	Hourly	38.47	40.33	42.52	44.61	46.88
			Bi-Weekly	3,077.60	3,226.40	3,401.60	3,568.80	3,750.40
			Monthly	6,668.13	6,990.53	7,370.13	7,732.40	8,125.87
			Annual	80,017.60	83,886.40	88,441.60	92,788.80	97,510.40
LANDSCAPE ARCHITECT	H300	Classified	Hourly	58.64	61.56	64.64	67.88	71.28
			Bi-Weekly	4,691.20	4,924.80	5,171.20	5,430.40	5,702.40
			Monthly	10,164.27	10,670.40	11,204.27	11,765.87	12,355.20
			Annual	121,971.20	128,044.80	134,451.20	141,190.40	148,262.40
CODE ENFORCEMENT DIVISION								
CODE ENFORCEMENT MANAGER	H703	Classified	Hourly	50.74	53.28	55.94	58.74	61.67
			Bi-Weekly	4,059.20	4,262.40	4,475.20	4,699.20	4,933.60
			Monthly	8,794.93	9,235.20	9,696.27	10,181.60	10,689.47
			Annual	105,539.20	110,822.40	116,355.20	122,179.20	128,273.60
CODE ENFORCEMENT SUPERVISOR	H700	Classified	Hourly	44.11	46.32	48.65	51.07	53.63
			Bi-Weekly	3,528.80	3,705.60	3,892.00	4,085.60	4,290.40
			Monthly	7,645.73	8,028.80	8,432.67	8,852.13	9,295.87
			Annual	91,748.80	96,345.60	101,192.00	106,225.60	111,550.40
SENIOR CODE ENFORCEMENT INSPECTOR	T610	Classified	Hourly	39.73	41.72	43.80	45.99	48.29
			Bi-Weekly	3,178.40	3,337.60	3,504.00	3,679.20	3,863.20
			Monthly	6,886.53	7,231.47	7,592.00	7,971.60	8,370.27
			Annual	82,638.40	86,777.60	91,104.00	95,659.20	100,443.20
CODE ENFORCEMENT INSPECTOR II	T605	Classified	Hourly	36.11	37.91	39.81	41.80	43.89
			Bi-Weekly	2,888.80	3,032.80	3,184.80	3,344.00	3,511.20
			Monthly	6,259.07	6,571.07	6,900.40	7,245.33	7,607.60
			Annual	75,108.80	78,852.80	82,804.80	86,944.00	91,291.20
CODE ENFORCEMENT INSPECTOR I	T600	Classified	Hourly	32.82	34.47	36.18	37.99	39.90
			Bi-Weekly	2,625.60	2,757.60	2,894.40	3,039.20	3,192.00
			Monthly	5,688.80	5,974.80	6,271.20	6,584.93	6,916.00
			Annual	68,265.60	71,697.60	75,254.40	79,019.20	82,992.00
FINANCE DEPARTMENT								
ADMINISTRATION DIVISION								
DEPUTY DIRECTOR OF FINANCE	U500	Classified	Hourly	66.44	69.76	73.26	76.92	80.75
			Bi-Weekly	5,315.20	5,580.80	5,860.80	6,153.60	6,460.00
			Monthly	11,516.27	12,091.73	12,698.40	13,332.80	13,996.67
			Annual	138,195.20	145,100.80	152,380.80	159,993.60	167,960.00
BUDGET OFFICER	H170	Classified	Hourly	52.22	54.85	57.58	60.46	63.47
			Bi-Weekly	4,177.60	4,388.00	4,606.40	4,836.80	5,077.60
			Monthly	9,051.47	9,507.33	9,980.53	10,479.73	11,001.47
			Annual	108,617.60	114,088.00	119,766.40	125,756.80	132,017.60
FINANCIAL ANALYST	H165	Classified	Hourly	45.53	47.79	50.18	52.68	55.32
			Bi-Weekly	3,642.40	3,823.20	4,014.40	4,214.40	4,425.60
			Monthly	7,891.87	8,283.60	8,697.87	9,131.20	9,588.80
			Annual	94,702.40	99,403.20	104,374.40	109,574.40	115,065.60
FINANCE TECHNICIAN	C320	Classified	Hourly	33.94	35.63	37.42	39.28	41.26
			Bi-Weekly	2,715.20	2,850.40	2,993.60	3,142.40	3,300.80
			Monthly	5,882.93	6,175.87	6,486.13	6,808.53	7,151.73
			Annual	70,595.20	74,110.40	77,833.60	81,702.40	85,820.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
ACCOUNTING DIVISION								
ACCOUNTING MANAGER	H150	Classified	Hourly	60.41	63.42	66.58	69.91	73.41
			Bi-Weekly	4,832.80	5,073.60	5,326.40	5,592.80	5,872.80
			Monthly	10,471.07	10,992.80	11,540.53	12,117.73	12,724.40
			Annual	125,652.80	131,913.60	138,486.40	145,412.80	152,692.80
SENIOR ACCOUNTANT	H145	Classified	Hourly	45.80	48.07	50.46	52.99	55.63
			Bi-Weekly	3,664.00	3,845.60	4,036.80	4,239.20	4,450.40
			Monthly	7,938.67	8,332.13	8,746.40	9,184.93	9,642.53
			Annual	95,264.00	99,985.60	104,956.80	110,219.20	115,710.40
ACCOUNTANT	H140	Classified	Hourly	41.61	43.69	45.86	48.16	50.57
			Bi-Weekly	3,328.80	3,495.20	3,668.80	3,852.80	4,045.60
			Monthly	7,212.40	7,572.93	7,949.07	8,347.73	8,765.47
			Annual	86,548.80	90,875.20	95,388.80	100,172.80	105,185.60
SENIOR ACCOUNT CLERK	C305	Classified	Hourly	29.38	30.81	32.15	33.70	35.27
			Bi-Weekly	2,350.40	2,464.80	2,572.00	2,696.00	2,821.60
			Monthly	5,092.53	5,340.40	5,572.67	5,841.33	6,113.47
			Annual	61,110.40	64,084.80	66,872.00	70,096.00	73,361.60
ACCOUNT CLERK	C300	Classified	Hourly	26.77	27.97	29.28	30.63	32.17
			Bi-Weekly	2,141.60	2,237.60	2,342.40	2,450.40	2,573.60
			Monthly	4,640.13	4,848.13	5,075.20	5,309.20	5,576.13
			Annual	55,681.60	58,177.60	60,902.40	63,710.40	66,913.60
REVENUE DIVISION								
REVENUE MANAGER	H160	Classified	Hourly	60.41	63.42	66.58	69.91	73.41
			Bi-Weekly	4,832.80	5,073.60	5,326.40	5,592.80	5,872.80
			Monthly	10,471.07	10,992.80	11,540.53	12,117.73	12,724.40
			Annual	125,652.80	131,913.60	138,486.40	145,412.80	152,692.80
FINANCE SUPERVISOR	H155	Classified	Hourly	45.02	47.28	49.63	52.11	54.71
			Bi-Weekly	3,601.60	3,782.40	3,970.40	4,168.80	4,376.80
			Monthly	7,803.47	8,195.20	8,602.53	9,032.40	9,483.07
			Annual	93,641.60	98,342.40	103,230.40	108,388.80	113,796.80
SUPERVISING CUSTOMER ACCOUNT CLERK	C332	Classified	Hourly	31.92	33.52	35.17	36.94	38.79
			Bi-Weekly	2,553.60	2,681.60	2,813.60	2,955.20	3,103.20
			Monthly	5,532.80	5,810.13	6,096.13	6,402.93	6,723.60
			Annual	66,393.60	69,721.60	73,153.60	76,835.20	80,683.20
SENIOR CUSTOMER ACCOUNT CLERK	C330	Classified	Hourly	29.38	30.81	32.15	33.70	35.27
			Bi-Weekly	2,350.40	2,464.80	2,572.00	2,696.00	2,821.60
			Monthly	5,092.53	5,340.40	5,572.67	5,841.33	6,113.47
			Annual	61,110.40	64,084.80	66,872.00	70,096.00	73,361.60
CUSTOMER ACCOUNT CLERK	C325	Classified	Hourly	26.77	27.97	29.28	30.63	32.17
			Bi-Weekly	2,141.60	2,237.60	2,342.40	2,450.40	2,573.60
			Monthly	4,640.13	4,848.13	5,075.20	5,309.20	5,576.13
			Annual	55,681.60	58,177.60	60,902.40	63,710.40	66,913.60
MAIL AND REVENUE CLERK	C322	Classified	Hourly	22.60	23.80	25.01	26.34	27.72
			Bi-Weekly	1,808.00	1,904.00	2,000.80	2,107.20	2,217.60
			Monthly	3,917.33	4,125.33	4,335.07	4,565.60	4,804.80
			Annual	47,008.00	49,504.00	52,020.80	54,787.20	57,657.60
PURCHASING DIVISION								
PURCHASING AND SERVICES MANAGER	H180	Classified	Hourly	52.21	54.82	57.56	60.43	63.44
			Bi-Weekly	4,176.80	4,385.60	4,604.80	4,834.40	5,075.20
			Monthly	9,049.73	9,502.13	9,977.07	10,474.53	10,996.27
			Annual	108,596.80	114,025.60	119,724.80	125,694.40	131,955.20
PURCHASING TECHNICIAN	C345	Classified	Hourly	30.87	32.42	34.02	35.70	37.50
			Bi-Weekly	2,469.60	2,593.60	2,721.60	2,856.00	3,000.00
			Monthly	5,350.80	5,619.47	5,896.80	6,188.00	6,500.00
			Annual	64,209.60	67,433.60	70,761.60	74,256.00	78,000.00
MAIL AND PURCHASING CLERK	C335	Classified	Hourly	24.37	25.60	26.79	28.19	29.58
			Bi-Weekly	1,949.60	2,048.00	2,143.20	2,255.20	2,366.40
			Monthly	4,224.13	4,437.33	4,643.60	4,886.27	5,127.20
			Annual	50,689.60	53,248.00	55,723.20	58,635.20	61,526.40

