



City and County of San Francisco Department of Building Inspection

Business Process Reengineering Report

Summary

December 2007

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Director

BUSINESS PROCESS REENGINEERING FOR THE BUILDING DEVELOPMENT REVIEW AND INSPECTION PROCESS IN SAN FRANCISCO

Business Process Reengineering (**BPR**) is a long established management analytical tool used to effect substantial improvements in large organizations with complex processes. It is a fundamental rethinking and radical redesign of business processes with the goal of achieving dramatic improvements in quality, timeliness and responsiveness in the delivery of services.

In May 2007, the San Francisco Department of Building Inspection (**DBI**), under the direction of Mayor Gavin Newsom and the Building Inspection Commission (**BIC**), embarked on an ambitious Business Process Reengineering initiative to examine the entire building development review, inspection and permitting process for the City and County of San Francisco. The primary goal was to analyze the existing permitting and inspection process city wide, understand its strengths and weaknesses, and then design a new process that will result in a streamlined, efficient process with a focus on delivering high quality and timely services to our citizens.

In June 2007, we invited key decision makers from the Mayor's Office, city departments, and stakeholders from the public to convene as our BPR Executive Steering Committee. Four subcommittees were then formed: **Plan Review and Permit Issuance; Inspections; Automation; and Performance Measures**. Each subcommittee included staff representing city Departments involved in the review and inspection of developments, city union representatives, as well as representatives from industry, community organizations and individual customers. These subcommittees met on a **weekly basis** (and sometimes more frequently) for four months. During this period, several subcommittee members visited other cities, including San Diego, Sacramento, San Jose and Seattle to review their development review processes and compare those to current practices in San Francisco.

As you will see in the information provided in this report, each subcommittee went through an in-depth, detailed analysis of existing processes; identified key findings; and developed a series of specific recommendations that provide San Francisco's departments involved in the permit review and inspection process with an excellent "**roadmap**" to achieve major improvements in the way we do our work. The focus throughout the BPR process remained on implementing changes intended to achieve a simpler, easier-to-navigate, permit process that improves turnaround times, ensures predictability in the process and provides accurate, consistent, and timely service with an emphasis on excellence in customer service.

As a result of the BPR process, a strong foundation and roadmap have been established to guide the implementation process. The recommendations will be prioritized for implementation along with stipulated staffing and budgeting requirements over the next **12 - 24 months**. Cooperation and support by the Mayor's Office, the Board of Supervisors, city departments and their respective Commissions will be essential to the success of this effort. Continued monitoring of the implementation of these improvements will enable us to maximize efficiencies and ensure substantial improvements in customer service.

Simultaneously with the BPR effort, the Department contracted with an independent, professional research company – Corey, Canapary & Galanis Research, in late July and in

August, to conduct **three focus groups** to elicit qualitative insights about the Department's review and approval process from our customers. These focus groups represented a cross-section of the Department's customers – specifically homeowners, building professionals and community and industry representatives – and provided us with additional current data related to public and customer service perceptions. Although we did not include the findings from these focus groups in the deliberations of the BPR subcommittees due to time constraints, the focus groups give us another verifiable source of research that substantiates many of the BPR recommendations. As we move forward with the Implementation Phase, the Department will utilize the insightful information produced from the focus groups' research to ensure that we attain one of our primary goals: being aware of and responding effectively to the needs of our customers.

I am proud to point out that a major finding of our BPR effort is that the staff at DBI, as well as other city agencies, are highly professional, very competent, and possess a great deal of talent, experience and expertise. **The staff is hard working, highly motivated, creative, and committed** to providing high quality and timely service to our citizens.

We have completed this important BPR report, thanks to the dedicated and thoughtful efforts of the nearly **200 participants** listed in the appendix. I especially want to thank the DBI staff who graciously agreed to take on the additional responsibility of chairing and facilitating the BPR initiative, as well as those who participated on the subcommittees. Special thanks also go to our industry subcommittee co-chairs, John Schlesinger from the American Institute of Architects, who led the Plan Review and Permit Issuance Subcommittee; John O'Connor of the Residential Builders Association, who co-chaired the Inspection Subcommittee; Tony Sanchez-Corea of A.R. Sanchez-Corea & Associates, Inc., who co-chaired the Automation Subcommittee; and Gabriel Metcalf, Executive Director of San Francisco Planning + Urban Research Association, who co-chaired the Performance Measures Subcommittee. I also want to thank our customers, representatives of industry and community groups, and other city department staff who took time from their busy schedules to assist us in this invaluable endeavor.



