



Transportation Division

Federal Project Quality Assurance and
Quality Control Plan
September 2018

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ACRONYMS:

- AASHTO – American Association of State Highway Transportation Officials
- A&E – Architecture and Engineering Services
- CE – Construction Engineering
- CIP – Capital Improvement Program
- COG – City of Gresham
- CLA – Certified Local Agency
- CPM – City Project Manager (Gresham)
- CPO – Certification Program Office (ODOT)
- DE – Development Engineering (City of Gresham)
- DES – Department of Environmental Services (City of Gresham)
- EOR – Engineer of Record
- FHWA – Federal Highway Administration
- GIS – Geographic Information System
- LAL – Regional Local Agency Liaison (ODOT)
- LAG – Local Agency Guidelines (ODOT Manual)
- LPA – Local Project Agency
- MUTCD – Manual on Uniform Traffic Control Devices
- NEPA – National Environmental Policy Act
- OCR – Office of Civil Rights (ODOT)
- ODOT – Oregon Department of Transportation
- PE – Preliminary Engineering
- PIP – Public Improvement Plan
- PS&E – Plans, Specifications & Estimate
- ROW – Right of Way
- UD&P – Urban Development and Planning (City of Gresham)

ATTACHMENTS:

- A - City of Gresham Project Delivery Guide
- B - City of Gresham Design Exception Process and Forms
- C - City of Gresham Certified Local Agency ADA Compliance Plan

City of Gresham Federal Project Quality Assurance and Quality Control Plan (QA/QC Plan)

PURPOSE

This Federal Project Quality Assurance and Quality Control Plan (QA/QC Plan) is to document the City of Gresham (COG) procedures for ensuring quality on FHWA Federally Funded projects.

I. INTRODUCTION AND BACKGROUND

The City of Gresham, Transportation Division has delivered several federal-aid projects providing project design, consultant selection, advertisement bid & award, construction surveying, construction inspection, and other construction administration functions.

FHWA delegates authority to ODOT for approving project development and construction administration. ODOT has the option of delegating some of this authority to qualified local agencies. The City of Gresham is fully certified in the following areas of project delivery:

- Consultant Selection
- Design
- Advertise, Bid & Award
- Construction Contract Administration

As a Certified Local Agency (CLA), the City of Gresham follows its own approved processes for owning and managing contracts for federal projects. ODOT remains responsible to FHWA for the expenditure of federal funds, and will continue to provide limited oversight of City of Gresham processes pertaining to, design, right of way acquisition, NEPA environmental compliance and project utility coordination, project advertisement, bid and award and construction contract administration. Authorization is required by ODOT prior to initiating any of these phases.

Through its relationship with the City, the ODOT Local Agency Certification Program Office (CPO) will annually review the City's programs and procedures related to certified project delivery to ensure compliance with documented procedures in the Local Agency Guidelines (LAG) Manual LAG.

In addition, ODOT remains responsible for civil rights program administration, environmental approval, right of way certification, utility reimbursement, final project acceptance and other required activities involving the use of federal funds. This document is to record City of Gresham's procedures for ensuring quality and mitigating risks on FHWA-funded projects.

A. Staffing Resource Management and Key Personnel

Staffing and resource management for projects is performed by the Transportation Division Senior Engineer. The Senior Engineer annually develops a 5-year Capital Improvement Plan (CIP) that identifies upcoming workload and associated budget needs. Once approved by Council, the Senior Engineer uses this plan to generate a Workload Schedule. All CIP demands are placed on a timeline in the schedule and the resources required to accomplish each demand is listed. The development of the CIP and Workload Schedule is an iterative process that includes the

exploration of budget constraints, staff workload leveling and the management of related resources. The result of this annual effort is the distribution of workload throughout Transportation Division staff.

Provided in Table 1 below is a list of key personnel tasked with delivering various elements of City Federally Funded Transportation Projects. Specific individuals for each role are identified and documented to CPO annually in the City’s Qualified Staff and Approval Authority Matrix.

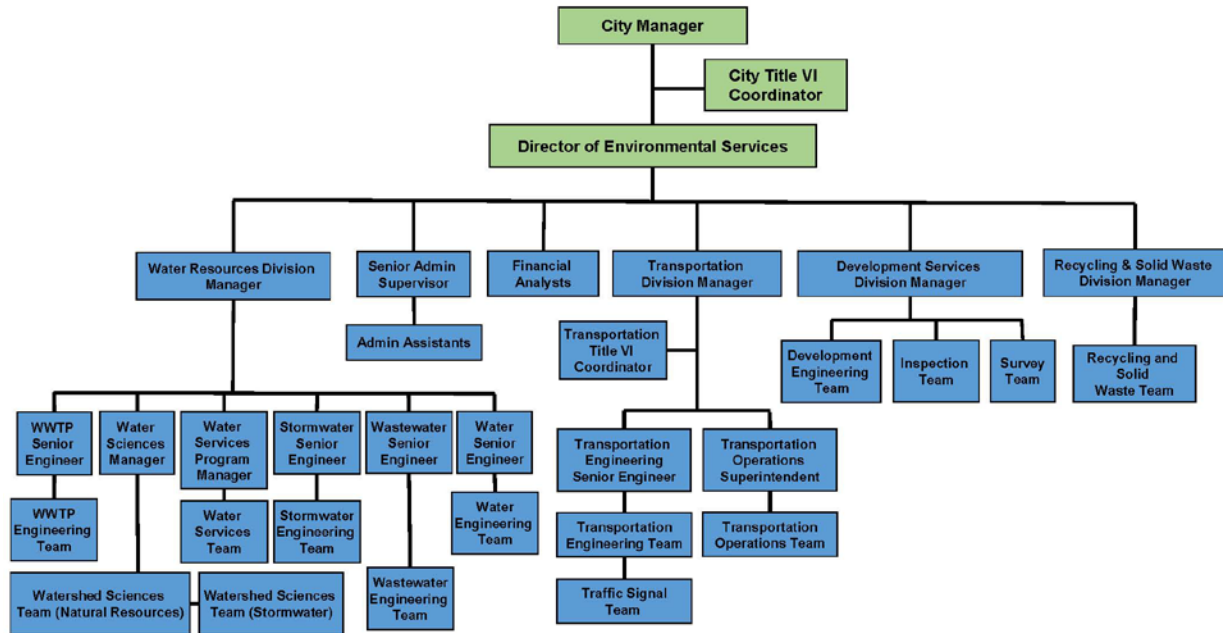
Table 1 – Project Delivery COG Key Personnel

Title	Responsibility
Transportation Division Manager	Oversees City of Gresham Transportation Engineering Division.
Senior Transportation Engineer	Senior Engineer Oversees City Certification Program, QA/QC Review and Project Management
Transportation Civil Engineer II	Project Manager,/Designer Certification Program Coordinator
Transportation Civil Engineer II	Project Manager/Designer
Transportation Civil Engineer I	Project Manager/Designer
Transportation Civil Engineer I	Project Manager/Designer
Transportation Civil Engineer I	Project Manager/Designer
Engineering Tech IV	QA/QC Coordinator
Transportation Planner	Title VI Coordinator, Civil Rights and Wage Compliance
Tech IV	Drafting Technician
Senior Public Works Inspector	Construction Inspection
Public Works Inspector	Construction Inspection
Public Works Inspector	Construction Inspection
City Surveyor	Construction Survey
Engineering Tech III	Construction Survey
Transportation Administrative Assistant	Records Retention
Signal Electrician Supervisor	Traffic Signals Inspection
Signal Electrician	Traffic Signals Inspection
Signal Electrician	Traffic Signals Inspection
Financial Analyst	Project Financial Review
Financial Analyst	Project Financial Review

II. ROLES AND RESPONSIBILITIES

The City of Gresham Department of Environmental Services (DES) is comprised of five divisions each of which is overseen by the DES Director. The DES Director’s authority over DES is delegated by the City of Gresham Manager. Of the five divisions managed by the DES Director, two are integral to the City’s efforts to achieve Local Agency Certification. These Divisions are the Transportation Engineering and Development Engineering Divisions. The primary responsibility rests with the Transportation Engineering Division. Development Engineering (DE) provides support in the form of Survey and Construction Inspection for Federal Aid Projects. Figure 1 illustrates the current DES organizational chart.

Figure 1 – DES Organizational Chart



The Transportation Division Manager is ultimately responsible for the Transportation Division and its efforts to become a Certified Local Agency. The Transportation Engineering work group within the Transportation Division is critical to the City’s efforts to achieve Local Agency Certification with support from DE Survey and Inspection Services.

The Transportation Division Manager supports Local Agency Certification and works through staff to assure that the City of Gresham maintains its local agency certification status. The Transportation Engineering Senior Engineer manages the Transportation Capital Improvement Projects (CIP). This person is a Professional Engineering (PE), licensed in Oregon, and reports directly to the Transportation Manager on matters related to the ODOT Certification process.

Assisting the Senior Engineer is a team of project managers and support staff. Collectively, the Transportation Division and Development Engineering Construction Survey and Inspection Division have Registered Professional Engineers, Registered Professional Land Surveyors, and ODOT-Certified Construction Inspectors. The Transportation Division promotes citizen participation in the public process during preliminary design and project delivery phases of projects.

The City of Gresham has selected the Senior Engineer to lead the City’s certification efforts and act as a liaison with ODOT and City staff. Provided in Table 2 is the City of Gresham Certified Project Approval Matrix, which designates approval authority over specific elements of project delivery.

Table 2 – COG Approval Authority Matrix

Responsibility	Position Title
Project prospectus will be reviewed and approved by	Transportation Senior Engineer
Local Agency Supplemental Agreement will be reviewed and approved by	City Attorney/City Manager
Audit and Financial controls will be reviewed and approved by	DES Financial Analyst
Contract Administration for consultant contracts will be supervised by the following procurement staff with appropriate certification	Project Manager
Contract design plans, specifications and estimate of cost will be reviewed and approved by state of Oregon registered Professional Engineer	DES Transportation Professional Engineers
LPA Coordinator reviewing and approving PS&E package	Transportation Senior Engineer
Agreements/Contracts will be signed by the following local official <ul style="list-style-type: none"> ▪ Railroad C&M ▪ Utility ▪ A&E and related consultant selection ▪ Right of Way service agreements 	City Manager or Designee
Award of Contract will be signed by the following	City Manager or Designee
Contract administration for construction will be supervised by the following state of Oregon registered Professional Engineer	DES Transportation Professional Engineers
Title VI plan will be reviewed and administered by	City/DES Title VI Coordinator

III. COMMUNICATIONS PLAN

A. Internal Communications Plan

All DES Transportation projects are assigned to a City Project Manager (CPM) to manage from the preliminary and final design phase to final closeout. The CPM sets up a project development team for design and construction. A typical project development team includes:

- Senior Transportation Engineer to oversee and provide approvals for various parts of the delivery process.
- Professional Engineer to conduct design work including identifying design criteria, performing design calculations, determining alignments and profiles. This team member may also be the CPM.
- Senior Transportation Engineer to review traffic design items including traffic impact analysis, temporary traffic control, permanent signing and striping needs and multi-modal design considerations.
- Division Administrative Assistant to assist with public outreach and website development.
- Construction Inspector to provide constructability review.