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
FIRE DEPARTMENT								
SWORN								
DEPUTY FIRE CHIEF (40 HR)	F600	Classified	Hourly	87.70	92.09	96.69	101.53	106.60
			Bi-Weekly	7,016.00	7,367.20	7,735.20	8,122.40	8,528.00
			Monthly	15,201.33	15,962.27	16,759.60	17,598.53	18,477.33
			Annual	182,416.00	191,547.20	201,115.20	211,182.40	221,728.00
FIRE MARSHAL (40 HR)	F400	Classified	Hourly	79.73	83.72	87.90	92.30	96.91
			Bi-Weekly	6,378.40	6,697.60	7,032.00	7,384.00	7,752.80
			Monthly	13,819.87	14,511.47	15,236.00	15,998.67	16,797.73
			Annual	165,838.40	174,137.60	182,832.00	191,984.00	201,572.80
FIRE TRAINING OFFICER (40 HR)	F420	Classified	Hourly	79.73	83.72	87.90	92.30	96.91
			Bi-Weekly	6,378.40	6,697.60	7,032.00	7,384.00	7,752.80
			Monthly	13,819.87	14,511.47	15,236.00	15,998.67	16,797.73
			Annual	165,838.40	174,137.60	182,832.00	191,984.00	201,572.80
BATTALION CHIEF (56 HR)	F410	Classified	Hourly	51.77	54.36	57.08	59.94	62.93
			Bi-Weekly	5,798.24	6,088.32	6,392.96	6,713.28	7,048.16
			Monthly	12,562.85	13,191.36	13,851.41	14,545.44	15,271.01
			Annual	150,754.24	158,296.32	166,216.96	174,545.28	183,252.16
BATTALION CHIEF (40 HR)	F415	Classified	Hourly	72.47	76.10	79.91	83.91	88.10
			Bi-Weekly	5,797.60	6,088.00	6,392.80	6,712.80	7,048.00
			Monthly	12,561.47	13,190.67	13,851.07	14,544.40	15,270.67
			Annual	150,737.60	158,288.00	166,212.80	174,532.80	183,248.00
STAFF FIRE CAPTAIN (40 HR)	F240	Classified	Hourly			69.79	73.28	76.94
			Bi-Weekly			5,583.20	5,862.40	6,155.20
			Monthly			12,096.93	12,701.87	13,336.27
			Annual			145,163.20	152,422.40	160,035.20
STAFF FIRE CAPTAIN - EMT (40 HR)	F241	Classified	Hourly			64.62	67.85	71.24
			Bi-Weekly			5,169.60	5,428.00	5,699.20
			Monthly			11,200.80	11,760.67	12,348.27
			Annual			134,409.60	141,128.00	148,179.20
FIRE CAPTAIN (56 HR)	F245	Classified	Hourly			45.31	47.57	49.96
			Bi-Weekly			5,074.72	5,327.84	5,595.52
			Monthly			10,995.23	11,543.65	12,123.63
			Annual			131,942.72	138,523.84	145,483.52
FIRE CAPTAIN (40 HR)	F250	Classified	Hourly			63.44	66.61	69.93
			Bi-Weekly			5,075.20	5,328.80	5,594.40
			Monthly			10,996.27	11,545.73	12,121.20
			Annual			131,955.20	138,548.80	145,454.40
FIRE PREVENTION INSPECTOR (56 HR)	F225	Classified	Hourly	38.39	40.30	42.31	44.43	46.64
			Bi-Weekly	4,299.68	4,513.60	4,738.72	4,976.16	5,223.68
			Monthly	9,315.97	9,779.47	10,267.23	10,781.68	11,317.97
			Annual	111,791.68	117,353.60	123,206.72	129,380.16	135,815.68
FIRE PREVENTION INSPECTOR - EMT (40 HR)	F221	Classified	Hourly	49.73	52.22	54.84	57.58	60.45
			Bi-Weekly	3,978.40	4,177.60	4,387.20	4,606.40	4,836.00
			Monthly	8,619.87	9,051.47	9,505.60	9,980.53	10,478.00
			Annual	103,438.40	108,617.60	114,067.20	119,766.40	125,736.00
FIRE PREVENTION INSPECTOR (40 HR)	F220	Classified	Hourly	53.70	56.40	59.22	62.18	65.28
			Bi-Weekly	4,296.00	4,512.00	4,737.60	4,974.40	5,222.40
			Monthly	9,308.00	9,776.00	10,264.80	10,777.87	11,315.20
			Annual	111,696.00	117,312.00	123,177.60	129,334.40	135,782.40
APPARATUS OPERATOR (56 HR)	F210	Classified	Hourly	36.35	38.16	40.08	42.08	44.17
			Bi-Weekly	4,071.20	4,273.92	4,488.96	4,712.96	4,947.04
			Monthly	8,820.93	9,260.16	9,726.08	10,211.41	10,718.59
			Annual	105,851.20	111,121.92	116,712.96	122,536.96	128,623.04
APPARATUS OPERATOR - EMT (56 HR)	F211	Classified	Hourly	33.66	35.33	37.11	38.96	40.90
			Bi-Weekly	3,769.92	3,956.96	4,156.32	4,363.52	4,580.80
			Monthly	8,168.16	8,573.41	9,005.36	9,454.29	9,925.07
			Annual	98,017.92	102,880.96	108,064.32	113,451.52	119,100.80
APPARATUS OPERATOR (40 HR)	F215	Classified	Hourly	50.84	53.38	56.05	58.85	61.80
			Bi-Weekly	4,067.20	4,270.40	4,484.00	4,708.00	4,944.00
			Monthly	8,812.27	9,252.53	9,715.33	10,200.67	10,712.00
			Annual	105,747.20	111,030.40	116,584.00	122,408.00	128,544.00
FIREFIGHTER (56 HR)	F200	Classified	Hourly	34.25	35.97	37.77	39.66	41.65
			Bi-Weekly	3,836.00	4,028.64	4,230.24	4,441.92	4,664.80
			Monthly	8,311.33	8,728.72	9,165.52	9,624.16	10,107.07
			Annual	99,736.00	104,744.64	109,986.24	115,489.92	121,284.80
FIREFIGHTER (40 HR)	F205	Classified	Hourly	47.97	50.36	52.87	55.52	58.30
			Bi-Weekly	3,837.60	4,028.80	4,229.60	4,441.60	4,664.00
			Monthly	8,314.80	8,729.07	9,164.13	9,623.47	10,105.33
			Annual	99,777.60	104,748.80	109,969.60	115,481.60	121,264.00
FIREFIGHTER TRAINEE (40 HR)	F100	Classified	Hourly	43.61	45.78			
			Bi-Weekly	3,488.80	3,662.40			
			Monthly	7,559.07	7,935.20			
			Annual	90,708.80	95,222.40			

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
PROFESSIONAL STAFF								
HAZARDOUS MATERIALS PROGRAM COORDINATOR	H590	Classified	Hourly	54.78	57.52	60.39	63.42	66.58
			Bi-Weekly	4,382.40	4,601.60	4,831.20	5,073.60	5,326.40
			Monthly	9,495.20	9,970.13	10,467.60	10,992.80	11,540.53
			Annual	113,942.40	119,641.60	125,611.20	131,913.60	138,486.40
FIRE PROTECTION ENGINEER	T510	Classified	Hourly	50.66	53.11	55.79	58.69	61.68
			Bi-Weekly	4,052.80	4,248.80	4,463.20	4,695.20	4,934.40
			Monthly	8,781.07	9,205.73	9,670.27	10,172.93	10,691.20
			Annual	105,372.80	110,468.80	116,043.20	122,075.20	128,294.40
EMERGENCY MEDICAL SERVICES COORDINATOR	H585	Classified	Hourly	49.82	52.32	54.93	57.67	60.56
			Bi-Weekly	3,985.60	4,185.60	4,394.40	4,613.60	4,844.80
			Monthly	8,635.47	9,068.80	9,521.20	9,996.13	10,497.07
			Annual	103,625.60	108,825.60	114,254.40	119,953.60	125,964.80
ENVIRONMENTAL SPECIALIST	T505	Classified	Hourly	44.81	47.05	49.41	51.87	54.47
			Bi-Weekly	3,584.80	3,764.00	3,952.80	4,149.60	4,357.60
			Monthly	7,767.07	8,155.33	8,564.40	8,990.80	9,441.47
			Annual	93,204.80	97,864.00	102,772.80	107,889.60	113,297.60
HAZARDOUS MATERIALS INSPECTOR	T500	Classified	Hourly	42.69	44.82	47.06	49.43	51.87
			Bi-Weekly	3,415.20	3,585.60	3,764.80	3,954.40	4,149.60
			Monthly	7,399.60	7,768.80	8,157.07	8,567.87	8,990.80
			Annual	88,795.20	93,225.60	97,884.80	102,814.40	107,889.60
FIRE SERVICES SUPERVISOR	H580	Classified	Hourly	49.86	52.36	54.97	57.72	60.61
			Bi-Weekly	3,988.80	4,188.80	4,397.60	4,617.60	4,848.80
			Monthly	8,642.40	9,075.73	9,528.13	10,004.80	10,505.73
			Annual	103,708.80	108,908.80	114,337.60	120,057.60	126,068.80
SENIOR FIRE TECHNICIAN	C260	Classified	Hourly	35.19	36.64	38.06	39.72	41.74
			Bi-Weekly	2,815.20	2,931.20	3,044.80	3,177.60	3,339.20
			Monthly	6,099.60	6,350.93	6,597.07	6,884.80	7,234.93
			Annual	73,195.20	76,211.20	79,164.80	82,617.60	86,819.20
FIRE TECHNICIAN II	C255	Classified	Hourly	30.96	32.50	34.12	35.84	37.62
			Bi-Weekly	2,476.80	2,600.00	2,729.60	2,867.20	3,009.60
			Monthly	5,366.40	5,633.33	5,914.13	6,212.27	6,520.80
			Annual	64,396.80	67,600.00	70,969.60	74,547.20	78,249.60
FIRE TECHNICIAN I	C250	Classified	Hourly	28.12	29.53	31.01	32.56	34.19
			Bi-Weekly	2,249.60	2,362.40	2,480.80	2,604.80	2,735.20
			Monthly	4,874.13	5,118.53	5,375.07	5,643.73	5,926.27
			Annual	58,489.60	61,422.40	64,500.80	67,724.80	71,115.20
HUMAN RESOURCES DEPARTMENT								
DEPUTY DIRECTOR OF HUMAN RESOURCES	U520	Classified	Hourly	66.44	69.76	73.26	76.92	80.75
			Bi-Weekly	5,315.20	5,580.80	5,860.80	6,153.60	6,460.00
			Monthly	11,516.27	12,091.73	12,698.40	13,332.80	13,996.67
			Annual	138,195.20	145,100.80	152,380.80	159,993.60	167,960.00
HUMAN RESOURCES MANAGER	U135	Classified	Hourly	50.06	52.56	55.19	57.95	60.84
			Bi-Weekly	4,004.80	4,204.80	4,415.20	4,636.00	4,867.20
			Monthly	8,677.07	9,110.40	9,566.27	10,044.67	10,545.60
			Annual	104,124.80	109,324.80	114,795.20	120,536.00	126,547.20
SENIOR HUMAN RESOURCES ANALYST	U120	Classified	Hourly	49.86	52.33	54.96	57.71	60.58
			Bi-Weekly	3,988.80	4,186.40	4,396.80	4,616.80	4,846.40
			Monthly	8,642.40	9,070.53	9,526.40	10,003.07	10,500.53
			Annual	103,708.80	108,846.40	114,316.80	120,036.80	126,006.40
HUMAN RESOURCES ANALYST II	U115	Classified	Hourly	45.34	47.61	49.99	52.48	55.10
			Bi-Weekly	3,627.20	3,808.80	3,999.20	4,198.40	4,408.00
			Monthly	7,858.93	8,252.40	8,664.93	9,096.53	9,550.67
			Annual	94,307.20	99,028.80	103,979.20	109,158.40	114,608.00
HUMAN RESOURCES ANALYST I	U110	Classified	Hourly	41.22	43.29	45.44	47.71	50.10
			Bi-Weekly	3,297.60	3,463.20	3,635.20	3,816.80	4,008.00
			Monthly	7,144.80	7,503.60	7,876.27	8,269.73	8,684.00
			Annual	85,737.60	90,043.20	94,515.20	99,236.80	104,208.00
HUMAN RESOURCES TECHNICIAN	U100	Classified	Hourly	30.03	31.54	33.11	34.75	36.49
			Bi-Weekly	2,402.40	2,523.20	2,648.80	2,780.00	2,919.20
			Monthly	5,205.20	5,466.93	5,739.07	6,023.33	6,324.93
			Annual	62,462.40	65,603.20	68,868.80	72,280.00	75,899.20
HUMAN RESOURCES ADMINISTRATIVE ASSISTANT	U105	Classified	Hourly	33.74	35.42	37.19	39.05	41.01
			Bi-Weekly	2,699.20	2,833.60	2,975.20	3,124.00	3,280.80
			Monthly	5,848.27	6,139.47	6,446.27	6,768.67	7,108.40
			Annual	70,179.20	73,673.60	77,355.20	81,224.00	85,300.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
LIBRARY AND COMMUNITY SERVICES DEPARTMENT								
<i>COMMUNITY SERVICES</i>								
COMMUNITY SERVICES MANAGER	H745	Classified	Hourly	62.55	65.67	68.96	72.42	76.03
			Bi-Weekly	5,004.00	5,253.60	5,516.80	5,793.60	6,082.40
			Monthly	10,842.00	11,382.80	11,953.07	12,552.80	13,178.53
			Annual	130,104.00	136,593.60	143,436.80	150,633.60	158,142.40
COMMUNITY PROGRAMS SPECIALIST	T705	Classified	Hourly	40.42	42.52	44.68	46.88	49.17
			Bi-Weekly	3,233.60	3,401.60	3,574.40	3,750.40	3,933.60
			Monthly	7,006.13	7,370.13	7,744.53	8,125.87	8,522.80
			Annual	84,073.60	88,441.60	92,934.40	97,510.40	102,273.60
SENIOR PROPERTY REHABILITATION SPECIALIST	T730	Classified	Hourly	44.45	46.76	49.14	51.56	54.08
			Bi-Weekly	3,556.00	3,740.80	3,931.20	4,124.80	4,326.40
			Monthly	7,704.67	8,105.07	8,517.60	8,937.07	9,373.87
			Annual	92,456.00	97,260.80	102,211.20	107,244.80	112,486.40
PROPERTY REHABILITATION SPECIALIST	T725	Classified	Hourly	40.42	42.52	44.68	46.88	49.17
			Bi-Weekly	3,233.60	3,401.60	3,574.40	3,750.40	3,933.60
			Monthly	7,006.13	7,370.13	7,744.53	8,125.87	8,522.80
			Annual	84,073.60	88,441.60	92,934.40	97,510.40	102,273.60
PARATRANSIT COORDINATOR	T715	Classified	Hourly	38.53	40.46	42.41	44.57	46.75
			Bi-Weekly	3,082.40	3,236.80	3,392.80	3,565.60	3,740.00
			Monthly	6,678.53	7,013.07	7,351.07	7,725.47	8,103.33
			Annual	80,142.40	84,156.80	88,212.80	92,705.60	97,240.00
EDUCATION SERVICES MANAGER	H760	Classified	Hourly	43.21	45.36	47.63	50.00	52.50
			Bi-Weekly	3,456.80	3,628.80	3,810.40	4,000.00	4,200.00
			Monthly	7,489.73	7,862.40	8,255.87	8,666.67	9,100.00
			Annual	89,876.80	94,348.80	99,070.40	104,000.00	109,200.00
EDUCATIONAL SERVICES COORDINATOR	T780	Classified	Hourly	30.03	31.54	33.13	34.78	36.52
			Bi-Weekly	2,402.40	2,523.20	2,650.40	2,782.40	2,921.60
			Monthly	5,205.20	5,466.93	5,742.53	6,028.53	6,330.13
			Annual	62,462.40	65,603.20	68,910.40	72,342.40	75,961.60
<i>LIBRARY SERVICES DIVISION</i>								
LIBRARY OPERATIONS MANAGER	H755	Classified	Hourly	43.21	45.36	47.63	50.00	52.50
			Bi-Weekly	3,456.80	3,628.80	3,810.40	4,000.00	4,200.00
			Monthly	7,489.73	7,862.40	8,255.87	8,666.67	9,100.00
			Annual	89,876.80	94,348.80	99,070.40	104,000.00	109,200.00
SUPERVISING LIBRARIAN I	H750	Classified	Hourly	43.21	45.36	47.63	50.00	52.50
			Bi-Weekly	3,456.80	3,628.80	3,810.40	4,000.00	4,200.00
			Monthly	7,489.73	7,862.40	8,255.87	8,666.67	9,100.00
			Annual	89,876.80	94,348.80	99,070.40	104,000.00	109,200.00
LIBRARIAN II	T795	Classified	Hourly	33.89	35.59	37.31	39.20	41.05
			Bi-Weekly	2,711.20	2,847.20	2,984.80	3,136.00	3,284.00
			Monthly	5,874.27	6,168.93	6,467.07	6,794.67	7,115.33
			Annual	70,491.20	74,027.20	77,604.80	81,536.00	85,384.00
LIBRARIAN I	T790	Classified	Hourly	30.73	32.28	33.89	35.50	37.32
			Bi-Weekly	2,458.40	2,582.40	2,711.20	2,840.00	2,985.60
			Monthly	5,326.53	5,595.20	5,874.27	6,153.33	6,468.80
			Annual	63,918.40	67,142.40	70,491.20	73,840.00	77,625.60