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EXECUTIVE SUMMARY

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The **BPR Executive Steering Committee** completed its review of recommendations forwarded by its four subcommittees in late October 2007. **Over 180 recommendations** were approved for inclusion in this Report. In addition to these key recommendations, “**parking lot**” issues were identified by the subcommittees, noting that these were outside of the scope of this initiative.

HIGHLIGHTS OF DBI BPR KEY FINDINGS AND RECOMMENDATIONS

I. PLAN REVIEW AND PERMIT ISSUANCE SUBCOMMITTEE

This subcommittee examined the **complex review and permit issuance process involving multiple city departments**. Depending upon the scope of a proposed project, reviews often demand the time and resources of the Department of Building Inspection, the Planning Department, the Department of Public Works, the San Francisco Fire Department, the Department of Public Health, the Mayor’s Office on Disabilities, the Redevelopment Agency, the San Francisco Public Utilities Commission, the Municipal Transportation Authority, and others. The subcommittee mapped in detail the “**As-Is**” and “**To-Be**” process involved in real project scenarios – and identified the following **Key Findings and Recommendations**:

Key Findings:

- Automation and technology are not available and/or not fully utilized.
- Lack of well-defined turnaround time for project review.
- Unreasonably long review and processing times.
- Inconsistent plan submittal standards and requirements that vary among reviewing agencies.
- Duplication of plan reviews and rechecks by different reviewing agencies.
- Lack of adequate quality control, staff training manuals and operating procedures.
- Inconsistent application of rules and regulations.
- Inconsistent method of tracking customers in the building.
- Frequent breakdowns in permitting process for customers.
- Improper and inconsistent use of the Permit Tracking System.
- Complex bureaucratic process that still relies too heavily on paper.
- Too many loop-backs in the permitting process.
- Unnecessary hand-offs of customers in the review and processing of permits.
- Frequent bottlenecks at customer service stations.
- Overlapping and sometimes conflicting requirements from different divisions and/or agencies.
- Poor coordination among divisions resulting in a bureaucratic “silo” mentality.

Key Recommendations:

- Create new **permit technician** classification, and/or retrain those in existing classification to obtain skills to streamline the review process.
- Implement **parallel plan check** process for all projects.
- **Improve** inter-agency and intra-agency coordination of reviews and communications.
- Develop, publish, and implement plan review **turnaround times**.
- Expand **Over-The-Counter** services and reviews.
- Install an **automated customer tracking system** in the Permit Center.
- **Centralize** intake/plan submittal process and develop better intake standards.
- **Identify/eliminate** redundant, unnecessary reviews, approvals, and regulations.
- Create/Remodel **Permit Center** to improve the customer's experience.
- Create a true **"One-Stop Shop,"** to include all city review agencies.
- **Reduce paper-based** process and maximize the use of automation and technology.
- Expand **web-based** services.

II. INSPECTIONS SUBCOMMITTEE

Because multiple city departments and agencies are frequently involved in a wide range of inspections, coordination issues and time-consuming duplications were identified as areas in need of change. The subcommittee examined carefully the **"As-Is"** and **"To-Be" review and approval process and steps involved in inspection services**, and made the following **Key Findings and Recommendations**:

Key Findings:

- Lengthy turnaround times for inspections.
- Duplication of inspections by more than one agency.
- Automation and technology are not available and/or not fully utilized.
- Automation and technology are not consistently used across all disciplines.
- Inconsistent procedures for inspection requests between different disciplines.

Key Recommendations:

- Develop, publish, and implement **turnaround times** for inspections to be within two business days of request, with a later goal of one business day.
- **Eliminate duplicate inspections** by defining explicit inspection responsibilities for each agency and agency divisions.
- **Improve coordination** between DBI inspections and other agencies such as PG&E, Water Department, SFPUC, DPW-BSM, DPH, etc.
- **Centralize and automate** inspection scheduling for all disciplines, with all city agencies to adhere to uniform time, hours and methods of inspections.
- **Improve consistency** and uniformity between inspection staff and/or agencies.
- Schedule **Board of Permit Appeals** cases to be heard within **45 calendar days** to expedite inspections' process.