- City Surveyor to assist with ROW needs, pre-design survey and construction surveying needs.
- ROW Agent as needed
- Consultant Technical Experts as needed
- QA/QC Coordinator to assist with construction QA/QC
- Division Specialist to assist with Labor Compliance and Civil Rights Compliance
- Technical and Administrative staff

The CPM serves as the hub for communication among team members and to the State Local Agency Liaison. In addition to forming the project development team, the CPM is responsible for following the most recent versions of the City's boilerplate project delivery documents including:

- The Preliminary and Final Engineering Development Guide
- The City of Gresham General Conditions for Construction for Federal Aid Transportation Projects
- CIP Federally Funded Transportation Bid Book Template

In addition, the CPM shall utilize information contained in the ODOT Local Agency Guidelines (LAG) Manual.

B. External Communication Plan

Communications with external stakeholders is outlined as follows:

ODOT – The CPM communicates with ODOT Liaison throughout project development. During the plan development phase of the project. The Project Engineer submits PS&E documents to the Local Agency Liaison at 30%, 90% and Final Signed plan development milestones. There is no Technical Services review and comment in this phase, except for the special communication items listed below.

Special communication is necessary to address the Environmental, Right of Way and Civil Rights aspects of project delivery, bridge design work, and any work on or along the Oregon State Highway System. The CPM communicates with ODOT subject matter experts throughout the project delivery for these technical areas.

The CPM may customize the communication plan with ODOT based on the guidance in this quality control plan.

Affected Local Agencies – When a project affects another local agency, the CPM shall identify a representative from the respective agency to coordinate project delivery. The affected local agency contact person will be invited to participate in project coordination meetings as needed.

Utility Companies – Once utilities in the project area have been identified, the CPM will contact affected utility companies to provide preliminary project information of the project scope and schedule. At the 60% plan development, the CPM shall send out Utility Notification Letters using the letter templates provided in the *Project Delivery Guide* (See Attachment A). Copies of the utility correspondence including the Utility Conflict Letters shall be provided to the ODOT Utility Liaison for certification.

General Public Outreach – Communication with the general public will be coordinated through the City’s Communications team. The CPM shall initiate a work request with the Communications team through the City’s Intranet site.

Public Outreach (Project Impact Area) – Citizens within or directly adjacent to the project work area shall be notified with a project description, scope and schedule. The timing and scale of notification shall be guided based on the individually developed Public Involvement Plan (PIP) for each project. The PIP may address any targeted outreach for Environmental Justice (EJ) communities. Information about the PIP and how to develop it is provided in the *Project Delivery Guide* (See Attachment A). Gresham Also has committed through its Title VI Plan to make every reasonable effort to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of the Local Transportation Agency’s (LTA) programs, policies, and activities on minority populations and low-income populations. As part of this Plan, Gresham collects data and documents activities it takes to support nondiscrimination, such as the number of public meetings, the dates held, and steps taken to notify individuals who may be affected by LTA actions as a result of the meeting(s); the number and demographics of impacted and/or benefitted neighborhoods; steps the LTA has taken to meet any Limited English Proficiency needs where warranted including the use of interpreters, translators, advertising, or providing printed media in languages other than English; the number of times the LTA performed Limited English Proficiency activities along with documentation of the circumstances under which the activities were performed; the date of service requests, the date of resolution, and the location where the LTA maintains data related to such requests; and the nature of discrimination complaints (if any) and the resolution.

Regulating Agencies – Communication with regulating agencies is conducted throughout the project development to obtain the necessary permits. Through the ODOT LAL, the CPM may ask representatives from various regulating agencies to participate in project meetings.

IV. QUALITY ASSURANCE CONSULTANT SELECTION

Consultant selection for Architecture and Engineering Services (A&E) will be led by the CPM in accordance with the City’s *Personal Services Manual* located on the City’s Intranet site, and the most current version of the *ODOT LPA A&E Requirement Guide on ODOT’s website*. The CPM shall utilize ODOT approved RFP and Contract templates for formal competitive RFPs for contracts valued greater than the City’s direct appoint threshold. For services less than the City’s direct appoint threshold, the CPM should contact CPO to contract delivery options. The CMP should be aware of all DBE program requirements during consultant selection. Information regarding DBE program requirements during Consultant Selection is provided in the *ODOT LPA A&E Requirements Guide*.

Upon development of the Prospectus, the CPM shall prepare the RFP documents using ODOT approved RFP templates and following the procedures outlined in Section IV of the City’s *Public Contracting Rules*. The CPM shall establish a budget, and review it with the Senior Engineer and the ODOT Liaison. The CPM prepares an RFP in conformance with the above mentioned documents to ensure compliance with FHWA and ODOT provisions.

An evaluation committee to evaluate the submitted proposals shall be selected by the CPM. The evaluation committee shall be comprised of at least 3 people, with at least one from outside the division or department. Committee members may be from outside the City of Gresham.

Additional detail information regarding the process and procedures related to A&E Consultant Selection can be found in Section IV of the City's *Public Contracting Rules*.

V. QUALITY ASSURANCE DESIGN

Projects shall be developed in conformance with the Transportation Division's *Project Delivery Guide*. The *Project Delivery Guide* outlines all significant internal and external submittals including necessary deliverables and approvals to be filed. A copy of the Project Delivery Guide is provided in Attachment A.

Plans, specifications and estimates (PS&E), and preliminary environmental work are prepared by COG Transportation Engineering staff or consultants. The core design team includes:

- The Senior Transportation Engineer (Registered Professional Engineer),
- A Project Engineer/Design Engineer (May be a Professional Engineer or an EIT)
- At least one Engineering Technician

There are additional design team members within the Department of Environmental Services that participate and provide input on the project design throughout the process. All bridges and structures are designed by qualified consultants, on FHWA-funded projects, with the design reviewed by the ODOT Bridge Group and Engineering Division staff.

General oversight of PS&E preparation is provided by the CPM and the Senior Transportation Engineer. Overall Design Approval is by the Senior Transportation Engineer.

Development of plans, specifications and estimates follows a 30%-60%-90% - Final design review process, with ODOT reviews occurring at 30%, 90% and Final (signed) development. This process involves a distribution of design documents to a variety of internal and external reviewers, after which comments are discussed with the Senior Transportation Engineer. Once comments are included in the plans, the Senior Transportation Engineer will sign off on the revised plan set for the next submittal.

After the 90% design review, the PS&E documents are revised accordingly and then reviewed by the CPM and Senior Transportation Engineer prior to sending them to ODOT for review. The CPM will complete and sign ODOT's Certified Local Agency PS&E Checklist and submit to the Senior Engineer. The Senior Engineer shall perform the QC check, make any needed corrections, signs and submits to the ODOT liaison for processing along with the required submittal documents. The CPM is responsible for ensuring the checklist and submittals are complete. Final PS&E documents require review by the Senior Transportation Engineer. The Engineer of Record certifies and approves the design.

A. Environmental Coordination

Because ODOT retains the approval authority over the environmental documentation, the CPM will coordinate and submit all environmental documentation starting with prospectus through the Construction Engineering (CE) close out documents.

B. Civil Rights

Because ODOT retains authority over the Civil Rights program, the CPM submits, along with the 90% PS&E package, the Civil Rights Request for Goals (ODOT form 731-0663 to determine civil rights goals) to the ODOT Liaison and ODOT civil right officer. Once this goal is set, the CPM includes the appropriate specifications in the project. The CPM checks the ODOT website to ensure that the latest form is being used. The ODOT Office of Civil Rights (OCR) also reviews the Bid Book at 100% PS&E, though this is coordinated through the LAL. It is the CPM's responsibility to incorporate the DBE Goals and DBE provisions into the 100% PS&E for ODOT review and authorization to advertise.

Section C, Chapter 8, of the Local Agency Guidelines provides guidance and a tracking tool for certified Local Public Agencies (LPAs) to follow on ODOT Civil Rights programs:

1. Disadvantaged Business Enterprise (DBE)
2. Equal Employment Opportunity (EEO)
3. On-the-Job Training (OJT) / Apprenticeship Training Program (ATP)
4. Civil Rights

C. Buy America

It is the CPM's responsibility to include "Buy America" provisions on any project involving federal funds at any phase. The CPM needs to ensure the latest version of the "CIP Federally Funded Transportation Bid Book Template" is used, as it contains all necessary provisions required for the project. The latest version of the bid book template is available through the Gresham City Attorney's website.

D. Cargo Preference Act

It is the CPM's responsibility to include language about the Cargo Preference Act Requirements in the contract special provisions for all projects with Federal Funds. The CPM may find boilerplate language regarding the Cargo Preference Act via the ODOT boilerplate special provision 160.21. If federal highway funds are involved on the project, the Contractor shall comply with the Cargo Preference Act and implementing regulations for use of United States-flag ocean vessels transporting materials or equipment acquired specifically for the Project.

E. Design Exceptions

It is the CPM and Senior Engineer's responsibility to ensure that all Federal Aid projects be designed to the current standards provided in the American Association of State Transportation Officials (AASHTO) and the Manual on Uniform Traffic Control Devices (MUTCD) publications. Further, with few exceptions, all projects within Gresham are located on Gresham owned and operated facilities and are subject to City of Gresham design standards. The City of Gresham *Project Delivery Guide* outlines the design exception process and contains applicable forms. The Project Delivery Guide is provided in Attachment A of this document. . Design exception requests are submitted by the CPM to the Senior Transportation Engineer, who will concur with the request. All design exceptions must contain an EOR stamp on the forms provided in Attachment B. Design exceptions for projects on or along the Oregon State Highway System will be reviewed by ODOT.

F. Right of Way

Details regarding the administration of design elements for Federally Funded Transportation Projects in Gresham is provided in the City of Gresham *Project Delivery Guide* which is included as Attachment A of this document.

G. Single Act of 1984

In accordance with 2 CFR Part 200, subpart F, The City of Gresham has a single audit performed by our external auditors on an annual basis. The audit process is managed by the City's Finance and Management Services Division (FMS). Copies of the audit report are available through the City's FMS Office.

H. Title VI Compliance

The City has structured its Title VI program with a city-wide Title VI Coordinator and also a Transportation-specific Title VI Coordinator to handle Transportation projects. The City participates in an annual review of the Title VI Plan. The Annual review of the Title VI Plan is conducted by the City's Office of Governance and Management (OGM). The City of Gresham Title VI Implementation Plan is due to ODOT's Office of Civil Rights every three years for review. An Annual Accomplishments Report is due annually.

Additional information regarding the City's Title VI Program including complaint procedures can be found at the following web address:

<https://greshamoregon.gov/Title-VI-Program/>

I. ADA Compliance

City procedures for ADA compliant facilities are documented in the City's Certified Local Agency ADA Compliance Plan provided in Attachment C of this guide.

VI. QUALITY ASSURANCE – ADVERTISE, BID & AWARD

The CPM is responsible for ensuring that the bidding process complies with all federal requirements. The City's Construction Manual provides guidance for advertising projects.

After opening bids, the Transportation Administrative Assistant compiles the bid documents and verifies bidder information and submittals for completeness (such as license status, responsibility, and insurance forms). The CPM is responsible for reviewing the bids for unbalancing and responsiveness in compliance with 23 CFR 635.114(c). The bid documents are reviewed by the Senior Transportation Engineer prior to recommending acceptance and award of the low bid. The intent to award is then published and upon completion of the protest period the contract award and execution process ensues.

Depending on the contract value, and after review of the form by the City Attorney's Office, the City Manager's Office signs the contract documents as applicable. Each person reviews and recommends execution of the contract prior to it being passed on to the next higher person in the organization chain.

The CPM is responsible to ensure the advertising, as well as bid and award information, is sent to the ODOT Local Agency Liaison in order to proceed with construction.

The CPM will complete a draft of ODOT's Certified Local Agency Ad, Bid and Award Checklist and submit to the Senior Engineer along with the purchase order requisition for approval.