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type		Step A	Step B	Step C	Step D	Step E
LEAD LIBRARY ASSISTANT	C520	Classified	Hourly	29.47	30.96	32.43	34.03	35.81
			Bi-Weekly	2,357.60	2,476.80	2,594.40	2,722.40	2,864.80
			Monthly	5,108.13	5,366.40	5,621.20	5,898.53	6,207.07
			Annual	61,297.60	64,396.80	67,454.40	70,782.40	74,484.80
SENIOR LIBRARY ASSISTANT	C515	Classified	Hourly	27.21	28.41	29.71	31.03	32.52
			Bi-Weekly	2,176.80	2,272.80	2,376.80	2,482.40	2,601.60
			Monthly	4,716.40	4,924.40	5,149.73	5,378.53	5,636.80
			Annual	56,596.80	59,092.80	61,796.80	64,542.40	67,641.60
LIBRARY ASSISTANT	C510	Classified	Hourly	24.66	25.79	26.96	28.20	29.53
			Bi-Weekly	1,972.80	2,063.20	2,156.80	2,256.00	2,362.40
			Monthly	4,274.40	4,470.27	4,673.07	4,888.00	5,118.53
			Annual	51,292.80	53,643.20	56,076.80	58,656.00	61,422.40
SENIOR LIBRARY PAGE (.6 FTE)	C505	Classified	Hourly					17.90
			Bi-Weekly					859.20
			Monthly					1,861.60
			Annual					22,339.20
LIBRARY PAGE (.3 FTE)	C500	Classified	Hourly					16.35
			Bi-Weekly					392.40
			Monthly					850.20
			Annual					10,202.40
LITERACY PROGRAM COORDINATOR	T785	Classified	Hourly	30.07	31.59	33.16	34.74	36.52
			Bi-Weekly	2,405.60	2,527.20	2,652.80	2,779.20	2,921.60
			Monthly	5,212.13	5,475.60	5,747.73	6,021.60	6,330.13
			Annual	62,545.60	65,707.20	68,972.80	72,259.20	75,961.60
LEAD PROGRAM ASSISTANT	C508	Classified	Hourly	29.47	30.96	32.43	34.03	35.81
			Bi-Weekly	2,357.60	2,476.80	2,594.40	2,722.40	2,864.80
			Monthly	5,108.13	5,366.40	5,621.20	5,898.53	6,207.07
			Annual	61,297.60	64,396.80	67,454.40	70,782.40	74,484.80
PROGRAM ASSISTANT	C506	Classified	Hourly	22.80	23.95	25.14	26.40	27.73
			Bi-Weekly	1,824.00	1,916.00	2,011.20	2,112.00	2,218.40
			Monthly	3,952.00	4,151.33	4,357.60	4,576.00	4,806.53
			Annual	47,424.00	49,816.00	52,291.20	54,912.00	57,678.40
MAINTENANCE SERVICES DEPARTMENT								
FACILITIES MANAGEMENT								
FACILITIES AND BUILDING MANAGER	H605	Classified	Hourly	54.78	57.50	60.38	63.41	66.58
			Bi-Weekly	4,382.40	4,600.00	4,830.40	5,072.80	5,326.40
			Monthly	9,495.20	9,966.67	10,465.87	10,991.07	11,540.53
			Annual	113,942.40	119,600.00	125,590.40	131,892.80	138,486.40
FACILITIES LEADWORKER	M135	Classified	Hourly	47.09	48.96	50.86	52.96	55.23
			Bi-Weekly	3,767.20	3,916.80	4,068.80	4,236.80	4,418.40
			Monthly	8,162.27	8,486.40	8,815.73	9,179.73	9,573.20
			Annual	97,947.20	101,836.80	105,788.80	110,156.80	114,878.40
HVAC MECHANIC	M140	Classified	Hourly	42.56	44.26	46.00	47.95	49.93
			Bi-Weekly	3,404.80	3,540.80	3,680.00	3,836.00	3,994.40
			Monthly	7,377.07	7,671.73	7,973.33	8,311.33	8,654.53
			Annual	88,524.80	92,060.80	95,680.00	99,736.00	103,854.40
FACILITIES PAINTER II	M130	Classified	Hourly	34.74	36.16	37.57	39.13	40.76
			Bi-Weekly	2,779.20	2,892.80	3,005.60	3,130.40	3,260.80
			Monthly	6,021.60	6,267.73	6,512.13	6,782.53	7,065.07
			Annual	72,259.20	75,212.80	78,145.60	81,390.40	84,780.80
FACILITIES PAINTER I	M125	Classified	Hourly	31.61	32.89	34.22	35.65	37.06
			Bi-Weekly	2,528.80	2,631.20	2,737.60	2,852.00	2,964.80
			Monthly	5,479.07	5,700.93	5,931.47	6,179.33	6,423.73
			Annual	65,748.80	68,411.20	71,177.60	74,152.00	77,084.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type		Step A	Step B	Step C	Step D	Step E
FACILITIES CARPENTER II	M120	Classified	Hourly	34.60	35.97	37.48	39.03	40.65
			Bi-Weekly	2,768.00	2,877.60	2,998.40	3,122.40	3,252.00
			Monthly	5,997.33	6,234.80	6,496.53	6,765.20	7,046.00
			Annual	71,968.00	74,817.60	77,958.40	81,182.40	84,552.00
FACILITIES CARPENTER I	M115	Classified	Hourly	31.48	32.77	34.12	35.50	36.99
			Bi-Weekly	2,518.40	2,621.60	2,729.60	2,840.00	2,959.20
			Monthly	5,456.53	5,680.13	5,914.13	6,153.33	6,411.60
			Annual	65,478.40	68,161.60	70,969.60	73,840.00	76,939.20
FACILITIES SERVICEWORKER II	M110	Classified	Hourly	25.57	26.58	27.68	28.64	29.79
			Bi-Weekly	2,045.60	2,126.40	2,214.40	2,291.20	2,383.20
			Monthly	4,432.13	4,607.20	4,797.87	4,964.27	5,163.60
			Annual	53,185.60	55,286.40	57,574.40	59,571.20	61,963.20
FACILITIES SERVICEWORKER I	M105	Classified	Hourly	23.29	24.14	25.09	26.13	27.06
			Bi-Weekly	1,863.20	1,931.20	2,007.20	2,090.40	2,164.80
			Monthly	4,036.93	4,184.27	4,348.93	4,529.20	4,690.40
			Annual	48,443.20	50,211.20	52,187.20	54,350.40	56,284.80
FLEET MANAGEMENT DIVISION								
FLEET MAINTENANCE MANAGER	H635	Classified	Hourly	54.78	57.50	60.38	63.41	66.58
			Bi-Weekly	4,382.40	4,600.00	4,830.40	5,072.80	5,326.40
			Monthly	9,495.20	9,966.67	10,465.87	10,991.07	11,540.53
			Annual	113,942.40	119,600.00	125,590.40	131,892.80	138,486.40
SENIOR EQUIPMENT MECHANIC	M620	Classified	Hourly	38.05	39.83	41.85	44.03	46.21
			Bi-Weekly	3,044.00	3,186.40	3,348.00	3,522.40	3,696.80
			Monthly	6,595.33	6,903.87	7,254.00	7,631.87	8,009.73
			Annual	79,144.00	82,846.40	87,048.00	91,582.40	96,116.80
EQUIPMENT MECHANIC II	M615	Classified	Hourly	32.78	34.31	36.06	37.94	39.82
			Bi-Weekly	2,622.40	2,744.80	2,884.80	3,035.20	3,185.60
			Monthly	5,681.87	5,947.07	6,250.40	6,576.27	6,902.13
			Annual	68,182.40	71,364.80	75,004.80	78,915.20	82,825.60
EQUIPMENT MECHANIC I	M610	Classified	Hourly	29.84	31.34	32.95	34.57	36.27
			Bi-Weekly	2,387.20	2,507.20	2,636.00	2,765.60	2,901.60
			Monthly	5,172.27	5,432.27	5,711.33	5,992.13	6,286.80
			Annual	62,067.20	65,187.20	68,536.00	71,905.60	75,441.60
EQUIPMENT PARTS STOREKEEPER	M605	Classified	Hourly	27.80	29.29	30.69	32.25	33.88
			Bi-Weekly	2,224.00	2,343.20	2,455.20	2,580.00	2,710.40
			Monthly	4,818.67	5,076.93	5,319.60	5,590.00	5,872.53
			Annual	57,824.00	60,923.20	63,835.20	67,080.00	70,470.40
EQUIPMENT SERVICE ATTENDANT	M600	Classified	Hourly	25.67	26.67	27.77	28.72	29.82
			Bi-Weekly	2,053.60	2,133.60	2,221.60	2,297.60	2,385.60
			Monthly	4,449.47	4,622.80	4,813.47	4,978.13	5,168.80
			Annual	53,393.60	55,473.60	57,761.60	59,737.60	62,025.60
LANDSCAPE MAINTENANCE DIVISION								
LANDSCAPE MAINTENANCE MANAGER	H615	Classified	Hourly	54.78	57.50	60.38	63.41	66.58
			Bi-Weekly	4,382.40	4,600.00	4,830.40	5,072.80	5,326.40
			Monthly	9,495.20	9,966.67	10,465.87	10,991.07	11,540.53
			Annual	113,942.40	119,600.00	125,590.40	131,892.80	138,486.40