VII. QUALITY ASSURANCE - CONSTRUCTION

A. Pre-Construction

The DES Transportation CPM invites City staff, ODOT staff, Engineer of Record, environmental compliance staff, utility providers, the Contractor and subcontractors to the pre-construction (pre-con) meeting. The City has developed agenda template documents for the CPM to use.

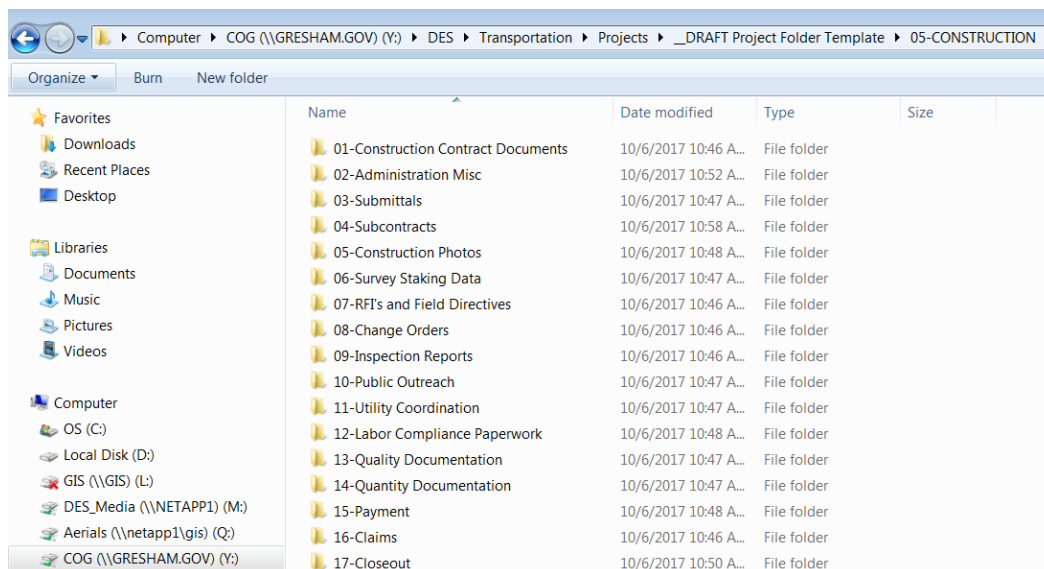
Pre-Construction Resources:

- ODOT Construction Manual Chapter 11
- ODOT LAG Manual Section C, Chapter 16.4.2.1
- City of Gresham Construction Manual Section 1.2

B. Construction

The City will appoint a Quality Control Compliance Specialist (QCCS) to oversee testing. The QCCS role is to monitor both the QC and QA test results during project construction. The CPM should consult the ODOT QCCS Manual for information regarding required QCCS certifications. The CPM is responsible for assuring that all necessary project documentation is received.

Construction documentation and records are filed and organized electronically using the file structure illustrated below:



Project binders with corresponding tabs for each bid item will be prepared by the CPM and QA/QC Coordinator to collect quantity installation sheets as they arrive from inspectors. Additional binders for inspection daily reports, and other field acquired documentation will be prepared by the CPM and QA/QC Coordinator as needed. A QA/QC Coordinator assigned to the project will help track this information and will notify the inspector of deficient items prior to payment of the quantity covered. The City QA/QC Coordinator will invite the ODOT Region Assurance Specialist (RAS) assigned to the project to review project file setup during the conditional certification phase. Preparation for construction documentation and processes shall follow the ODOT Construction and Inspection Manuals.

C. Quality and Quantity Documentation

For Federally Funded Local Agency Project, the City will follow Quality and Quantity documentation procedures contain in the ODOT Construction Manual 12B and 12D, generally, described as follows.

All City Inspectors must have ODOT General Construction Inspection Certification, and Environmental and Erosion Control certification. Inspectors must have additional specialty certifications for the duties they are assigned. For projects that require inspection certifications beyond those mentioned, the City will look to obtain certifications via ODOT training, or contract with a third party inspection service. The Inspectors are required to document the work on the General Daily Progress Report Form (734-3474). The General Daily Progress Report is filed sequentially in the project binder(s). Quantity documentation for each Pay Item will be completed using the ODOT Installation Sheet Form (734-2605). The Inspector collects and reviews all materials certifications, the QA/QC Coordinator reviews and organizes the documents, and the CPM reviews and approves the documentation.

The QA/QC Coordinator also tracks project quality documentation through Test Summary A, B and B-QA forms for field and non-field tested materials. Collecting and tracking Certificates of Materials Origin (CMOs) for any steel permanently incorporated into the work is also the responsibility of the QA/QC Coordinator. If foreign steel is incorporated into the project, then the QA/QC Coordinator will also track the material in the Foreign Steel Summary (Form 734-1968). In no case will the amount of foreign steel incorporated be greater than \$2,500 or 0.1% of the contract amount, whichever is greater. Additional detail regarding source of material can be found in COG General Conditions 160.20. Quality documentation for materials shall be documented using a Field Inspection Report (ODOT Form 734-3469).

The CPM is responsible for coordinating assurance reviews by City staff other than the QA/QC Coordinator and will work with the QA/QC Coordinator to address any deficiencies found. Deficiencies noted by the RAS in Document Review Reports (DRRs) will be addressed by City staff prior to the next progress payment.

D. Labor Compliance

Labor compliance is tracked by the City's Division Specialist who assures that documentation from the Contractor is received in a timely manner and Employee Wage

Interviews are conducted. Wage interviews are conducted by the Division Specialist or the Inspector. The Division Specialist reviews certified payroll with the applicable BOLI or Davis-Bacon wage rates, cross referencing Daily Progress Reports, certified payrolls, and Employee Interviews. Necessary corrections are requested from the Contractor and disputes are referred to BOLI and to the ODOT Labor Compliance Officer as necessary.

E. Civil Rights Compliance

Civil Rights tracking and compliance during construction is done in accordance with the Local Agency Guidelines Manual, Section C, Chapter 8. The City's Division Specialist is the primary point of contact between the City of Gresham and the ODOT Office of Civil Rights (OCR) Region 1 Civil Rights Field Coordinator. During construction, duties of the City's Division Specialist include:

- Obtain, review and forward Pre-Con letters to the Contractor. Pre-Con letters are sent from ODOT OCR within 3 days of the project Award Letter.
- Coordinate an Internal Pre-Con Meeting with the City Project team and the ODOT field coordinator.
- Participate in and address any issues that result from ODOT Field Coordinator OCR Quarterly Audits.
- Obtain and review copies of all Contractor's Request for Subcontract Consent (ODOT Form 734-1964) and Report on Contractor's Request for Subcontract Consent (ODOT Form 734-1395). Full copies of DBE subcontracts along with the above mentioned forms are sent to the ODOT OCR Field Coordinator.
- Obtain, review and forward copies of DBE 3A Work Plans (ODOT Form 734-2165A). 3A Work Plans need to be received at the Pre-Con for all committed DBE's.
- Perform a Commercially Useful Function (CUF) evaluation of each DBE performing work on the project including committed and non-committed DBEs (ODOT Form 734-2165) and submit it to the ODOT OCR Field Coordinator.
- Perform DBE Truck Monitoring, if applicable.
- Review Summary Report of Subs Paid (SRSP) (ODOT Form 734-2882) for accuracy and completeness and then forward them to the ODOT Region 1 Civil Rights Field Coordinator for final approval.
- Review Monthly Employment Utilization Report (eMeur) (ODOT Form 734-0668), submitted by the prime contractor, for correctness, and forward to the ODOT OCR Field Coordinator.

The CPM and Division Specialist's reviews are for compliance with the LAG Section C, Chapter 8, Section D. If there are On the Job Training funds awarded to the contractor, the Division Specialist will receive and review an Apprentice/Trainee Approval Request (ATAR) form, Training Program form and Monthly Progress Report (MPR) forms before forwarding to the ODOT Field Coordinator. Civil Rights documentation is kept current throughout the project. The CPM will work with the Department Specialist to resolve any outstanding issues documented in the Civil Rights Quarterly Audit Reports completed by the Civil Rights Field Coordinator prior to the subsequent quarterly audit.

The CPM may delegate some duties for documentation review to the Inspector, QA/QC Coordinator, and the Division Specialist. However, the CPM is responsible for assuring civil rights compliance on projects.

F. Materials Testing

Field Tested Materials

The testing of Field Materials follows ODOT's current version of the "Manual of Field Test Procedures". The City will appoint a Quality Control Compliance Specialist (QCCS) to oversee Quality Assurance (QA) testing. The construction contractor is responsible for quality control (QC). Quality Assurance (QA) will be performed by consultants working for the City and by qualified City staff. The QA/QC Coordinator will work with the QCCS to assure that the QCCS has all of the necessary technician certifications per the MFTP. The QA/QC Coordinator and QCCS also work together to ensure that testing is accomplished according to the test procedures and frequencies in the MFTP.

Third Party Resolution is used when the Agency's Quality Assurance test results conflict with ongoing Quality Control test results and when verification requirements are not met, or the conflict cannot be resolved. Third-Party Resolution can be requested by either the Contractor or the CPM. Third Party Resolution testing shall be performed by an ODOT certified Dispute Resolution Laboratory. The City will contract out services with an independent laboratory to perform third party and dispute resolutions. This is normally done by testing quality control production backup samples, but may include other resolution techniques or procedures as determined by the EOR for the corresponding specification section. The test result(s) of the Dispute Resolution Laboratory performing dispute resolution materials testing for any or all disputed test results will be considered the actual test results and will therefore be used for acceptance of the material.

All material's "acceptance" is based on the ODOT MFTP. All Quality Assurance testing will be performed by an ODOT certified lab hired by the City. Conflicts will be resolved as noted above.

Non-Field Tested Materials

The City uses the ODOT Non-Field Tested Materials Acceptance Guide (NFTMAG) and the ODOT Qualified Products List (QPL). The NFTMAG does not take precedence over the Project Special Provisions. For non-field tested materials requiring lab testing as described in the NFTMAG, typically structural installation elements, the city shall utilize Consultant support to coordinate, review and accept materials.

G. Financial Controls

The Project Inspector and QA/QC Coordinator compile supporting documentation and calculate item quantities for contractor payments. The supporting documents are reviewed by the CPM. Payments are calculated and prepared by the QA/QC Coordinator, reviewed and recommended for payment by the CPM, and reviewed and approved by the Senior Transportation Engineer prior to forwarding the pay estimate to the DES Financial Analyst for payment. The DES Financial Analyst staff process the invoice for payment to the contractor. Contract progress payments are made monthly, at a time established by the City and the contractor at the Pre-construction meeting. Monthly progress payments are processed through this established time of the month and remain the same throughout the project, e.g. the third Thursday of the month. Interest will accrue on the amount due

less any retainage beginning 30 days after the close of the pay period, in accordance with ORS 279C.570. The City withholds 2.5% retainage, which is specified in the contract provisions. The Contractor may make requests for payment of materials on hand in accordance with Section 00195.60 of the City of Gresham General Conditions for Construction for Federal Aid Projects (Gresham General Conditions). The City follows the procedures established by the Gresham General Conditions. In no instance will the materials on hand payment exceed the contract price of the item, less any estimated installation costs as established by the CPM.

Payment for an item will not be made until the Inspector, QA/QC Coordinator and CPM have verified that all required quality and quantity documentation has been received. It is the responsibility of the CPM to verify that this has been done.

It is the CPM's responsibility to monitor overpayments throughout the duration of the construction contract and to balance overpayments if necessary.