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
GROUNDSKEEPER III	M215	Classified	Hourly	35.54	36.96	38.46	39.82	41.35
			Bi-Weekly	2,843.20	2,956.80	3,076.80	3,185.60	3,308.00
			Monthly	6,160.27	6,406.40	6,666.40	6,902.13	7,167.33
			Annual	73,923.20	76,876.80	79,996.80	82,825.60	86,008.00
GROUNDSKEEPER II	M210	Classified	Hourly	30.90	32.14	33.44	34.63	35.96
			Bi-Weekly	2,472.00	2,571.20	2,675.20	2,770.40	2,876.80
			Monthly	5,356.00	5,570.93	5,796.27	6,002.53	6,233.07
			Annual	64,272.00	66,851.20	69,555.20	72,030.40	74,796.80
GROUNDSKEEPER I	M205	Classified	Hourly	28.06	29.19	30.42	31.47	32.7
			Bi-Weekly	2,244.80	2,335.20	2,433.60	2,517.60	2,616.00
			Monthly	4,863.73	5,059.60	5,272.80	5,454.80	5,668.00
			Annual	58,364.80	60,715.20	63,273.60	65,457.60	68,016.00
TREE TRIMMER	M220	Classified	Hourly	32.41	33.70	35.07	36.32	37.74
			Bi-Weekly	2,592.80	2,696.00	2,805.60	2,905.60	3,019.20
			Monthly	5,617.73	5,841.33	6,078.80	6,295.47	6,541.60
			Annual	67,412.80	70,096.00	72,945.60	75,545.60	78,499.20
STREET MAINTENANCE DIVISION								
STREETS MAINTENANCE MANAGER	H625	Classified	Hourly	54.78	57.50	60.38	63.41	66.58
			Bi-Weekly	4,382.40	4,600.00	4,830.40	5,072.80	5,326.40
			Monthly	9,495.20	9,966.67	10,465.87	10,991.07	11,540.53
			Annual	113,942.40	119,600.00	125,590.40	131,892.80	138,486.40
SENIOR MAINTENANCE LEADER	M315	Classified	Hourly	36.27	37.68	39.24	40.61	42.18
			Bi-Weekly	2,901.60	3,014.40	3,139.20	3,248.80	3,374.40
			Monthly	6,286.80	6,531.20	6,801.60	7,039.07	7,311.20
			Annual	75,441.60	78,374.40	81,619.20	84,468.80	87,734.40
MAINTENANCE LEADER	M310	Classified	Hourly	31.54	32.76	34.12	35.32	36.68
			Bi-Weekly	2,523.20	2,620.80	2,729.60	2,825.60	2,934.40
			Monthly	5,466.93	5,678.40	5,914.13	6,122.13	6,357.87
			Annual	65,603.20	68,140.80	70,969.60	73,465.60	76,294.40
SWEEPER EQUIPMENT OPERATOR	M700	Classified	Hourly	31.10	32.14	33.43	34.86	36.24
			Bi-Weekly	2,488.00	2,571.20	2,674.40	2,788.80	2,899.20
			Monthly	5,390.67	5,570.93	5,794.53	6,042.40	6,281.60
			Annual	64,688.00	66,851.20	69,534.40	72,508.80	75,379.20
POLICE DEPARTMENT								
SWORN								
POLICE CAPTAIN	P300	Classified	Hourly	83.93	88.12	92.53	97.16	102.00
			Bi-Weekly	6,714.40	7,049.60	7,402.40	7,772.80	8,160.00
			Monthly	14,547.87	15,274.13	16,038.53	16,841.07	17,680.00
			Annual	174,574.40	183,289.60	192,462.40	202,092.80	212,160.00
POLICE LIEUTENANT	P215	Classified	Hourly				74.27	77.88
			Bi-Weekly				5,941.60	6,230.40
			Monthly				12,873.47	13,499.20
			Annual				154,481.60	161,990.40
POLICE SERGEANT	P210	Classified	Hourly			63.64	66.71	70.12
			Bi-Weekly			5,091.20	5,336.80	5,609.60
			Monthly			11,030.93	11,563.07	12,154.13
			Annual			132,371.20	138,756.80	145,849.60
POLICE OFFICER	P200	Classified	Hourly	46.74	48.97	51.35	53.83	56.39
			Bi-Weekly	3,739.20	3,917.60	4,108.00	4,306.40	4,511.20
			Monthly	8,101.60	8,488.13	8,900.67	9,330.53	9,774.27
			Annual	97,219.20	101,857.60	106,808.00	111,966.40	117,291.20
POLICE OFFICER TRAINEE	P100	Classified	Hourly	33.68	35.34			
			Bi-Weekly	2,694.40	2,827.20			
			Monthly	5,837.87	6,125.60			
			Annual	70,054.40	73,507.20			

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
PROFESSIONAL STAFF								
PERSONNEL AND TRAINING ADMINISTRATOR	H450	Classified	Hourly	62.24	65.35	68.63	72.06	75.66
			Bi-Weekly	4,979.20	5,228.00	5,490.40	5,764.80	6,052.80
			Monthly	10,788.27	11,327.33	11,895.87	12,490.40	13,114.40
			Annual	129,459.20	135,928.00	142,750.40	149,884.80	157,372.80
SENIOR CRIME AND INTELLIGENCE ANALYST	H406	Classified	Hourly	49.86	52.33	54.96	57.71	60.58
			Bi-Weekly	3,988.80	4,186.40	4,396.80	4,616.80	4,846.40
			Monthly	8,642.40	9,070.53	9,526.40	10,003.07	10,500.53
			Annual	103,708.80	108,846.40	114,316.80	120,036.80	126,006.40
CRIME AND INTELLIGENCE ANALYST	H405	Classified	Hourly	45.34	47.61	49.99	52.48	55.10
			Bi-Weekly	3,627.20	3,808.80	3,999.20	4,198.40	4,408.00
			Monthly	7,858.93	8,252.40	8,664.93	9,096.53	9,550.67
			Annual	94,307.20	99,028.80	103,979.20	109,158.40	114,608.00
POLICE PROGRAMS ANALYST	H400	Classified	Hourly	45.34	47.61	49.99	52.48	55.10
			Bi-Weekly	3,627.20	3,808.80	3,999.20	4,198.40	4,408.00
			Monthly	7,858.93	8,252.40	8,664.93	9,096.53	9,550.67
			Annual	94,307.20	99,028.80	103,979.20	109,158.40	114,608.00
SPECIAL OPERATIONS DIVISION								
CRIME PREVENTION SPECIALIST	C670	Classified	Hourly	31.00	32.54	34.17	35.89	37.68
			Bi-Weekly	2,480.00	2,603.20	2,733.60	2,871.20	3,014.40
			Monthly	5,373.33	5,640.27	5,922.80	6,220.93	6,531.20
			Annual	64,480.00	67,683.20	71,073.60	74,651.20	78,374.40
RESERVE OFFICER COORDINATOR	H455	Classified	Hourly	54.57	57.30	60.16	63.07	66.29
			Bi-Weekly	4,365.60	4,584.00	4,812.80	5,045.60	5,303.20
			Monthly	9,458.80	9,932.00	10,427.73	10,932.13	11,490.27
			Annual	113,505.60	119,184.00	125,132.80	131,185.60	137,883.20
INVESTIGATION DIVISION								
YOUTH AND FAMILY SERVICES ADMINISTRATOR	H445	Classified	Hourly	62.24	65.35	68.63	72.06	75.66
			Bi-Weekly	4,979.20	5,228.00	5,490.40	5,764.80	6,052.80
			Monthly	10,788.27	11,327.33	11,895.87	12,490.40	13,114.40
			Annual	129,459.20	135,928.00	142,750.40	149,884.80	157,372.80
COUNSELING SUPERVISOR	H440	Classified	Hourly	47.04	49.40	51.86	54.45	57.18
			Bi-Weekly	3,763.20	3,952.00	4,148.80	4,356.00	4,574.40
			Monthly	8,153.60	8,562.67	8,989.07	9,438.00	9,911.20
			Annual	97,843.20	102,752.00	107,868.80	113,256.00	118,934.40
FAMILY COUNSELOR	T550	Classified	Hourly	37.66	39.52	41.51	43.41	45.68
			Bi-Weekly	3,012.80	3,161.60	3,320.80	3,472.80	3,654.40
			Monthly	6,527.73	6,850.13	7,195.07	7,524.40	7,917.87
			Annual	78,332.80	82,201.60	86,340.80	90,292.80	95,014.40
CERTIFIED LATENT PRINT EXAMINER	T560	Classified	Hourly	44.81	47.05	49.41	51.87	54.47
			Bi-Weekly	3,584.80	3,764.00	3,952.80	4,149.60	4,357.60
			Monthly	7,767.07	8,155.33	8,564.40	8,990.80	9,441.47
			Annual	93,204.80	97,864.00	102,772.80	107,889.60	113,297.60
SUPPORT SERVICES DIVISION								
OPERATIONS SUPPORT SERVICES MANAGER	U400	Classified	Hourly	71.88	75.48	80.02	84.03	88.21
			Bi-Weekly	5,750.40	6,038.40	6,401.60	6,722.40	7,056.80
			Monthly	12,459.20	13,083.20	13,870.13	14,565.20	15,289.73
			Annual	149,510.40	156,998.40	166,441.60	174,782.40	183,476.80
PROPERTY/EVIDENCE AND CRIME SCENE ADMINISTRATOR	H415	Classified	Hourly	49.86	52.34	54.96	57.72	60.60
			Bi-Weekly	3,988.80	4,187.20	4,396.80	4,617.60	4,848.00
			Monthly	8,642.40	9,072.27	9,526.40	10,004.80	10,504.00
			Annual	103,708.80	108,867.20	114,316.80	120,057.60	126,048.00
PROPERTY AND EVIDENCE SUPERVISOR	H410	Classified	Hourly	36.80	38.65	40.58	42.59	44.72
			Bi-Weekly	2,944.00	3,092.00	3,246.40	3,407.20	3,577.60
			Monthly	6,378.67	6,699.33	7,033.87	7,382.27	7,751.47
			Annual	76,544.00	80,392.00	84,406.40	88,587.20	93,017.60
POLICE ID SPECIALIST	T555	Classified	Hourly	33.20	34.86	36.60	38.46	40.27
			Bi-Weekly	2,656.00	2,788.80	2,928.00	3,076.80	3,221.60
			Monthly	5,754.67	6,042.40	6,344.00	6,664.40	6,980.13
			Annual	69,056.00	72,508.80	76,128.00	79,996.80	83,761.60
CRIME SCENE TECHNICIAN	C685	Classified	Hourly	30.88	32.28	33.76	35.27	36.95
			Bi-Weekly	2,470.40	2,582.40	2,700.80	2,821.60	2,956.00
			Monthly	5,352.53	5,595.20	5,851.73	6,113.47	6,404.67
			Annual	64,230.40	67,142.40	70,220.80	73,361.60	76,856.00

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
PROPERTY TECHNICIAN	C665	Classified	Hourly	29.84	31.13	32.64	34.13	35.75
			Bi-Weekly	2,387.20	2,490.40	2,611.20	2,730.40	2,860.00
			Monthly	5,172.27	5,395.87	5,657.60	5,915.87	6,196.67
			Annual	62,067.20	64,750.40	67,891.20	70,990.40	74,360.00
ANIMAL SERVICES ADMINISTRATOR	H430	Classified	Hourly	49.86	52.34	54.96	57.72	60.60
			Bi-Weekly	3,988.80	4,187.20	4,396.80	4,617.60	4,848.00
			Monthly	8,642.40	9,072.27	9,526.40	10,004.80	10,504.00
			Annual	103,708.80	108,867.20	114,316.80	120,057.60	126,048.00
SHELTER OPERATIONS SUPERVISOR	C621	Classified	Hourly	32.88	34.34	35.95	37.59	39.38
			Bi-Weekly	2,630.40	2,747.20	2,876.00	3,007.20	3,150.40
			Monthly	5,699.20	5,952.27	6,231.33	6,515.60	6,825.87
			Annual	68,390.40	71,427.20	74,776.00	78,187.20	81,910.40
ANIMAL CONTROL OFFICER	C610	Classified	Hourly	28.27	29.72	31.08	32.54	34.07
			Bi-Weekly	2,261.60	2,377.60	2,486.40	2,603.20	2,725.60
			Monthly	4,900.13	5,151.47	5,387.20	5,640.27	5,905.47
			Annual	58,801.60	61,817.60	64,646.40	67,683.20	70,865.60
ANIMAL CARE ATTENDANT	C600	Classified	Hourly	23.52	24.52	25.50	26.61	27.93
			Bi-Weekly	1,881.60	1,961.60	2,040.00	2,128.80	2,234.40
			Monthly	4,076.80	4,250.13	4,420.00	4,612.40	4,841.20
			Annual	48,921.60	51,001.60	53,040.00	55,348.80	58,094.40
SHELTER VOLUNTEER COORDINATOR	C607	Classified	Hourly	23.52	24.52	25.50	26.61	27.93
			Bi-Weekly	1,881.60	1,961.60	2,040.00	2,128.80	2,234.40
			Monthly	4,076.80	4,250.13	4,420.00	4,612.40	4,841.20
			Annual	48,921.60	51,001.60	53,040.00	55,348.80	58,094.40
COMMUNICATIONS ADMINISTRATOR	H435	Classified	Hourly	49.86	52.34	54.96	57.72	60.60
			Bi-Weekly	3,988.80	4,187.20	4,396.80	4,617.60	4,848.00
			Monthly	8,642.40	9,072.27	9,526.40	10,004.80	10,504.00
			Annual	103,708.80	108,867.20	114,316.80	120,057.60	126,048.00
COMMUNICATIONS SUPERVISOR	C645	Classified	Hourly	40.72	42.76	44.90	47.14	49.52
			Bi-Weekly	3,257.60	3,420.80	3,592.00	3,771.20	3,961.60
			Monthly	7,058.13	7,411.73	7,782.67	8,170.93	8,583.47
			Annual	84,697.60	88,940.80	93,392.00	98,051.20	103,001.60
COMMUNICATIONS OPERATOR	C635	Classified	Hourly	35.33	37.13	38.95	40.94	43.00
			Bi-Weekly	2,826.40	2,970.40	3,116.00	3,275.20	3,440.00
			Monthly	6,123.87	6,435.87	6,751.33	7,096.27	7,453.33
			Annual	73,486.40	77,230.40	81,016.00	85,155.20	89,440.00
CALL TAKER	C633	Classified	Hourly	29.40	30.84	32.40	34.03	35.73
			Bi-Weekly	2,352.00	2,467.20	2,592.00	2,722.40	2,858.40
			Monthly	5,096.00	5,345.60	5,616.00	5,898.53	6,193.20
			Annual	61,152.00	64,147.20	67,392.00	70,782.40	74,318.40
RECORDS ADMINISTRATOR	H425	Classified	Hourly	49.86	52.34	54.96	57.72	60.60
			Bi-Weekly	3,988.80	4,187.20	4,396.80	4,617.60	4,848.00
			Monthly	8,642.40	9,072.27	9,526.40	10,004.80	10,504.00
			Annual	103,708.80	108,867.20	114,316.80	120,057.60	126,048.00
RECORDS SUPERVISOR	C705	Classified	Hourly	35.34	37.11	38.96	40.91	42.96
			Bi-Weekly	2,827.20	2,968.80	3,116.80	3,272.80	3,436.80
			Monthly	6,125.60	6,432.40	6,753.07	7,091.07	7,446.40
			Annual	73,507.20	77,188.80	81,036.80	85,092.80	89,356.80
POLICE RECORDS CLERK II	C695	Classified	Hourly	27.48	28.58	29.72	31.03	32.55
			Bi-Weekly	2,198.40	2,286.40	2,377.60	2,482.40	2,604.00
			Monthly	4,763.20	4,953.87	5,151.47	5,378.53	5,642.00
			Annual	57,158.40	59,446.40	61,817.60	64,542.40	67,704.00
POLICE RECORDS CLERK I	C690	Classified	Hourly	24.16	25.41	26.76	28.09	29.60
			Bi-Weekly	1,932.80	2,032.80	2,140.80	2,247.20	2,368.00
			Monthly	4,187.73	4,404.40	4,638.40	4,868.93	5,130.67
			Annual	50,252.80	52,852.80	55,660.80	58,427.20	61,568.00
JAIL ADMINISTRATOR	H420	Classified	Hourly	49.86	52.34	54.96	57.72	60.60
			Bi-Weekly	3,988.80	4,187.20	4,396.80	4,617.60	4,848.00
			Monthly	8,642.40	9,072.27	9,526.40	10,004.80	10,504.00
			Annual	103,708.80	108,867.20	114,316.80	120,057.60	126,048.00
JAIL SUPERVISOR	C660	Classified	Hourly	34.29	35.73	37.45	39.20	41.08
			Bi-Weekly	2,743.20	2,858.40	2,996.00	3,136.00	3,286.40
			Monthly	5,943.60	6,193.20	6,491.33	6,794.67	7,120.53
			Annual	71,323.20	74,318.40	77,896.00	81,536.00	85,446.40
COMMUNITY SERVICE OFFICER	C650	Classified	Hourly	29.95	31.25	32.75	34.26	35.89
			Bi-Weekly	2,396.00	2,500.00	2,620.00	2,740.80	2,871.20
			Monthly	5,191.33	5,416.67	5,676.67	5,938.40	6,220.93
			Annual	62,296.00	65,000.00	68,120.00	71,260.80	74,651.20