H. Changes, Extra Work and Claims

Sections 00195 and 00196 of the Gresham General Conditions describe procedures and documentation requirements for changes and extra work on projects. When a changed condition is encountered as identified in section 195.20 of the Gresham General Conditions, the Inspector and QA/QC Coordinator compile supporting documentation for any proposed changes, and the CPM reviews the supporting documentation and recommends any needed changes to the contract. The CPM requests a quote from the Contractor for any changes and the CPM or Inspector will verify that the quote is reasonable based upon an independent cost estimate and review of average bid prices. The CPM is responsible for negotiating Change Orders. Any recommended changes must also be reviewed and approved by the Senior Transportation Engineer. The City will use its own standard form for project Change Orders.

Pursuant to the ODOT Local Agency Guidelines Manual, there are specific changes that shall be pre-approved in writing by ODOT and/or FHWA prior to the work. Change orders that increase the scope and intent of the contract documents must be approved by ODOT per the Approval Authority Matrix in Chapter 2, Appendix A of the Local Agency Guidelines.

The City makes every effort to avoid construction claim situations. The City strives to be proactive in resolving issues so that claim situations may be avoided. In the event an issue does arise, the City process is described in the City of Gresham *General Conditions for Construction for Federal Aid Transportation Projects* with any revisions noted in the Project Special Provisions. The City has a two-step claim review process which is outlined in Section 199.40 of the City of Gresham *General Conditions for Construction for Federal Aid Transportation Projects*. The first step includes an Environmental Services Director (or Designee) Review. The second step is arbitration and litigation.

I. Force Account Work

The COG General Conditions Section 00197 provide details regarding payment for Force Account Work. CPM's should consult Section 00197 prior to issuing Force Account Work. In the event of Force Account work ordered by the CPM, Construction Inspectors track time and materials required to perform force account work on a Daily Force Account

Record (ODOT Form 734-3428). This form is agreed upon and signed by both the Engineer's representative (Project Inspector) and the Contractor's representative (Contractor Foreman or Superintendent). This information is reviewed by the CPM and QA/QC Coordinator. Final review and approval of contract payments is then made by the CPM and Senior Transportation Engineer.

J. Project Closeout

At the conclusion of bid item work, and once the project has been deemed substantially complete through 2nd Notification, the CPM ensures that final project documentation according to Chapter 17 of the ODOT LAG Manual is completed within 120 days of 2nd notification.

For any quality or quantity documentation that is missing or cannot be retrieved, the CPM will prepare a written Exception Memorandum to the project file documenting missing items. The memorandum to document missing information needs to include at a minimum:

- Project information included at a minimum the project name, key number, CPM designated to the project, date and author.
- Description of the bid items including bid item number and specification sections in the contract.
- Explanation regarding why missing documentation could not be obtained.
- Description of alternative methods used to accept the material.
- Explanation of how the quantity of the material was verified.
- Documentation of supporting correspondence with the City Engineer and/or the EOR.
- A description of the missing item(s)
- A description of proposed resolution

The QA/QC coordinator and Engineer of Record (EOR) will review the memorandum and recommend any additional corrective action, if necessary, for the project. Documentation of concurrence by the Transportation Senior Engineer (email or signature on the memorandum) is required as part of closeout documentation for any missing items.

VIII. PROJECT RECORD RETENTION

Project records are retained according to City retention policies. The Division Administrative Assistant is responsible for ensuring that all records required by state and federal law are retained for the timeframe required. Electronic files are stored on the City's computer network system. At a minimum, project records are retained in accordance with the retention schedule in OAR 166-150-0170, Public Works Records - Engineering. In general, this schedule calls for retention of records for a minimum of 10 years. Some records relating to survey and environmental documentation reports are permanent, and records relating to bridges are maintained until 2 years after the bridge is removed from service. In no case is retention less than six years, which is the minimum FHWA requirement for federally funded projects.

ATTACHMENT A

City of Gresham Project Delivery Guide

Attachment A - City of Gresham Transportation Division Project Delivery Guide

BACKGROUND

There are 4 parts to the project delivery process for Federally Funded Project administered by the City Transportation Division:

- I.) Project Initiation
- II.) Preliminary and Final Engineering
- III.) Construction Contract Award
- IV.) Construction Management and Construction Engineering

Part I – Project Initiation

Part I is Project Initiation and is typically completed by Transportation Planning staff with input from Transportation Engineering. For **Federally Funded** projects, Several of Part I tasks including development of project agreements and the project prospectus will identify specific project requirements necessary to complete a successful **Federally Funded** project. Chapter's 3 and 4 of ODOT's Local Agency Guidelines (LAG) Manual contain information about completing the project prospectus and a local agency agreement. CPM's need to be familiar with existing Project Initiation documents prior to moving into Preliminary and Final Engineering.

Part II – Preliminary Engineering

Part II of the process includes preliminary and final engineering. Preliminary and final engineering includes plan development, utility and environmental coordination, and right-of-way acquisition necessary to develop the project contract documents. There are special requirements and deliverables to file for **Federally Funded** projects in this part of the process. These requirements are outlined in the Preliminary Engineering Project Delivery Guide and the ODOT LAG Manual.

Part III – Construction Contract Award

Part III of the process is for ad, bid and award of a project construction contract. The City of Gresham *2010 Construction Manual* contains procedures for performing this portion of project delivery. For **Federally Funded** projects CPM's need to review the available ad, bid and award documentation contained in the ODOT LAG Manual. See LAG Manual Section C, Chapter 15.

Part IV – Construction Contract Award (Construction Engineering)

Part IV of the process is for managing project construction including contract administration and construction engineering. If the project is locally funded, procedures for this process are outlined in the City of Gresham *2010 Construction Manual*. If the project is **Federally Funded**, the latest version of the ODOT Construction Manual contains all applicable procedures.

INTRODUCTION

This project guide is intended to provide direction to City of Gresham Transportation Engineering City Project Managers (CPM's) for use in preliminary and final project engineering. In this guide it is assumed that Part I – Project Initiation has been completed and the CPM need only document certain information to the project file as outlined herein. The information and procedures provided, apply to projects in the City of Gresham Transportation Capital Improvement Program (CIP) and include procedures for locally funded as well as **Federally Funded** projects.

Appendix A of this guide contains a preliminary and final engineering checklist. CPM's shall use the checklist to keep track of the process. The checklist needs to be documented in the project file at the conclusion of the project.

Assume that all deliverables to the file are electronic format. Any deliverable requiring review and signature/approval from any party needs original wet signatures to be documented to the file in a paper format as well as a scanned electronic copies. Other specific deliverables that require paper copies are noted accordingly.

ACRONYMS:

AASHTO – American Association of State Highway Transportation Officials

CE – Construction Engineering

CIP – Capital Improvement Program

COG – City of Gresham

CPM – City Project Manager (Gresham)

DE – Development Engineering (City of Gresham)

EOR – Engineer of Record

FHWA – Federal Highway Administration

GIS – Geographic Information System

LAL – Regional Local Agency Liaison (ODOT)

LAG – Local Agency Guidelines (ODOT Manual)

MUTCD – Manual on Uniform Traffic Control Devices

ODOT – Oregon Department of Transportation

PE – Preliminary Engineering

PS&E – Plans, Specifications & Estimate

ROW – Right of Way

Appendices:

A – Preliminary and Final Engineering Project Delivery Checklist

B – 30%, 60%, 90% Project Design Acceptance Forms

1) Scoping & Budgeting

- A) Review Project Scope
- i) Review the project scope as described in the CIP.
 - ii) Review the project scope as described in the grant documents including Grant Application and Prospectus (**Federally Funded Projects**)
 - iii) Review the project Inter-governmental Agreement (IGA) (**Federally Funded Projects**)
 - iv) Perform a site visit. Take photos (see Section 2.B of this guide for additional info about keeping a project photo log). During the site visit, at a minimum, note the following:
 - (a) Any new or in process development
 - (b) Safety concerns and possible solutions
 - (c) Roadway conditions
 - (d) Any structures and the condition of structures
 - (e) Possible ROW needs or concerns
 - (f) Access locations and possible impacts
 - (g) Possible utility impacts
 - (h) Possible environmental impacts (wetlands, hazmat, archeological or historic)
 - (i) Existing ADA facilities and possible needs
 - (j) Pedestrian and bicycle activity
 - (k) Area and level of effort for survey
 - v) Review COG GIS (Gresham View II) to obtain and review any existing development agreement records.
 - (a) Use Gresham View II “basedata” layer
 - vi) Consult with COG DE for cash in lieu records
 - vii) Identify potential engineering studies that are necessary for the project

Approvals:

- None Required

Deliverables to File:

- Site Visit Notes
- Development Agreement Records
- Copy of the ODOT LOCAL AGENCY CERTIFICATION PROGRAM Supplemental Project Agreement (**Federally Funded Projects**)
- Copy of the Prospectus (**Federally Funded Projects**)

- B) Review Preliminary Budget & Develop Cost Estimate(s)
- i) Prepare a preliminary cost estimate. Include at a minimum:
 - (a) Construction costs
 - (a) Bid items
 - (b) Anticipated items,
 - (c) Contingencies
 - (b) Design and Construction Engineering (CE) costs
 - (a) Construction Admin
 - (b) Surveying
 - (c) Inspection

- (c) Environmental Engineering and Mitigation costs
- (d) ROW acquisition
- (e) Utility relocation and connection
- (f) Consultant service (Design and Construction)
- (g) Permitting
- (h) ODOT Rail Orders
- (i) COG Finance Contract administration (typically 14% of the total project cost)

Resources:

- ODOT's Unit Cost Database:
 - www.oregon.gov/ODOT/HWY/ESTIMATING
- Bid summaries for past COG projects.
- Consumer Price Index (CPI) for Construction

Approvals:

- None required if the cost estimate is consistent with the CIP
- Senior Engineer approval required if inconsistent with the CIP

Deliverables to File:

- Preliminary Cost Estimate and Budget Comparison Spreadsheet
- Budget Memorandum (only necessary if the estimate is inconsistent with the CIP. Discuss with the Senior Engineer and document the project direction in a memo).

C) Develop Preliminary Schedule

- i) Prepare a preliminary schedule using Microsoft Project. Consider timelines for:
 - (a) Public Involvement
 - (b) COG Land Use Process (if applicable)
 - (c) Environmental Clearance
 - (d) Utility Coordination and Clearance
 - (e) ROW Acquisitions and Certification
 - (f) Project Kickoff, 30%, 50%, 90% PS&E development and reviews
 - (g) Ad, bid and award timeline
 - (h) Construction contract timeline
- ii) Review the schedule with the Senior Engineer

Resources:

- Microsoft Project Software

Approval:

- Senior Engineer

Deliverables to File:

- Copy of the preliminary schedule including signature or initials (date) of the Senior Engineer documenting the date of review.

2) Data Collection

A) Pre-Design Survey

- i) Call for 1-call locate prior to having survey collect data.
- ii) Complete a field survey request using the following link:
<http://citynet/departments/environmental-services/fieldSurveyForm.aspx?ekfrm=2834>
 - (a) Provide survey limits (typically edge of ROW plus at least 10 to 20 feet for adequate surface modeling.
 - (b) Collect invert elevations for storm and sewer infrastructure if applicable to the project.
- iii) Work with DE Survey to identify and verify property corners and any other pertinent ROW research.
 - (a) Note any easements (type, size and location).

Resources:

- COG Intranet Survey Request Form
- Multnomah County Survey and Assessor Image Locator (SAIL)
<https://multco.us/surveyor/survey-and-assessor-image-locator-sail>

Approvals:

- None

Deliverables to File:

- Copy of the Field Survey Request
- Copy of electronic survey file and any supporting data. Consult with Transportation Engineering Tech regarding appropriate file structure for use of survey in AutoCAD C3D.
- Copies of any easement or other ROW records.

B) Photo Log

- i) Compile a photo log of existing conditions at the project site. Document the condition of existing infrastructure, particularly infrastructure that may not be impacted by project construction such as bridges, retaining walls, buildings etc. The photos may be useful in the event damage occurs to adjacent properties as a result of construction.

Resources:

- Camera

Approvals:

- None

Deliverables to File:

- Electronic Photo Log

C) Mapping

- i) Work with COG GIS to locate and obtain current and past aerial photos of the project area.
- ii) Review the COG GIS database to identify if you project is in any special overlay zones. Overlay zones may trigger special permit requirements or other requirements for the project.

Resources:

- COG GIS Staff
- GOG GIS Database

Approvals:

- None

Deliverables to File:

- Project Ortho Photos. Consult with Transportation Engineering Tech regarding appropriate file structure for use of survey in AutoCAD C3D.
- Project overlay maps (if applicable).

D) Utilities

- Determine the above ground and below ground utilities that operate within the project area. Consult the City of Gresham Construction Manual for the most recent list of utility companies that operation within the City of Gresham.
- Discuss scope of project with the Senior Engineer. Senior Engineer to discuss with Other COG utilities to identify project conflicts with other COG projects. Document discussion and obtain meeting notes from Senior Engineer.
- Develop a utility contact list for the project.

Resources:

- GOG GIS (Gresham View II) for COG utilities.
- Survey
- Utility Pole ID tags
- COG Construction Manual

Approval:

- None

Deliverables to File:

- Utility Contact List
- Letter or email from Senior Engineer confirming that the project was discussed with other COG utilities.

E) As-Builts

- Obtain as-builts for water, sewer, gas, electrical, communication and any other utility in the project limits.

Resources:

- COG GIS (Gresham View II)
- TriMet Asbuilts – Contact TriMet Maintenance of Way staff
- NW Natural E-Map - <https://www.nwnatural.com/business/services/emap/>

Approval:

- None

Deliverables to File:

- As Built Drawings

F) Traffic Data

- i) Identify the scope of potential traffic impacts for the project. Determine study intersections or corridors and define the objective of a traffic analysis. Review the proposed scope with the Senior Engineer.
- ii) Review the City public works standards for traffic operations thresholds.
- iii) Obtain crash data for study intersections or roadways.
- iv) Obtain traffic count data for study intersections or roadways. Verify count dates and cross check with holiday's school closures or other special events that might impact the traffic conditions in the project area.
- v) Prepare a traffic analysis scope of work memorandum.

Resources:

- ODOT Crash Database
- COG Traffic Count Database
- COG Public Works Standards

Approvals:

- Senior Engineer

Deliverable to File:

- Traffic Analysis scope of work memorandum with including a date and Senior Engineer initials/date.

G) Permit Requirements

- i) Consult with COG Natural Resources Program Manager about possible natural resource permits may be needed for the project. Try to understand potential State and/or Federal permitting requirements. Ask about Endangered Species Act, Clean Water Act, Migratory Bird Act and potential DEQ, or Army Corps permitting.
- ii) Consult with COG stormwater Manager about possible site stormwater management permits that may be necessary.
- iii) Consult with COG DE Manager about potential development engineering permits that may be needed.
- iv) Consult with COG Urban Development and Planning Manager about potential land use permits that may be needed.
- v) Examples of typical project permits include:
 - (a) NPDES – Long term water quality permit
 - (b) DEQ 1200-C – Construction water quality permit
 - (c) COG Land Use – Likely needed for projects that are built out of the ROW or multi-use paths.
 - (d) COG DE – Street Tree Removal and Grading

H) ODOT Rail crossing Order – Needed for projects than alter transportation infrastructure near rail crossings, including TriMet crossings.

Resources:

- None

Approvals:

- None

Deliverables to the File:

- Document correspondence with various parties regarding potential permit/order requirements.

3) Preliminary Design

For **Federally Funded** projects confirm notice to proceed from the LAL prior to moving forward with Preliminary Design activities.

A) Project Kick-Off Meeting

- i) Organize a project kick-off meeting. Level of effort for the meeting depends on the project size, financial value, and impacts to other parties such as other COG DES Divisions, Utilities and the public. For small projects (approx. \$300,000 or less) at a minimum, CPM should meet with the Senior Engineer. For medium and large projects (approx. \$500,000 and more) the level of effort is increased to include at a minimum the following items:
- ii) Prepare a meeting agenda. At a minimum, discuss the following:
 - (a) Project Scope
 - (b) Schedule
 - (c) Project Team
 - (d) Known necessary environmental permits
 - (e) Utility coordination needs
- iii) Prepare minutes (draft/final)

Resources:

- None

Approvals:

- None

Deliverables to File:

- Notice to Proceed from LAL (**Federally Funded Projects**)
- Meeting Agenda
- Attendees List
- Meeting Minutes

B) Public Involvement Plan

- i) Prepare a public involvement plan documenting the key project milestones that you will engage the public about the project. At a minimum the plan should include the following:
 - (a) A public meeting at or around 30% plan development
 - (b) A public meeting at 90% plan development
 - (c) Names and contacts for key public stakeholder groups such as:
 - (1) Neighborhood Associations
 - (2) Business Associations
 - (3) Chamber of Commerce
 - (4) Downtown Development Associations
 - (5) Transportation Advisory Boards
 - (d) Any additional public outreach required as part of a land use process.
 - (e) Any additional public outreach required as part of a project award requirement, funding source requirement, or an IGA (**Federally Funded Projects**)

- ii) Review the public involvement plan with the Senior Engineer.
- iii) Consult with COG Communications for additional information and assistance with the Public Involvement Plan. If necessary, complete a communications request form using the following link:
<http://citynet/departments/communications/forms.aspx?ekfrm=3386>

Resources:

- COG Communications Division
- Communications Request Form

Approvals:

- Senior Engineer

Deliverables to File:

- Public Involvement Plan Memorandum initialed/dated by the Senior Engineer.

C) Utility Coordination

- i) Begin coordination with utilities at least 6 months prior to opening bids. Review all utilities within your project corridor. Note that utility conflicts may impact ROW needs.
- ii) Review ODOT's utility relocation reimbursement policy in the LAG Manual. See LAG Manual Section C, Chapter 13. **(Federally Funded Projects)**
- iii) Review section B of the PS&E Checklist for additional project specific utility coordination that might be necessary. See LAG Manual Section C, Chapter 11 and Chapter 11, Appendix 1 **(Federally Funded Projects)**
- iv) Identify a list of potentially impacted utilities.
- v) Prepare draft utility notification consult with the Senior Engineer for the most currently version being use for projects This letter will be sent out at the conclusion of 30% Design.
- vi) Prepare draft Conflict Letter. See ODOT LAG Manual Section C, Chapter 13 **(Federally Funded Projects)**
- vii) Prepare draft Time Requirement Letters. See ODOT LAG Manual Section C, Chapter 13 **(Federally Funded Projects)**
- viii) Prepare draft Utility Certification Form. See ODOT LAG Manual Section C, Chapter 13 **(Federally Funded Projects)**
- ix) Review draft letters with the Senior Engineer.

Resources:

- Example letters can be found at the ODOT Utility Forms Library **(Federally Funded Projects)**
http://www.oregon.gov/ODOT/HWY/ROW/pages/utility_form_library.aspx

Approvals:

- None

Deliverables to File:

- Utility Notification Letter (Draft)
- Conflict Letter (Draft) **(Federally Funded Projects)**
- Time Requirement Letter (Draft) **(Federally Funded Projects)**
- Utility Certification Form (Draft) **(Federally Funded Projects)**

D) Design Resources

- i) Identify design resources and standards for the project. Consult with the COG Public Works design standards. Other pertinent resources for design are listed below.
- ii) Review COG Public Works Standards and IGA and/or supplemental grant documents to determine what design standards apply (**Federally Funded Projects**)
- iii) Document what design standards will be used in a memorandum on the project and maintain a collection of design standards in the project file.

Resources:

- City of Gresham Public Works Standards
- AASHTO Roadside Design Guide MUTCD
- AASHTO A Policy on Geometric Design of Highways and Streets Design “Green Book”
- AASHTO Guide for the Development of Bicycle Facilities

Approvals:

- None

Deliverables to File:

- Design Standards Memo
- Applicable design standards worksheets.

E) 30% Design - Design Alternatives & Selection

- i) Work to develop design alternatives for the project and discuss and document with the project team.
- ii) Identify potential engineering studies that are necessary for the project.
 - (a) Prepare draft scope of work for any needed engineering studies.
 - (b) If consultant services are necessary, consult the COG CAO Personal Services Manual for information on contract value thresholds and how to obtain a consultant.
- iii) Prepare 30% Design Plans for review.
- iv) Prepare 30% Cost Estimate for review.
- v) Discuss the 30% Design Plans and Estimate with the Senior Engineer and Division Manager for approval. Include discussion of potential design exceptions. Document review comments and any design discussion in meeting minutes or a technical memo.
- vi) Prepare a first draft Preliminary Engineering (PE) Report documenting at a minimum:
 - (a) Project Scope, Budget, Construction Limits
 - (b) Project History
 - (c) Preliminary Design and Alternatives
 - (d) Identify any potential design exceptions that will be needed.

Resources:

- None

Approvals:

- Senior Engineer
- Division Manager

Deliverables to File:

- Copy of the 30% Design Plans and Cost Estimate
- Copy of 30% Design Acceptance Document (Appendix C) approval letter with Senior Engineer and Division Manager Signatures. Include summary meeting minutes or tech memo documenting comments received as part of the 30% review (See Appendix C for a copy of the review form).
- Draft SOW's for applicable engineering studies
- Copy of draft PE Report

F) Environmental Studies/Clearance – For **Federally Funded** projects, the environmental process will be overseen by ODOT. Project environmental task work will be managed by the COG. PM's should consult LAG Manual Section B, Chapter 5 for more information about the process. For locally funded project PM's should consult with the Senior Engineer and COG Natural Resources Manager to identify specific environmental permitting necessary for the project.

- i) Review the requirements of the National Environment Policy Act (NEPA).
- ii) Work with COG Natural Resources Manager to identify specific environmental permitting necessary for the project. Summarize the conversation in a technical memorandum for environmental permitting.
- iii) Work with ODOT and the consultant team to determine the scope of work for consultant services to obtain Environmental Clearance for the project. **(Federally Funded Projects)**
- iv) Review Section A of the PS&E Checklist for details regarding project environmental approvals. See LAG Manual Section C, Chapter 11 and Chapter 11, Appendix 1 **(Federally Funded Projects)**

Resources

- ODOT LAG Manual Section B, Chapter 5 **(Federally Funded Projects)**

Approvals

- ODOT Environmental Certification

Deliverables to File

- Work order contracts and any amendments for consultant environmental services.
- Draft and final Scope of Work documentation from consultants
- Environmental Closeout documents from ODOT or the Environmental Consultants. **(Federally Funded Projects)**
- Technical memo for environmental permitting.

4) Right-of-Way/Clearance

For **Federally Funded** projects, the ROW process will be overseen by ODOT. Project right of way task work will be managed by the COG. PM's should consult Section B, Chapter 6 and Section C, Chapter 11, Appendix 1 of the LAG Manual and the ODOT Right-of-Way Manual for information regarding what is needed for ROW certification. For locally funded projects PM's should consult with the Senior Engineer and City Attorney's Office (CAO).