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
TRANSPORTATION AND ENGINEERING DEPARTMENT								
AIRPORT DIVISION SUMMARY								
AIRPORT MANAGER	H205	Classified	Hourly	61.75	64.82	68.06	71.46	75.04
			Bi-Weekly	4,940.00	5,185.60	5,444.80	5,716.80	6,003.20
			Monthly	10,703.33	11,235.47	11,797.07	12,386.40	13,006.93
			Annual	128,440.00	134,825.60	141,564.80	148,636.80	156,083.20
AIRPORT OPERATIONS SUPERVISOR	H200	Classified	Hourly	51.47	54.03	56.74	59.58	62.55
			Bi-Weekly	4,117.60	4,322.40	4,539.20	4,766.40	5,004.00
			Monthly	8,921.47	9,365.20	9,834.93	10,327.20	10,842.00
			Annual	107,057.60	112,382.40	118,019.20	123,926.40	130,104.00
AIRPORT BUSINESS SUPERVISOR	H198	Classified	Hourly	49.86	52.33	54.96	57.71	60.58
			Bi-Weekly	3,988.80	4,186.40	4,396.80	4,616.80	4,846.40
			Monthly	8,642.40	9,070.53	9,526.40	10,003.07	10,500.53
			Annual	103,708.80	108,846.40	114,316.80	120,036.80	126,006.40
AIRPORT OPERATIONS SPECIALIST	T270	Classified	Hourly	30.07	31.59	33.16	34.74	36.52
			Bi-Weekly	2,405.60	2,527.20	2,652.80	2,779.20	2,921.60
			Monthly	5,212.13	5,475.60	5,747.73	6,021.60	6,330.13
			Annual	62,545.60	65,707.20	68,972.80	72,259.20	75,961.60
SENIOR AIRPORT MAINTENANCE WORKER	M510	Classified	Hourly	33.00	34.22	35.58	37.04	38.52
			Bi-Weekly	2,640.00	2,737.60	2,846.40	2,963.20	3,081.60
			Monthly	5,720.00	5,931.47	6,167.20	6,420.27	6,676.80
			Annual	68,640.00	71,177.60	74,006.40	77,043.20	80,121.60
AIRPORT MAINTENANCE WORKER	M505	Classified	Hourly	29.98	31.09	32.29	33.65	35.03
			Bi-Weekly	2,398.40	2,487.20	2,583.20	2,692.00	2,802.40
			Monthly	5,196.53	5,388.93	5,596.93	5,832.67	6,071.87
			Annual	62,358.40	64,667.20	67,163.20	69,992.00	72,862.40
AIRPORT ATTENDANT	M500	Classified	Hourly	22.44	23.44	24.30	25.36	26.62
			Bi-Weekly	1,795.20	1,875.20	1,944.00	2,028.80	2,129.60
			Monthly	3,889.60	4,062.93	4,212.00	4,395.73	4,614.13
			Annual	46,675.20	48,755.20	50,544.00	52,748.80	55,369.60
ENGINEERING/TRANSPORTATION DIVISION								
REAL PROPERTY MANAGER	H225	Classified	Hourly	45.30	47.58	49.94	52.45	55.07
			Bi-Weekly	3,624.00	3,806.40	3,995.20	4,196.00	4,405.60
			Monthly	7,852.00	8,247.20	8,656.27	9,091.33	9,545.47
			Annual	94,224.00	98,966.40	103,875.20	109,096.00	114,545.60
REAL PROPERTY ASSOCIATE	T260	Classified	Hourly	39.82	41.90	44.01	46.15	48.42
			Bi-Weekly	3,185.60	3,352.00	3,520.80	3,692.00	3,873.60
			Monthly	6,902.13	7,262.67	7,628.40	7,999.33	8,392.80
			Annual	82,825.60	87,152.00	91,540.80	95,992.00	100,713.60
REAL PROPERTY ASSISTANT	T255	Classified	Hourly	33.94	35.63	37.34	39.20	41.17
			Bi-Weekly	2,715.20	2,850.40	2,987.20	3,136.00	3,293.60
			Monthly	5,882.93	6,175.87	6,472.27	6,794.67	7,136.13
			Annual	70,595.20	74,110.40	77,667.20	81,536.00	85,633.60
ENGINEERING TECHNICIAN	T200	Classified	Hourly	32.37	33.93	35.65	37.43	39.22
			Bi-Weekly	2,589.60	2,714.40	2,852.00	2,994.40	3,137.60
			Monthly	5,610.80	5,881.20	6,179.33	6,487.87	6,798.13
			Annual	67,329.60	70,574.40	74,152.00	77,854.40	81,577.60
SURVEY ENGINEER	H230	Classified	Hourly	53.02	55.67	58.46	61.38	64.44
			Bi-Weekly	4,241.60	4,453.60	4,676.80	4,910.40	5,155.20
			Monthly	9,190.13	9,649.47	10,133.07	10,639.20	11,169.60
			Annual	110,281.60	115,793.60	121,596.80	127,670.40	134,035.20
SURVEYOR	T265	Classified	Hourly	38.51	40.41	42.42	44.52	46.76
			Bi-Weekly	3,080.80	3,232.80	3,393.60	3,561.60	3,740.80
			Monthly	6,675.07	7,004.40	7,352.80	7,716.80	8,105.07
			Annual	80,100.80	84,052.80	88,233.60	92,601.60	97,260.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
TRANSPORTATION MANAGER	H220	Classified	Hourly	67.97	71.38	74.95	78.70	82.62
			Bi-Weekly	5,437.60	5,710.40	5,996.00	6,296.00	6,609.60
			Monthly	11,781.47	12,372.53	12,991.33	13,641.33	14,320.80
			Annual	141,377.60	148,470.40	155,896.00	163,696.00	171,849.60
SENIOR TRANSPORTATION ENGINEER	H215	Classified	Hourly	58.96	61.91	65.00	68.25	71.66
			Bi-Weekly	4,716.80	4,952.80	5,200.00	5,460.00	5,732.80
			Monthly	10,219.73	10,731.07	11,266.67	11,830.00	12,421.07
			Annual	122,636.80	128,772.80	135,200.00	141,960.00	149,052.80
ASSOCIATE TRANSPORTATION ENGINEER	T240	Classified	Hourly	47.34	49.72	52.14	54.79	57.46
			Bi-Weekly	3,787.20	3,977.60	4,171.20	4,383.20	4,596.80
			Monthly	8,205.60	8,618.13	9,037.60	9,496.93	9,959.73
			Annual	98,467.20	103,417.60	108,451.20	113,963.20	119,516.80
ASSISTANT TRANSPORTATION ENGINEER	T235	Classified	Hourly	40.78	42.89	45.08	47.26	49.62
			Bi-Weekly	3,262.40	3,431.20	3,606.40	3,780.80	3,969.60
			Monthly	7,068.53	7,434.27	7,813.87	8,191.73	8,600.80
			Annual	84,822.40	89,211.20	93,766.40	98,300.80	103,209.60
SENIOR TRANSPORTATION PLANNER	H210	Classified	Hourly	49.75	52.23	54.85	57.59	60.47
			Bi-Weekly	3,980.00	4,178.40	4,388.00	4,607.20	4,837.60
			Monthly	8,623.33	9,053.20	9,507.33	9,982.27	10,481.47
			Annual	103,480.00	108,638.40	114,088.00	119,787.20	125,777.60
ASSOCIATE TRANSPORTATION PLANNER	T225	Classified	Hourly	43.99	46.15	48.44	50.93	53.37
			Bi-Weekly	3,519.20	3,692.00	3,875.20	4,074.40	4,269.60
			Monthly	7,624.93	7,999.33	8,396.27	8,827.87	9,250.80
			Annual	91,499.20	95,992.00	100,755.20	105,934.40	111,009.60
TRAFFIC SIGNAL TECHNICIAN	T220	Classified	Hourly	32.37	33.93	35.65	37.43	39.22
			Bi-Weekly	2,589.60	2,714.40	2,852.00	2,994.40	3,137.60
			Monthly	5,610.80	5,881.20	6,179.33	6,487.87	6,798.13
			Annual	67,329.60	70,574.40	74,152.00	77,854.40	81,577.60
SUPERVISING CONSTRUCTION INSPECTOR	H235	Classified	Hourly	52.42	55.04	57.79	60.69	63.72
			Bi-Weekly	4,193.60	4,403.20	4,623.20	4,855.20	5,097.60
			Monthly	9,086.13	9,540.27	10,016.93	10,519.60	11,044.80
			Annual	109,033.60	114,483.20	120,203.20	126,235.20	132,537.60
SENIOR CONSTRUCTION INSPECTOR	T250	Classified	Hourly	43.33	45.64	47.94	50.20	52.71
			Bi-Weekly	3,466.40	3,651.20	3,835.20	4,016.00	4,216.80
			Monthly	7,510.53	7,910.93	8,309.60	8,701.33	9,136.40
			Annual	90,126.40	94,931.20	99,715.20	104,416.00	109,636.80
CONSTRUCTION INSPECTOR	T245	Classified	Hourly	36.31	38.17	39.95	41.97	44.11
			Bi-Weekly	2,904.80	3,053.60	3,196.00	3,357.60	3,528.80
			Monthly	6,293.73	6,616.13	6,924.67	7,274.80	7,645.73
			Annual	75,524.80	79,393.60	83,096.00	87,297.60	91,748.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
UTILITIES AND ENVIRONMENTAL SERVICES DEPARTMENT								
ADMINISTRATION								
DEPUTY DIRECTOR OF PUBLIC WORKS	U510	Classified	Hourly	70.07	73.58	77.26	81.13	85.19
			Bi-Weekly	5,605.60	5,886.40	6,180.80	6,490.40	6,815.20
			Monthly	12,145.47	12,753.87	13,391.73	14,062.53	14,766.27
			Annual	145,745.60	153,046.40	160,700.80	168,750.40	177,195.20
WATER RESOURCES MANAGER	H875	Classified	Hourly	70.07	73.58	77.26	81.13	85.19
			Bi-Weekly	5,605.60	5,886.40	6,180.80	6,490.40	6,815.20
			Monthly	12,145.47	12,753.87	13,391.73	14,062.53	14,766.27
			Annual	145,745.60	153,046.40	160,700.80	168,750.40	177,195.20
UTILITIES ENGINEERING MANAGER	H880	Classified	Hourly	70.07	73.58	77.26	81.13	85.19
			Bi-Weekly	5,605.60	5,886.40	6,180.80	6,490.40	6,815.20
			Monthly	12,145.47	12,753.87	13,391.73	14,062.53	14,766.27
			Annual	145,745.60	153,046.40	160,700.80	168,750.40	177,195.20
SENIOR UTILITY SERVICE REPRESENTATIVE	M820	Classified	Hourly	35.01	36.74	38.49	40.47	42.45
			Bi-Weekly	2,800.80	2,939.20	3,079.20	3,237.60	3,396.00
			Monthly	6,068.40	6,368.27	6,671.60	7,014.80	7,358.00
			Annual	72,820.80	76,419.20	80,059.20	84,177.60	88,296.00
STOREKEEPER - EXPEDITER	M100	Classified	Hourly	29.04	30.24	31.37	32.57	33.80
			Bi-Weekly	2,323.20	2,419.20	2,509.60	2,605.60	2,704.00
			Monthly	5,033.60	5,241.60	5,437.47	5,645.47	5,858.67
			Annual	60,403.20	62,899.20	65,249.60	67,745.60	70,304.00
RECYCLING-SOLID WASTE								
SOLID WASTE PROGRAM MANAGER	H800	Classified	Hourly	49.86	52.33	54.96	57.71	60.58
			Bi-Weekly	3,988.80	4,186.40	4,396.80	4,616.80	4,846.40
			Monthly	8,642.40	9,070.53	9,526.40	10,003.07	10,500.53
			Annual	103,708.80	108,846.40	114,316.80	120,036.80	126,006.40
RECYCLING SPECIALIST	T800	Classified	Hourly	34.24	35.94	37.69	39.61	41.57
			Bi-Weekly	2,739.20	2,875.20	3,015.20	3,168.80	3,325.60
			Monthly	5,934.93	6,229.60	6,532.93	6,865.73	7,205.47
			Annual	71,219.20	74,755.20	78,395.20	82,388.80	86,465.60
SUSTAINABILITY SPECIALIST	T803	Classified	Hourly	36.79	38.62	40.55	42.58	44.71
			Bi-Weekly	2,943.20	3,089.60	3,244.00	3,406.40	3,576.80
			Monthly	6,376.93	6,694.13	7,028.67	7,380.53	7,749.73
			Annual	76,523.20	80,329.60	84,344.00	88,566.40	92,996.80
SUSTAINABILITY TECHNICIAN	T802	Classified	Hourly	33.45	35.11	36.86	38.69	40.64
			Bi-Weekly	2,676.00	2,808.80	2,948.80	3,095.20	3,251.20
			Monthly	5,798.00	6,085.73	6,389.07	6,706.27	7,044.27
			Annual	69,576.00	73,028.80	76,668.80	80,475.20	84,531.20
WATER POLLUTION CONTROL FACILITY (WPCF)								
WATER POLLUTION CONTROL FACILITY MANAGER	H870	Classified	Hourly	70.07	73.58	77.26	81.13	85.19
			Bi-Weekly	5,605.60	5,886.40	6,180.80	6,490.40	6,815.20
			Monthly	12,145.47	12,753.87	13,391.73	14,062.53	14,766.27
			Annual	145,745.60	153,046.40	160,700.80	168,750.40	177,195.20
WPCF OPERATIONS AND MAINTENANCE MANAGER	H865	Classified	Hourly	57.15	60.01	63.02	66.18	69.48
			Bi-Weekly	4,572.00	4,800.80	5,041.60	5,294.40	5,558.40
			Monthly	9,906.00	10,401.73	10,923.47	11,471.20	12,043.20
			Annual	118,872.00	124,820.80	131,081.60	137,654.40	144,518.40
WPCF MAINTENANCE SUPERVISOR	H860	Classified	Hourly	51.99	54.57	57.30	60.18	63.19
			Bi-Weekly	4,159.20	4,365.60	4,584.00	4,814.40	5,055.20
			Monthly	9,011.60	9,458.80	9,932.00	10,431.20	10,952.93
			Annual	108,139.20	113,505.60	119,184.00	125,174.40	131,435.20
WPCF OPERATIONS SUPERVISOR	H855	Classified	Hourly	51.99	54.57	57.30	60.18	63.19
			Bi-Weekly	4,159.20	4,365.60	4,584.00	4,814.40	5,055.20
			Monthly	9,011.60	9,458.80	9,932.00	10,431.20	10,952.93
			Annual	108,139.20	113,505.60	119,184.00	125,174.40	131,435.20
WPCF LEAD OPERATOR	M935	Classified	Hourly	41.44	43.10	44.78	46.56	48.45
			Bi-Weekly	3,315.20	3,448.00	3,582.40	3,724.80	3,876.00
			Monthly	7,182.93	7,470.67	7,761.87	8,070.40	8,398.00
			Annual	86,195.20	89,648.00	93,142.40	96,844.80	100,776.00
WPCF OPERATOR	M930	Classified	Hourly	36.44	37.89	39.41	40.94	42.61
			Bi-Weekly	2,915.20	3,031.20	3,152.80	3,275.20	3,408.80
			Monthly	6,316.27	6,567.60	6,831.07	7,096.27	7,385.73
			Annual	75,795.20	78,811.20	81,972.80	85,155.20	88,628.80
OPERATOR-IN-TRAINING	M925	Classified	Hourly	33.36	34.68	36.13	37.36	38.82
			Bi-Weekly	2,668.80	2,774.40	2,890.40	2,988.80	3,105.60
			Monthly	5,782.40	6,011.20	6,262.53	6,475.73	6,728.80
			Annual	69,388.80	72,134.40	75,150.40	77,708.80	80,745.60

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
LAB SUPERVISOR	H850	Classified	Hourly	51.99	54.57	57.30	60.18	63.19
			Bi-Weekly	4,159.20	4,365.60	4,584.00	4,814.40	5,055.20
			Monthly	9,011.60	9,458.80	9,932.00	10,431.20	10,952.93
			Annual	108,139.20	113,505.60	119,184.00	125,174.40	131,435.20
CHEMIST	T807	Classified	Hourly	40.43	42.46	44.58	46.80	49.14
			Bi-Weekly	3,234.40	3,396.80	3,566.40	3,744.00	3,931.20
			Monthly	7,007.87	7,359.73	7,727.20	8,112.00	8,517.60
			Annual	84,094.40	88,316.80	92,726.40	97,344.00	102,211.20
LABORATORY TECHNICIAN	T805	Classified	Hourly	35.16	36.48	37.88	39.44	40.91
			Bi-Weekly	2,812.80	2,918.40	3,030.40	3,155.20	3,272.80
			Monthly	6,094.40	6,323.20	6,565.87	6,836.27	7,091.07
			Annual	73,132.80	75,878.40	78,790.40	82,035.20	85,092.80

WATER POLLUTION SOURCE CONTROL								
ENVIRONMENTAL SERVICES MANAGER	H805	Classified	Hourly	60.45	63.47	66.65	69.98	73.48
			Bi-Weekly	4,836.00	5,077.60	5,332.00	5,598.40	5,878.40
			Monthly	10,478.00	11,001.47	11,552.67	12,129.87	12,736.53
			Annual	125,736.00	132,017.60	138,632.00	145,558.40	152,838.40
WATER POLLUTION CONTROL ADMINISTRATOR	H845	Classified	Hourly	52.54	55.17	57.92	60.83	63.88
			Bi-Weekly	4,203.20	4,413.60	4,633.60	4,866.40	5,110.40
			Monthly	9,106.93	9,562.80	10,039.47	10,543.87	11,072.53
			Annual	109,283.20	114,753.60	120,473.60	126,526.40	132,870.40
SENIOR WATER POLLUTION SOURCE CONTROL INSPECTOR	T815	Classified	Hourly	40.20	42.29	44.41	46.51	48.88
			Bi-Weekly	3,216.00	3,383.20	3,552.80	3,720.80	3,910.40
			Monthly	6,968.00	7,330.27	7,697.73	8,061.73	8,427.53
			Annual	83,616.00	87,963.20	92,372.80	96,740.80	101,670.40
WATER POLLUTION SOURCE CONTROL INSPECTOR	T810	Classified	Hourly	36.53	38.44	40.19	42.26	44.36
			Bi-Weekly	2,922.40	3,075.20	3,215.20	3,380.80	3,548.80
			Monthly	6,331.87	6,662.93	6,966.27	7,325.07	7,689.07
			Annual	75,982.40	79,955.20	83,595.20	87,900.80	92,268.80
TECHNICAL INTERN	Z125	Classified	Hourly					15.00
			Bi-Weekly					1,200.00
			Monthly					2,600.00
			Annual					31,200.00

SENIOR WATER RESOURCES ENGINEER	H813	Classified	Hourly	58.40	61.31	64.39	67.60	70.97
			Bi-Weekly	4,672.00	4,904.80	5,151.20	5,408.00	5,677.60
			Monthly	10,122.67	10,627.07	11,160.93	11,717.33	12,301.47
			Annual	121,472.00	127,524.80	133,931.20	140,608.00	147,617.60
SENIOR UTILITIES ENGINEER	H810	Classified	Hourly	58.40	61.31	64.39	67.60	70.97
			Bi-Weekly	4,672.00	4,904.80	5,151.20	5,408.00	5,677.60
			Monthly	10,122.67	10,627.07	11,160.93	11,717.33	12,301.47
			Annual	121,472.00	127,524.80	133,931.20	140,608.00	147,617.60

SEWER COLLECTIONS & WATER DISTRIBUTION								
UTILITIES OPERATIONS AND MAINTENANCE MANAGER	H835	Classified	Hourly	64.51	67.72	71.10	74.66	78.39
			Bi-Weekly	5,160.80	5,417.60	5,688.00	5,972.80	6,271.20
			Monthly	11,181.73	11,738.13	12,324.00	12,941.07	13,587.60
			Annual	134,180.80	140,857.60	147,888.00	155,292.80	163,051.20
UTILITIES OPERATIONS AND MAINTENANCE SUPERVISOR	H830	Classified	Hourly	53.75	56.42	59.26	62.22	65.33
			Bi-Weekly	4,300.00	4,513.60	4,740.80	4,977.60	5,226.40
			Monthly	9,316.67	9,779.47	10,271.73	10,784.80	11,323.87
			Annual	111,800.00	117,353.60	123,260.80	129,417.60	135,886.40
UTILITIES FIELD SERVICES SUPERVISOR	H825	Classified	Hourly	53.75	56.42	59.26	62.22	65.33
			Bi-Weekly	4,300.00	4,513.60	4,740.80	4,977.60	5,226.40
			Monthly	9,316.67	9,779.47	10,271.73	10,784.80	11,323.87
			Annual	111,800.00	117,353.60	123,260.80	129,417.60	135,886.40
WASTEWATER COLLECTIONS SYSTEM SUPERVISOR	H823	Classified	Hourly	51.99	54.57	57.30	60.18	63.19
			Bi-Weekly	4,159.20	4,365.60	4,584.00	4,814.40	5,055.20
			Monthly	9,011.60	9,458.80	9,932.00	10,431.20	10,952.93
			Annual	108,139.20	113,505.60	119,184.00	125,174.40	131,435.20
WATER INSTALLATION AND MAINTENANCE SUPERVISOR	H815	Classified	Hourly	42.37	44.50	46.72	49.07	51.51
			Bi-Weekly	3,389.60	3,560.00	3,737.60	3,925.60	4,120.80
			Monthly	7,344.13	7,713.33	8,098.13	8,505.47	8,928.40
			Annual	88,129.60	92,560.00	97,177.60	102,065.60	107,140.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
SENIOR UTILITY CUSTOMER SERVICE LEADER	M825	Classified	Hourly	36.85	38.13	39.63	41.27	42.94
			Bi-Weekly	2,948.00	3,050.40	3,170.40	3,301.60	3,435.20
			Monthly	6,387.33	6,609.20	6,869.20	7,153.47	7,442.93
			Annual	76,648.00	79,310.40	82,430.40	85,841.60	89,315.20
CROSS CONNECTION CONTROL SPECIALIST	M815	Classified	Hourly	32.04	33.16	34.46	35.89	37.34
			Bi-Weekly	2,563.20	2,652.80	2,756.80	2,871.20	2,987.20
			Monthly	5,553.60	5,747.73	5,973.07	6,220.93	6,472.27
			Annual	66,643.20	68,972.80	71,676.80	74,651.20	77,667.20
WATER METER MECHANIC	M810	Classified	Hourly	31.15	32.34	33.68	35.06	36.46
			Bi-Weekly	2,492.00	2,587.20	2,694.40	2,804.80	2,916.80
			Monthly	5,399.33	5,605.60	5,837.87	6,077.07	6,319.73
			Annual	64,792.00	67,267.20	70,054.40	72,924.80	75,836.80
WATER METER READER	M805	Classified	Hourly	27.84	28.94	30.12	31.22	32.47
			Bi-Weekly	2,227.20	2,315.20	2,409.60	2,497.60	2,597.60
			Monthly	4,825.60	5,016.27	5,220.80	5,411.47	5,628.13
			Annual	57,907.20	60,195.20	62,649.60	64,937.60	67,537.60
BACKFLOW/CROSS CONNECTION TESTER	M800	Classified	Hourly	26.93	28.22	29.53	30.96	32.47
			Bi-Weekly	2,154.40	2,257.60	2,362.40	2,476.80	2,597.60
			Monthly	4,667.87	4,891.47	5,118.53	5,366.40	5,628.13
			Annual	56,014.40	58,697.60	61,422.40	64,396.80	67,537.60
UTILITIES MAINTENANCE SUPERVISOR	H820	Classified	Hourly	48.73	51.16	53.71	56.41	59.23
			Bi-Weekly	3,898.40	4,092.80	4,296.80	4,512.80	4,738.40
			Monthly	8,446.53	8,867.73	9,309.73	9,777.73	10,266.53
			Annual	101,358.40	106,412.80	111,716.80	117,332.80	123,198.40
UTILITIES SERVICE WORKER	M900	Classified	Hourly	30.71	31.93	33.25	34.40	35.75
			Bi-Weekly	2,456.80	2,554.40	2,660.00	2,752.00	2,860.00
			Monthly	5,323.07	5,534.53	5,763.33	5,962.67	6,196.67
			Annual	63,876.80	66,414.40	69,160.00	71,552.00	74,360.00
GENERAL MAINTENANCE								
EQUIPMENT OPERATOR	M400	Classified	Hourly	31.05	32.19	33.46	34.82	36.24
			Bi-Weekly	2,484.00	2,575.20	2,676.80	2,785.60	2,899.20
			Monthly	5,382.00	5,579.60	5,799.73	6,035.47	6,281.60
			Annual	64,584.00	66,955.20	69,596.80	72,425.60	75,379.20
SENIOR UTILITY LEADER	M845	Classified	Hourly	38.84	40.40	42.08	43.54	45.22
			Bi-Weekly	3,107.20	3,232.00	3,366.40	3,483.20	3,617.60
			Monthly	6,732.27	7,002.67	7,293.87	7,546.93	7,838.13
			Annual	80,787.20	84,032.00	87,526.40	90,563.20	94,057.60
UTILITY LEADER	M840	Classified	Hourly	33.77	35.12	36.59	37.86	39.32
			Bi-Weekly	2,701.60	2,809.60	2,927.20	3,028.80	3,145.60
			Monthly	5,853.47	6,087.47	6,342.27	6,562.40	6,815.47
			Annual	70,241.60	73,049.60	76,107.20	78,748.80	81,785.60
UTILITY WORKER	M835	Classified	Hourly	30.71	31.93	33.25	34.40	35.75
			Bi-Weekly	2,456.80	2,554.40	2,660.00	2,752.00	2,860.00
			Monthly	5,323.07	5,534.53	5,763.33	5,962.67	6,196.67
			Annual	63,876.80	66,414.40	69,160.00	71,552.00	74,360.00
SENIOR UTILITY LEADER - SEWER	M920	Classified	Hourly	40.09	41.67	43.37	44.90	46.65
			Bi-Weekly	3,207.20	3,333.60	3,469.60	3,592.00	3,732.00
			Monthly	6,948.93	7,222.80	7,517.47	7,782.67	8,086.00
			Annual	83,387.20	86,673.60	90,209.60	93,392.00	97,032.00
UTILITY LEADER - SEWER	M915	Classified	Hourly	34.86	36.24	37.72	39.04	40.56
			Bi-Weekly	2,788.80	2,899.20	3,017.60	3,123.20	3,244.80
			Monthly	6,042.40	6,281.60	6,538.13	6,766.93	7,030.40
			Annual	72,508.80	75,379.20	78,457.60	81,203.20	84,364.80
UTILITY WORKER - SEWER	M910	Classified	Hourly	31.68	32.94	34.30	35.49	36.87
			Bi-Weekly	2,534.40	2,635.20	2,744.00	2,839.20	2,949.60
			Monthly	5,491.20	5,709.60	5,945.33	6,151.60	6,390.80
			Annual	65,894.40	68,515.20	71,344.00	73,819.20	76,689.60
UTILITIES MAINTENANCE MECHANIC	M415	Classified	Hourly	37.45	38.90	40.43	42.06	43.76
			Bi-Weekly	2,996.00	3,112.00	3,234.40	3,364.80	3,500.80
			Monthly	6,491.33	6,742.67	7,007.87	7,290.40	7,585.07
			Annual	77,896.00	80,912.00	84,094.40	87,484.80	91,020.80