A) Consultant Selection

- i) If using a consultant for ROW acquisition for locally funded projects consult with the Senior Engineer regarding City rules and process for consultant selection. As general guidance the following thresholds apply to A&E constant contracts with the COG:
 - (a) Direct appointment – Administrative Award: \$15,000 or less
 - (b) Competitive Quotes & Administrative Award: \$15,001 to \$50,000
 - (c) Formal, advertised RFP and Council approval if over \$50,000; (Council approval is not necessary if the project is budgeted in the current CIP that was approved by Council.)
- ii) Work with the LAL to coordinate consultant selection for **Federally Funded** Projects

Resources:

- City documents library on the COG intranet.

Approvals:

- Depending on the contract amount (see above).

Deliverables to File:

- Draft and final Consultant scope of work.
- Draft and final Consultant contracts.

B) Right-of-Entry Agreement

- i) Consult with the Senior Engineer and COG CAO for latest forms for obtaining a “Right to Entry” for a property acquisition.

Resources:

- None

Approvals:

- None

Deliverables to File:

- Draft and final “Right to Entry” documents.

C) Descriptions

- i) Request property deeds from a title company for each property you need ROW.
- ii) Work with DE –Survey to prepare legal descriptions and figures for each ROW acquisition.

Resources:

- None

Approvals:

- None

Deliverable to File:

- Copies of the legal descriptions and maps.

D) Negotiations

- i) Work with the Senior Engineer, Consultant and COG CAO to discuss a negotiation strategy and contingencies.
- ii) Obtain and review any and all draft offer letter and other documentation. Review the draft documentation with the senior engineer and Division Manager.
- iii) Discuss all ongoing negotiations with the Senior Engineer.
- iv) Work with the City Manager's office for signatures on any ROW dedications.

Resources:

- COG CAO Office

Approvals:

- Senior Engineer and Division Manager Approval required prior to making offers. The Division Manager signature is required on any offer letters or acceptance sheets.
- City Manager approval and signature required on right-of-way dedication.

Deliverables to File:

- Dated draft copies of offer letters with Senior Engineer and Division Manager initials or signature.
- Draft and final copies of right-of-way dedication.

E) Recording

- i) Work with COG Finance & Management Services (FMS) to record the ROW dedication immediately after the dedication is signed by all parties and a Purchase Order (PO) has been approved.

References:

- None

Approvals:

- None

Deliverables to File:

- Draft and final copies of all dedication documentation and PO's

F) Right-of-Way Certification (**Federally Funded Projects**)

- i) Work with the LAL to obtain the most current version of the ROW Certification Form
- ii) Prepare and submit draft and prepare, sign and submit the final ROW certification form to the LAL.

Resources:

- ODOT LAG Manual Section B, Chapter 6 (**Federally Funded Projects**)
- ODOT ROW Manual for Local Agency's (**Federally Funded Projects**)

Approvals:

- ODOT ROW Certification

Deliverables to File:

- Final signed original ROW Certification Form (**Federally Funded Projects**)

5) Final Design

A) 60% Design Review and Approval

- i) Obtain and review engineering studies that are necessary for the project. Review the reports to identify information that impacts the design of the project.
- ii) Prepare 60% Design Plans for review.
- iii) Prepare 60% Specifications for review. Coordinate with the Senior Engineer to verify you are using the most current version of the Transportation Division Bid Booklet Template.
- iv) Prepare 60% Cost Estimate for review.
- v) Prepare a PS&E comment log. Include the name/source of the comment, and a record of how the comment was incorporated or omitted from the design.
- vi) Prepare Draft Design Exception Documents. See Design exception procedure and form in Appendix B.
- vii) Discuss the 60% Design Plans and Estimate with the Senior Engineer for approval.
- viii) Update the PE Report

Resources:

- None

Approvals:

- Senior Engineer

Deliverables to File:

- Copies of applicable Engineering Reports (draft or final)
- Copy of the 60% PS&E
- Copy of 60% Review approval letter with Senior Engineer initials or signature and date. (See Appendix D for a copy of the review form).
- Copy of the PS&E comment log
- Draft copies of design exceptions
- Copy of the updated PE Report

B) Utility Coordination

- i) Prepare and send final copies of the following documents:
 - (a) Utility Notification Letter
 - (b) Conflict Letter (**Federally Funded Projects**)
 - (c) Time Requirement Letter (**Federally Funded Projects**)
- ii) Prepare draft Utility Certification Form and draft Special Provisions Section 00150. Coordinate with LAL for the most current version of the certification form. See LAG Manual Chapter 13 (**Federally Funded Projects**)
- iii) Prepare draft Section 00150 special provisions for certification. (**Federally Funded Projects**)
- iv) Route plans to COG utilities for review. Coordinate this effort with the COG Division Managers if needed.

Resources:

- None

Approvals:

- None

Deliverables to File:

- Final copies of the utility notification letters, conflict letters, and time requirement letters
Final signed copy of the Utility Certification Form

C) 90% Design Review and Approval

- i) Prepare 90% Design Plans for review
- ii) Prepare 90% Specifications for review
- iii) Prepare 90% Cost Estimate for review
- iv) Update the comment log
- v) Prepare final design exception documents
- vi) Discuss the 90% Design Plans and Estimate with the Senior Engineer for approval (See Appendix E for a copy of the review form).
- vii) Finalize the PE Report
- viii) Review the PS&E Checklist and prepare draft PS&E Checklist. Coordinate with LAL for most current version of the form. See LAG Manual Section C Chapter 11 and Chapter 11, Appendix 1 (**Federally Funded Projects**)

Resources:

- None

Approvals:

- Senior Engineer

Deliverables to File:

- Final copies of applicable Engineering Reports
- Copy of the 90% PS&E
- Copy of 90% Review approval letter with Senior Engineer signature or initials
- Copy of the PS&E comment log
- Final copies of design exceptions
- Copy of the final PE Report
- Draft PS&E Checklist. (**Federally Funded Projects**)

D) Final PS&E

- i) Prepare Final Design Plans with EOR Stamp.
- ii) Prepare Final Specifications with EOR Stamp.
- iii) Prepare Cost Estimate.
- iv) Update the comment log
- v) Prepare Final Utility Certification document and submit it to the LAL (**Federally Funded Projects**)
- vi) Prepare Final PS&E Checklist (LAG Manual Section C Chapter 11 and Chapter 11, Appendix 1) and submit it to the LAL (**Federally Funded Projects**)

Resources:

- None

Approvals:

- Senior Engineer, signature on LAG Manual Section C Chapter 11, Appendix 1
- ODOT LAL

Deliverables to File:

- Final Design PS&E
- Final Certification Document (**Federally Funded Projects**)
- Final PS&E Checklist (**Federally Funded Projects**)
- Approval to Ad Notice from the LAL (**Federally Funded Projects**) – **Needed Prior to Moving Forward with Ad, Bid and Award**

Appendix A

Project Delivery Checklist

PRELIMINARY AND FINAL ENGINEERING PROJECT DELIVERY CHECKLIST

PROJECT NAME: _____

CIP#: _____ ODOT KEY: _____

TASK NO.	TASK	COMPLETE (YES/NO)	FILED (YES/NO)	N/A
SCOPING AND BUDGETING				
1A	Review Project Scope			
1B	Review Budget and Prepare Preliminary Cost Estimate			
1C	Develop Preliminary Schedule			
DATA COLLECTION				
2A	Complete Pre Design Survey			
2B	Compile Photo Log			
2C	Obtain Project Mapping			
2D	Obtain Utility Information			
2E	Obtain Project As Builts			
2F	Obtain Project Traffic Data			
2G	Identify Permit Requirements			
PRELIMINARY DESIGN				
3A	Project Kick-Off Meeting			
3B	Public Involvement Plan			
3C	Utility Coordination			
3D	Identify Design Resources			
3E	30% Design – Design Alternatives Selection			
3F	Environmental Clearance			
RIGHT OF WAY CLEARANCE				
4A	Consultant Selection			
4B	Right of Entry Agreement			
4C	Prepare Legal Descriptions			
4D	Negotiations			
4E	Recording			
4F	Right of Way Certification			
FINAL DESIGN				
5A	60% Design Review			
5B	Utility Coordination			
5C	90% Design Review			
5D	Final PS&E			

Appendix B

30%, 60%, 90% Project Acceptance Forms

30% PROJECT DESIGN ACCEPTANCE

PROJECT NAME:	
ODOT KEY NO. (IF APPLICABLE)	
PROJECT MANAGER:	
DATE OF REVIEW:	

This design established the boundaries of the project's footprint, substantial features, geometry, and right-of-way requirements.

The right-of-way boundary of the design is adequate to accommodate any reasonable potential project needs resulting from minor design changes, construction details, construction staging, traffic control, and water quality and environmental mitigation requirements.

With this design acceptance, the construction elements can be detailed and any right-of-way acquisition and permitting process can commence with the assurance that these activities will not have to be reworked later and at great cost and delay.

By my signature I certify design acceptance for the subject project:

Project Manager Date

Senior Engineer Date

Transportation Division Manager Date

60% PROJECT DESIGN ACCEPTANCE

PROJECT NAME:	
ODOT KEY (IF APPLICABLE):	
PROJECT MANAGER:	
DATE OF REVIEW:	

This design established the details of the project's footprint, substantial features, geometry, and right-of-way requirements.

With this design acceptance, the construction elements can be detailed and any right-of-way acquisition and permitting process can commence with the assurance that these activities will not have to be reworked later and at great cost and delay.

By my signature I certify design acceptance for the subject project:

Project Manager

Date

Senior Engineer

Date

90% PROJECT DESIGN ACCEPTANCE

PROJECT MANAGER:

DATE OF REVIEW:

PROJECT:

Current Cost Estimate: _____

Right of Way Complete: Yes No

If no, what ROW is remaining?

Permits in-hand: Yes No

If no, what Permits are remaining?

Bid Opening Date: _____

By my signature I certify 90% design acceptance for the subject project:

Project Manager

Date

Senior Engineer

Date

ATTACHMENT B
City of Gresham Design Exception Process and
Forms

ATTACHMENT B – TRANSPORTATION ENGINEERING DESIGN EXCEPTION APPROVAL PROCESS

For City of Gresham Certified Local Agency Transportation Engineering projects, deviations from the applicable design standards will require design exception approval from the Transportation Senior Engineer.

Design exception requests are submitted by the Project Engineer or Project Manager to the Senior Engineer. The Senior Engineer shall discuss major design exceptions with the Division Manager. For design exceptions that potentially effect other City utility infrastructure (water, sewer, storm water etc.) the Project Engineer shall consult with the respective Division Managers prior to submitting the design exception request. Design exceptions that reduce the roadway widths need to be reviewed by City of Gresham Fire Department prior to submitting to the Transportation Senior Engineer.

Exception Requests to ADA Standards

Project Managers should consult Attachment B of this document for any design exception request related to ADA standards. Design exceptions for ADA facilities are addressed in Attachment C of the City's QA/QC Guide.

Information to be included in the design exception request shall include at a minimum:

- A detailed description of the exception request.
- An engineering analysis including alternatives considered.
- A discussion regarding the exceptions compatibility with adjacent section/features.
- Cost/benefit and/or Right-of-Way analysis.
- Other reasoning for the request.

For minor projects, document the design exception with the attached form. For major projects, use the attached form and include supplemental engineering analysis. All design exceptions require a seal from a PE currently licensed to practice in Oregon. Design exception approvals should be retained indefinitely.

Transportation Project Design Exception Request

PROJECT NAME:			
ODOT KEY NO.:		ODOT REGION:	
CITY CIP NO.:			
ROADWAY NAME:			

Description of the Project:

Description of Exception: (Describe the design exception including the specific standard and will not be met)

What is the reason for not attaining the standard?

Reason for Request:

Signatures

Prepared By: Date:

Print Name:	<input type="text"/>	Phone:	<input type="text"/>		
Company Name:	<input type="text"/>				
Company Address:	<input type="text"/>				
City:	<input type="text"/>	ST:	<input type="text"/>	Zip:	<input type="text"/>
Email Address:	<input type="text"/>				

Concurred By: Date:
 (City of Gresham Transportation Senior Engineer) (signature)

(Print Name)

ENGINEER OF RECORD PROFESSIONAL ENGINEER STAMP

ATTACHMENT C
City of Gresham Certified Local Agency ADA
Compliance Plan

ATTACHMENT C – City of Gresham Certified Local Agency Project ADA Compliance Procedure

The following American with Disabilities Act (ADA) Certified Local Agency Compliance Procedure documents City of Gresham design criteria, and design exception process for all projects delivered by City of Gresham as Certified Local Agency Projects. For any projects with work that occurs on or along state highways, the project designer shall use ODOT's current ADA standards, processes, and forms. For more information contact the City's ODOT Local Agency Liaison.

Background - City of Gresham ADA Transition Plan Inventory

In 2016, the City of Gresham completed an inventory of existing curb ramps within the City Limits. Each intersection inventoried included multiple street corners and each street corner was evaluated. Data was collected to determine whether a ramp exists and if so, whether it has truncated domes or no truncated domes. These conditions were then categorized as substantially compliant, partially compliant or deficient, as follows:

Substantially Compliant:

Has PROWAG compliant truncated domes and substantially meets ADA guidelines (Ramp should be usable by most, if not all, people with disabilities).

Partially Compliant:

Has curb ramps without truncated domes and therefore does not meet one or more ADA guidelines.

Deficient:

Lacks curb ramps and therefore is not ADA accessible.

Curb ramps were categorized by Area, per 28 CFR 35.150(d), based on their proximity to government services, transportation facilities, and other places of public accommodation. Area 1 is the highest priority area to address curb ramp issues, Area 2 is the second highest priority, and Area 3 is the lowest priority. Areas are established as follows:

Area 1: Government and public service facilities that are open to the public

- A. City of Gresham facilities
- B. Multnomah County facilities
- C. State of Oregon facilities
- D. Federal facilities
- E. Metro facilities
- F. TriMet bus stops and max stops
- G. Schools: Public and private, including college

Area 2: Places of public accommodation and employment

- A. Stores, rental establishments, service establishments
- B. Hotels/motels

Area 3: Facilities that do not fall into the above priorities.

Ramps are considered appurtenant to the facilities above based on the following geographic limits:

- 300' buffer for points/buildings;
- 100' buffer for linear facilities

Table 1 provides a summary of the curb ramp inventory including the percentage of substantially, partially compliant or deficient ramps by area.

Table 1 – City of Gresham ADA Ramp Condition Inventory

	Area 1	Area 2	Area 3	Total
Substantially Compliant Ramps	780 (32%)	149 (19%)	396 (10%)	1,325 (18%)
Partially Compliant Ramps	1,175 (48%)	427 (56%)	1,697 (41%)	3,299 (45%)
Deficient Ramps/Ramp Areas	487 (20%)	190 (25%)	2,024 (49%)	2,701 (37%)
Total	2,442 (100%)	766 (100%)	4,117 (100%)	7,325 (100%)

For Transportation Engineering Capital Projects, the above inventory provides a base understanding of existing ADA facility conditions for designers. During initial project scoping, the project Engineer and/or designer will perform detailed inspection using the City’s ADA Ramp Inspection Forms. Copies of the City’s forms are provided in Appendix A of this procedure. Summary of this inspection is documented in the project design report.

Certified Local Agency Project - ADA Design

City of Gresham Certified Local Agency Projects shall follow ODOT design criteria for design of ADA Curb Ramps. The applicable design criteria are based on the ODOT Traffic-Roadway Section Technical Bulletin RD-16-01(B) (effective 12/22/2016) as follows:

- **Number of Ramps** - A separate curb ramp shall be provided for each pedestrian access route crossing (typically two curb ramps per intersection corner) within the scope of the project unless such crossing is officially and properly closed.
 - A design exception is required if a curb ramp cannot connect each pedestrian street crossing.
 - Crosswalk closure signs are installed at all officially closed crosswalks.
- **Ramp Bottom** - Bottom of curb ramps meet the applicable criteria below:
 - If the landing area is located in the roadway and not part of the curb ramp, 4' x 4' clear space in roadway is outside the parallel vehicular path of travel and within the crosswalk; or

- 4' x 4' clear space is part of curb ramp (parallel style ramp).
- **Ramp Running Slope** - Ramp running slope meet the applicable criteria below:
 - 7.5% maximum ramp running slope on all ramp runs; AND
 - Maximum length for any ramp-run does not exceed 15'. (Note: for parallel style ramps that occur within a curb radius, the 15' measurement is measured from the back of walk along the smallest radius line); OR
 - A design exception is required if 7.5% ramp run cannot be achieved in 15' run length.
 - Maximum of 5% running slope on blended transitions.
- **Cross Slope** - Cross slope meets the applicable criteria below:
 - 1.5% maximum cross slope on all ramp-runs.
 - At an Island across an intersection approach without yield or stop control, maximum cross slope is 5.0%
 - At an island at a midblock location, maximum cross slope does not exceed adjacent road profile grade.
- **Gutter Flow Slope** - Gutter flow slope meets the applicable criteria below:
 - Maximum gutter flow slope is 2.0% at bottom of curb ramps with yield or stop control.
 - At intersection approaches without yield or stop control, the maximum gutter flow is 5%.
 - At midblock crossings, the gutter flow shall be permitted to equal the street or highway grade.
- **Counter Slope** – Maximum counter slope meets applicable criteria below:
 - If gutter pan, maximum counter slope is 4.0%
 - If no gutter pan, maximum counter slope is 4.0%
- **Clear Width** – Minimum clear width (within the detail pay limits) meets the applicable criteria below:
 - Minimum clear width through the pedestrian access route (flares and curbs are excluded from pedestrian access route) shall be equal to or greater than 48”.
 - Minimum clear width through a cut-through island shall be equal to or greater than 60”.
- **Ramp Flares and Returns** – Ramp Flares or return curbs meet the applicable criteria below:
 - Flares are provided with a maximum slope of 10% relative to gutter flow slope; OR
 - Side ramp discourages pedestrian cross-travel with landscaping or an obstruction (If no flares, curb return is used).
- **Drainage Structures** – No drainage grates within the pedestrian access route.
- **Ramp Turning Space** – Ramp turning space meets the applicable criteria below:
 - 1.5% in both directions of travel; AND
 - 4' x 4' if no obstruction at back of walk; OR
 - 4' x 5' if obstruction at back-of-walk (5' in crosswalk direction).
- **Push Buttons** – Pedestrian push buttons, if present, meets the criteria below:
 - Pushbutton located within 10” reach from clear space.
 - Pushbutton is located vertically 36” – 48” above the clear space.
- **Detectable Warning** – Detectable warning surface consisting of truncated domes, extending 2' along the full width of curb ramp.

- Detectable warning surface are not required at cut-through islands if less than 6' in length in the direction of pedestrian travel or distance between detectable warnings would be less than 2'.
- Curb ramps are within the width of the pedestrian street crossing (crosswalk) served.
- Transition on and off the curb are flush and free of abrupt level changes (no lip or other vertical surface discontinuity)
- Between curb ramps, curb ramp exposure height is at least 3" (12" minimum length of curb).
- Curb ramp is not blocked by legally parked cars.

The standard design criteria identified above is further supplemented by ODOT Standard Drawings – Roadway 700 Series and Standard Details – Roadway 1700 Series. Design plans shall include detailed ramp grading plans for all ramp location that demonstrate conformance with the above described criteria and ODOT standards.

For Certified Local Agency Project, at the time of design, existing ADA ramp locations within the project area as defined by the project limits described in the Statewide Transportation Improvement (STIP) are reviewed for compliance using the ADA Ramp Inspection Forms in Appendix A. The applicable form for use depends on the style of ramp for either parallel or perpendicular ramps. Detailed designs of new and retrofit curb ramps are completed and must demonstrate compliance with the above described criteria. If compliance to the criteria cannot be achieved, then any deviation from the criterion shall be documented through a design exception as described below.

A Temporary Pedestrian Accessible Route (TPAR) is a required component of every Traffic Control Plan. The TPAR details how pedestrians will be directed through or around a work zone. The level of detail required for the TPAR depends on the complexity of the project and the volume of pedestrian traffic.

For Certified Local Agency Projects in Gresham, the designers TPARP shall document the following efforts to the project file:

- Documentation to the project file regarding outreach to the disabled community (memorandum, call logs, email, etc.).
- Verification of available alternate routes.
- Development of detailed TPAR design in contract plans.
- Documentation of general project outreach to the public specifically regarding TPAR considerations for the project.
- Inclusion of TPAR specifications or special provisions.

Designers should consult ODOT Technical Services Directive TSB17-01(D) (effective 10/1/2017) for additional guidance and resources when developing TPAR for projects.

Exception Requests to ADA Standards

Design exceptions to the above listed criteria shall be documented using the City's ADA design exception form. A copy of the City's ADA design exception form is provided in Appendix B of this procedure. ADA Design exceptions for Certified Local Agency Projects must be sealed by a licensed engineer and reviewed and concurred by the City of Gresham Transportation Senior Engineer. Any ADA design exception will be submitted to ODOT through the Local Agency

Liaison (LAL) as part of final PS&E project submittals. Closures of crosswalks shall be documented using the design exception process described above.

Certified Local Agency Project - ADA Construction Inspection

Certified Local Agency Projects that construct ADA ramps will follow ODOT procedures for inspection before, during and after construction. The general process as outlined in section 00759 of the Oregon Standard Specifications is as follows (with some procedural additions):

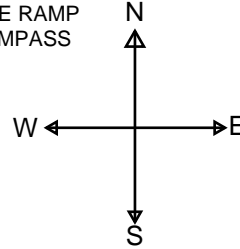
- The Project Engineer and/or designer will discuss the procedure for ADA ramp construction and inspection with the Contractor during the preconstruction meeting and request the following pre-construction information:
 - Working drawings for each ramps location demonstrating that the Contractor has reviewed the plans and details, independently verified ramps locations, existing dimensions and grades for compliance with the plan details.
 - Sidewalk ramp plan documenting a detailed schedule for all phases of sidewalk ramp work including the following:
 - Surface Preparation
 - Compliance with plan details or standard drawings
 - Waste handling and disposal
 - Other pertinent information
- Before beginning any sidewalk ramp work, the Project Engineer/designer, inspector, Contractor's supervisory personnel and quality control manager and any ramp subcontractor's will meet in the field for a preplacement conference. The purpose of the conference is to review ramp locations in the field and discuss any questions regarding ramps placement and construction.
- For all projects, the City's inspector will be onsite during all aspects of ramp demolition and installation. For Certified Local Agency projects, upon completion of ramp construction, the inspector shall document compliance with design plans using the City's ADA Ramp Inspection Forms provided in Appendix A. For projects that include ADA ramp work on or along the state highway (ODOT facilities) the current versions of the following standard ODOT ADA ramp inspection forms shall be used to document compliance for the corresponding ramp type:
 - Blended Transition – Form #734-5020A
 - Combination Ramp – Form #734-5020B
 - Cut Through Island Ramps – Form #734-5020C
 - End-of-Walk Cur Ramps – Form #734-5020D
 - Parallel Curb Ramps – Form #734-5020E
 - Perpendicular Curb Ramps – Form #734-5020F
 - Unique Curb Ramps – Form #734-5020G
 - Universal Curb Ramp - Form #734-5020

Forms are searchable on ODOT's website.