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type	Step A	Step B	Step C	Step D	Step E	
INFORMATION TECHNOLOGY DEPARTMENT								
INFORMATION SYSTEMS MANAGER	H565	Classified	Hourly	55.26	58.02	60.92	63.98	67.18
			Bi-Weekly	4,420.80	4,641.60	4,873.60	5,118.40	5,374.40
			Monthly	9,578.40	10,056.80	10,559.47	11,089.87	11,644.53
			Annual	114,940.80	120,681.60	126,713.60	133,078.40	139,734.40
INFORMATION TECHNOLOGY MANAGER	H566	Classified	Hourly	55.26	58.02	60.92	63.98	67.18
			Bi-Weekly	4,420.80	4,641.60	4,873.60	5,118.40	5,374.40
			Monthly	9,578.40	10,056.80	10,559.47	11,089.87	11,644.53
			Annual	114,940.80	120,681.60	126,713.60	133,078.40	139,734.40
DATA AND SYSTEMS COORDINATOR	H560	Classified	Hourly	49.73	52.21	54.83	57.57	60.44
			Bi-Weekly	3,978.40	4,176.80	4,386.40	4,605.60	4,835.20
			Monthly	8,619.87	9,049.73	9,503.87	9,978.80	10,476.27
			Annual	103,438.40	108,596.80	114,046.40	119,745.60	125,715.20
NETWORK SYSTEMS SPECIALIST	H555	Classified	Hourly	49.16	51.63	54.21	56.91	59.76
			Bi-Weekly	3,932.72	4,130.72	4,336.64	4,553.12	4,781.04
			Monthly	8,520.89	8,949.89	9,396.05	9,865.09	10,358.92
			Annual	102,250.72	107,398.72	112,752.64	118,381.12	124,307.04
GEOGRAPHIC INFO SYSTEMS COORDINATOR	T460	Classified	Hourly	47.97	50.37	52.76	55.42	59.09
			Bi-Weekly	3,837.60	4,029.60	4,220.80	4,433.60	4,727.20
			Monthly	8,314.80	8,730.80	9,145.07	9,606.13	10,242.27
			Annual	99,777.60	104,769.60	109,740.80	115,273.60	122,907.20
PROGRAMMER ANALYST	T455	Classified	Hourly	41.75	43.79	46.07	48.34	50.73
			Bi-Weekly	3,340.00	3,503.20	3,685.60	3,867.20	4,058.40
			Monthly	7,236.67	7,590.27	7,985.47	8,378.93	8,793.20
			Annual	86,840.00	91,083.20	95,825.60	100,547.20	105,518.40
WEB SPECIALIST	T450	Classified	Hourly	41.14	43.22	45.37	47.62	50.01
			Bi-Weekly	3,291.20	3,457.60	3,629.60	3,809.60	4,000.80
			Monthly	7,130.93	7,491.47	7,864.13	8,254.13	8,668.40
			Annual	85,571.20	89,897.60	94,369.60	99,049.60	104,020.80
INFORMATION TECHNOLOGY ANALYST II	T435	Classified	Hourly	41.73	43.81	46.00	48.31	50.73
			Bi-Weekly	3,338.40	3,504.80	3,680.00	3,864.80	4,058.40
			Monthly	7,233.20	7,593.73	7,973.33	8,373.73	8,793.20
			Annual	86,798.40	91,124.80	95,680.00	100,484.80	105,518.40
INFORMATION TECHNOLOGY ANALYST I	T430	Classified	Hourly	37.94	39.83	41.83	43.92	46.11
			Bi-Weekly	3,035.20	3,186.40	3,346.40	3,513.60	3,688.80
			Monthly	6,576.27	6,903.87	7,250.53	7,612.80	7,992.40
			Annual	78,915.20	82,846.40	87,006.40	91,353.60	95,908.80
TECHNOLOGY SOLUTIONS ANALYST II	T445	Classified	Hourly	41.73	43.81	46.00	48.31	50.73
			Bi-Weekly	3,338.40	3,504.80	3,680.00	3,864.80	4,058.40
			Monthly	7,233.20	7,593.73	7,973.33	8,373.73	8,793.20
			Annual	86,798.40	91,124.80	95,680.00	100,484.80	105,518.40
TECHNOLOGY SOLUTIONS ANALYST I	T440	Classified	Hourly	37.94	39.83	41.83	43.92	46.11
			Bi-Weekly	3,035.20	3,186.40	3,346.40	3,513.60	3,688.80
			Monthly	6,576.27	6,903.87	7,250.53	7,612.80	7,992.40
			Annual	78,915.20	82,846.40	87,006.40	91,353.60	95,908.80
GEOGRAPHIC INFO SYSTEM TECHNICIAN II	T465	Classified	Hourly	37.89	39.79	41.77	43.85	46.08
			Bi-Weekly	3,031.20	3,183.20	3,341.60	3,508.00	3,686.40
			Monthly	6,567.60	6,896.93	7,240.13	7,600.67	7,987.20
			Annual	78,811.20	82,763.20	86,881.60	91,208.00	95,846.40
GEOGRAPHIC INFO SYSTEM TECHNICIAN I	T464	Classified	Hourly	34.47	36.18	37.99	39.90	41.89
			Bi-Weekly	2,757.60	2,894.40	3,039.20	3,192.00	3,351.20
			Monthly	5,974.80	6,271.20	6,584.93	6,916.00	7,260.93
			Annual	71,697.60	75,254.40	79,019.20	82,992.00	87,131.20

**SALARY PLAN FOR ALL CLASSIFICATIONS
(PER MUNI CODE SEC.2-4.30)
FY 2019**

ATTACHMENT III
Recommended by
Personnel Commission
on July 12, 2018
Approved by Council
on July 24, 2018

Classification Title	Job Code	Service Type		Step A	Step B	Step C	Step D	Step E
INFORMATION TECHNOLOGY TECHNICIAN II	T425	Classified	Hourly	37.89	39.79	41.77	43.85	46.08
			Bi-Weekly	3,031.20	3,183.20	3,341.60	3,508.00	3,686.40
			Monthly	6,567.60	6,896.93	7,240.13	7,600.67	7,987.20
			Annual	78,811.20	82,763.20	86,881.60	91,208.00	95,846.40
INFORMATION TECHNOLOGY TECHNICIAN I	T424	Classified	Hourly	34.47	36.18	37.99	39.90	41.89
			Bi-Weekly	2,757.60	2,894.40	3,039.20	3,192.00	3,351.20
			Monthly	5,974.80	6,271.20	6,584.93	6,916.00	7,260.93
			Annual	71,697.60	75,254.40	79,019.20	82,992.00	87,131.20
INFORMATION SYSTEMS SUPPORT TECHNICIAN	T415	Classified	Hourly	31.04	32.58	34.26	35.96	37.69
			Bi-Weekly	2,483.20	2,606.40	2,740.80	2,876.80	3,015.20
			Monthly	5,380.27	5,647.20	5,938.40	6,233.07	6,532.93
			Annual	64,563.20	67,766.40	71,260.80	74,796.80	78,395.20
DATA SYSTEMS OPERATOR	C450	Classified	Hourly	27.88	29.15	30.60	32.05	33.55
			Bi-Weekly	2,230.40	2,332.00	2,448.00	2,564.00	2,684.00
			Monthly	4,832.53	5,052.67	5,304.00	5,555.33	5,815.33
			Annual	57,990.40	60,632.00	63,648.00	66,664.00	69,784.00
AUDIO VIDEO SPECIALIST	T410	Classified	Hourly	29.57	31.02	32.61	34.22	35.85
			Bi-Weekly	2,365.60	2,481.60	2,608.80	2,737.60	2,868.00
			Monthly	5,125.47	5,376.80	5,652.40	5,931.47	6,214.00
			Annual	61,505.60	64,521.60	67,828.80	71,177.60	74,568.00
VIDEO ASSISTANT	T400	Classified	Hourly					16.24
			Bi-Weekly					1,299.20
			Monthly					2,814.93
			Annual					33,779.20
INFORMATION TECHNOLOGY INTERN	Z121	Classified	Hourly				15.00	20.00
			Bi-Weekly				1,200.00	1,600.00
			Monthly				2,600.00	3,466.67
			Annual				31,200.00	41,600.00