Appendix A – City of Gresham
ADA Ramp Inspection Forms

FIELD NOTES:

LOCATE RAMP ON COMPASS



Cross Street Name: _____

N/S ST: _____

E/W ST: _____

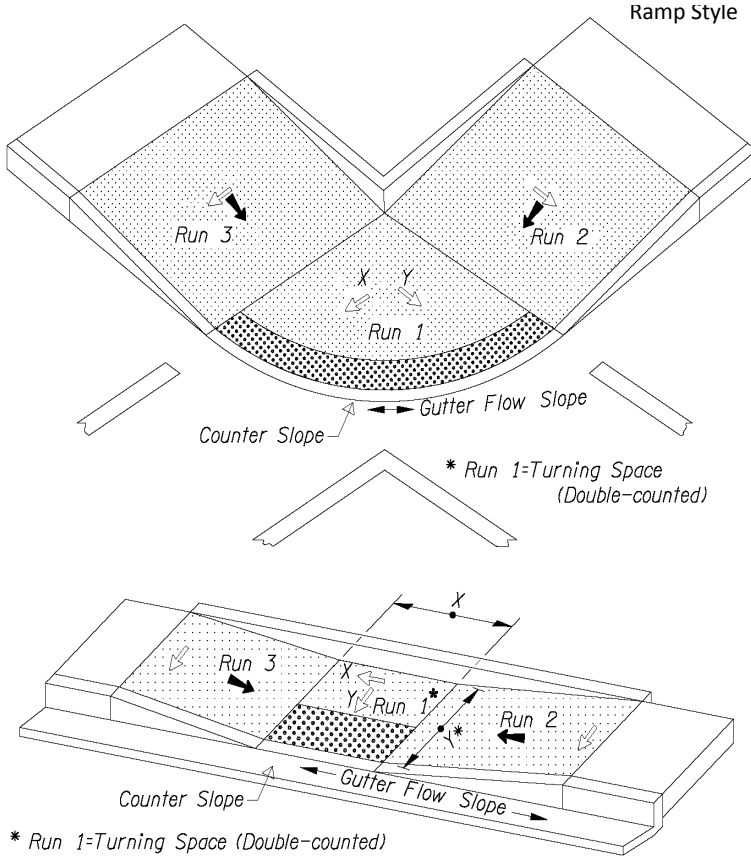
RAMP ID: _____

PHOTO TIME: _____

PHOTO NAME: _____

Calibration Date

(mm/dd/yy)



PARALLEL RAMP (PL)

- Pedestrian Access Route (to measure Clear Width)
- Detectable Warning Surface
- Cross Slope (2.0% max.)
- Running Slope (8.3% max.)
- Counter Slope (5.0% max.)
- Turning Space (X & Y) (2.0% max. / 4' x 4' min.)*
* If constrained at back of walk, min. Y length is 5'.
- Gutter Flow Slope (as directed)

RAMP RUN 1	Pass	Fail
Running Slope 1 _____ ≤ 2.0% <input type="radio"/> > 2.0% <input type="radio"/>		
Cross Slope 1 _____ ≤ 2.0% <input type="radio"/> > 2.0% <input type="radio"/>		
Detectable Warning _____ (TD, X) <input type="radio"/> (N) <input type="radio"/>		
Lip Height _____ ≤ 1/4" <input type="radio"/> > 1/4" <input type="radio"/>		
Gutter Flow Slope _____		
Curb Running Slope _(avg.) _____ ≤ 8.3% <input type="radio"/> > 8.3% <input type="radio"/>		
Counter Slope (+/-) _____ ≤ 5.0% <input type="radio"/> > 5.0% <input type="radio"/>		
Slope Differential _____		

RAMP RUN 2	Pass	Fail
Running Slope 2 _____ ≤ 8.3% <input type="radio"/> > 8.3% <input type="radio"/>		
Run 2 Length _____ ≤ 15' <input type="radio"/> > 15' <input type="radio"/>		
Cross Slope 2 _____ ≤ 2.0% <input type="radio"/> > 2.0% <input type="radio"/>		

RAMP RUN 3	Pass	Fail
Running Slope 3 _____ ≤ 8.3% <input type="radio"/> > 8.3% <input type="radio"/>		
Run 3 Length _____ ≤ 15' <input type="radio"/> > 15' <input type="radio"/>		
Cross Slope 3 _____ ≤ 2.0% <input type="radio"/> > 2.0% <input type="radio"/>		

TURNING SPACE	Pass	Fail
Width X _____		
Length Y _____ ≥ 4'* <input type="radio"/> < 4'* <input type="radio"/>		
Slope X (Cross Slope 1) _____ and <input type="radio"/> or <input type="radio"/>		
Slope Y (Running Slope 1) _____ ≤ 2.0% <input type="radio"/> > 2.0% <input type="radio"/>		

MISCELLANEOUS	Pass	Fail
Clear Width (feet) _____ ≥ 4' <input type="radio"/> < 4' <input type="radio"/>		

Name _____ Date _____

Signature _____

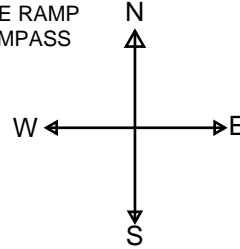
Company/Agency _____

ENVIRONMENTAL SERVICES – TRANSPORTATION DIVISION

DRAFTER	ENGINEER	APPROVED	REVISION	DATE	COMMENTS
TCB			0	11/27/17	INITIAL

FIELD NOTES:

LOCATE RAMP ON COMPASS



Cross Street Name: _____

N/S ST: _____

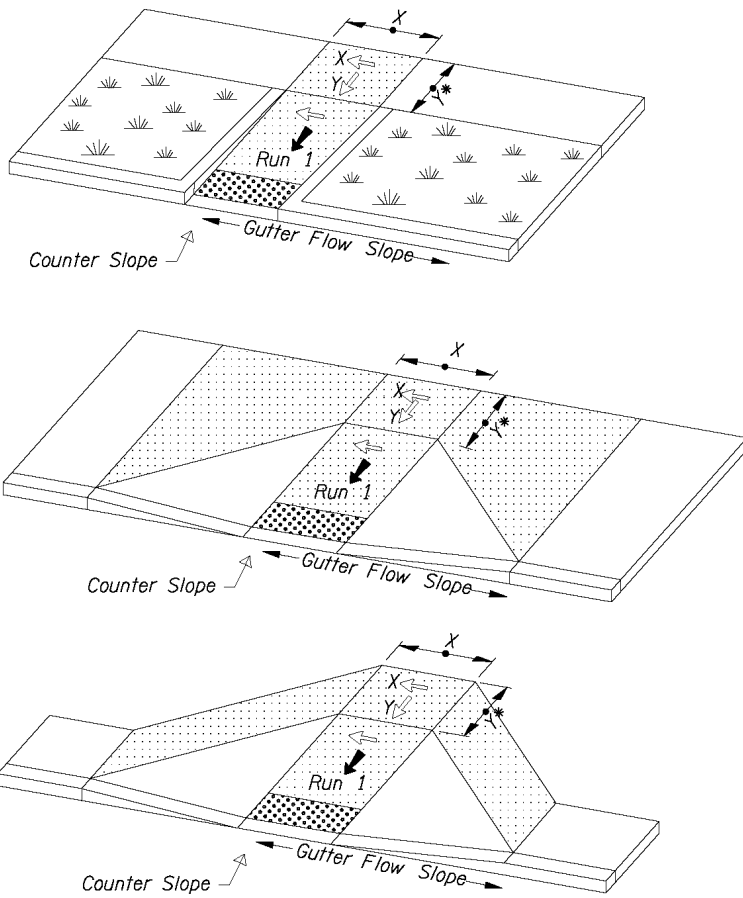
E/W ST: _____

RAMP ID: _____

PHOTO TIME: _____

PHOTO NAME: _____

Calibration Date _____ (mm/dd/yy)



RAMP RUN 1	Pass	Fail
Running Slope 1 _____ ≤ 8.3%	<input type="radio"/>	> 8.3% <input type="radio"/>
Run 1 Length _____ ≤ 15'	<input type="radio"/>	> 15' <input type="radio"/>
Cross Slope 1 _____ ≤ 2.0%	<input type="radio"/>	> 2.0% <input type="radio"/>
Detectable Warning _____ (TD, X)	<input type="radio"/>	(N) <input type="radio"/>
Lip Height _____ ≤ 1/4"	<input type="radio"/>	> 1/4" <input type="radio"/>
Gutter Flow Slope _____		
Curb Running Slope (avg) _____ ≤ 8.3%	<input type="radio"/>	> 8.3% <input type="radio"/>
Counter Slope (+/-) _____ ≤ 5.0%	<input type="radio"/>	> 5.0% <input type="radio"/>
Slope Differential _____		

Where flared sides exist, a 4' wide unobstructed sidewalk is required around the flared sides with cross slope not greater than 2.0%.

If the Running Slope of the sidewalk around the flared sides is more than 5.0%, use a Combination style ramp inspection form.

TURNING SPACE	Pass	Fail
Width X _____		
Length Y _____	≥ 4'* <input type="radio"/>	< 4'* <input type="radio"/>
Slope X _____	and <input type="radio"/>	or <input type="radio"/>
Slope Y _____	≤ 2.0% <input type="radio"/>	> 2.0% <input type="radio"/>

PERPENDICULAR RAMP (PR)

- Pedestrian Access Route (to measure Clear Width)
- Detectable Warning Surface
- Cross Slope (2.0% max.)
- Running Slope (8.3% max.)
- Counter Slope (5.0% max.)
- Turning Space (X & Y) (2.0% max. / 4' x 4' min.)*
* If constrained at back of walk, min. Y length is 5'.
- Gutter Flow Slope (as directed)

MISCELLANEOUS	Pass	Fail
Clear Width (feet) _____	≥ 4' <input type="radio"/>	< 4' <input type="radio"/>

Name _____ Date _____

Signature _____

Company/Agency _____

ENVIRONMENTAL SERVICES – TRANSPORTATION DIVISION

DRAFTER	ENGINEER	APPROVED	REVISION	DATE	COMMENTS
TCB			0	11/27/17	INITIAL

Appendix B – City of Gresham
ADA Ramp Design Exception
Form

City of Gresham ADA Curb Ramp Design Exception

PROJECT NAME:			
ODOT KEY NO.:		ODOT REGION:	
CITY CIP NO.:			
ROADWAY NAME:			
CROSS STREET NAME:			
CORNER POSITION (NE, SE, NW, SW):			

Description of the Project:

Map of Location – Insert a sketch, picture or drawing showing the location of the ramp location labeled with street names.

Description of Exception: (Describe each requested design exception and the specific standard that will not be met for each location)

What is the reason for not attaining the standard? (Explain each requested design exception for each location)

How does the design strategy accomplish accessibility to the maximum extent practicable? (Describe for each location)

What is the effect on Other Standards?

Signatures

Prepared By:

Date:

Print Name:		Phone:			
Company Name:					
Company Address:					
City:		ST:		Zip:	
Email Address:					

Concurred By:

(City of Gresham Transportation
Senior Engineer or Transportation
Division Manager)

(signature)

Date:

(Print Name)

ENGINEER OF RECORD PROFESSIONAL
ENGINEER STAMP

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