III. AUTOMATION SUBCOMMITTEE

This subcommittee focused on the identification and application of state-of-the-art and appropriate technologies, including areas where more accessible and more convenient web-based/online services can be provided, and communications with customers can be improved. It examined in detail the permit review and inspections' process steps where automation and/or new technology tools can make substantial improvements in terms of accuracy and consistency of data collection, and provide the systemic means to improve the process for those using the system both within city government and the public. The subcommittee identified the following **Key Findings and Recommendations**:

Key Findings:

- Databases of agencies involved in permit reviews and inspections are not linked.
- Lack of an automated system to track customers in the Permit Center.
- Inconsistent use of the Permit Tracking System by staff.
- Inability of the current Permit Tracking System to provide holds, and accountability sign-offs.
- Inability of the current Permit Tracking System to provide accurate information that shows online/real-time status of any project, including identifying which staff person within a specific agency is currently reviewing that project.
- Too much reliance on paper forms, permits, etc.
- Lack of online plan review and limited online permitting processes.
- Lack of automated transfer of inspection information between field sites and the administrative office.

Key Recommendations:

- Develop city-wide **automated permit tracking system** to track the entire development, review, permit, and inspection process.
- **Integrate databases** from all departments involved in permit review and inspections.
- Create a **“smart”** permit numbering system for simplified, more accurate, tracking of projects.
- Provide **updated online services** covering all pertinent information for any property, its permit history, construction type, complaints, violations, conditions of approval, etc.
- Expand the availability, use, and scope of **online permits**.
- Provide field staff with **mobile device** capable of receiving/transmitting/updating information between the field and office database.
- Pilot **electronic plan submittal and plan review**.
- Implement an **automated customer tracking system** in the Permit Center.

IV. PERFORMANCE MEASURES SUBCOMMITTEE

This subcommittee focused on the **identification and development of quantifiable and measurable criteria applicable to all city agencies** involved in the application and plan review, permit issuance and inspection processes. Charged with setting

reasonable, practical and achievable goals/performance standards city wide, and thereby setting the baseline from which ongoing changes may be measured and acted upon, the subcommittee identified the following **Key Findings and Recommendations:**

Key Findings:

- Lack of established turnaround time targets for plan reviews.
- Lack of established turnaround time targets for inspections.

Key Recommendations:

- Implement the following performance measures and turnaround times.
- Provide quarterly and annual reports to evaluate actual performance against established measures and objectives.

Target:

1. To complete and issue to the project sponsor the **initial comprehensive** plan review comments within established turnaround times as described below, for at least **90%** of projects. These turnaround times will apply to **all review disciplines** unless otherwise noted.

a. Small Projects: 10 business days from arrival date to review discipline.

- Simple one or two-story single family and duplex on level lot.
- Minor modifications and additions to single multi-family residential, commercial and industrial buildings.
- Signs with structural calculations.
- Commercial tenant-improvements with minor structural calculations.
- Site retaining walls.
- Foundation repairs.
- Storage racks.

b. Medium Projects: 20 business days from arrival date to review discipline.

- Three-story or more single family dwelling or duplex.
- Custom, unusual single family dwelling including hillside with steel substructure and/or concrete piers or caissons.
- Two, three or four-story multi-family, commercial or office buildings.
- Simple four-story multi-family residential project over a concrete podium.
- Complex commercial and office tenant improvements with or without structural calculations.
- Parking structures (up to three stories).
- Assembly occupancies (churches, schools, restaurants with multiple dining rooms, etc.).
- Excavation and shoring.
- Indoor swimming pool.

- c. **Large Projects: Turnaround times to be determined on a case by case basis determined and provided to project sponsor at submittal time for all reviewing agencies (excluding Planning Department and SFRA). Note: These projects must go through completeness review by appointment only before intake.**
- Complex four or more stories commercial/office buildings or multi-family project including buildings over a concrete podium.
 - High rise buildings.
 - Multiplex theatres/auditoriums.
 - Multi-story shopping centers/malls.
 - Convention centers.
 - Airport.
 - Wastewater and water treatment plants.
 - Projects subject to peer review.
2. **For building permit application**, Planning Department and SFRA to complete and issue the **initial comprehensive plan** review comments/corrections, within **15 business days** of arrival date, for **90%** of projects.
 3. To schedule all rechecks within **three business days** of request for at least **90%** of projects.
 4. To **distribute all submitted drawings** to next review station within **one business day** for **90%** of projects.
 5. To schedule **pre-application meetings** for all city agencies, excluding Planning Department and SFRA, within **three business days** of request and to be held within **10 business days** for **90%** of projects.
 6. For **Planning Department and SFRA**, to **schedule pre-application meetings** within **three business days** of request to be held within **15 business days** for **90%** of projects.
 7. For **all city agencies**, to perform field inspections associated with DBI permits within **two business days** of request for **90%** of projects with a long-term goal of **one business day**.
 8. For **DBI and SFFD**, to **respond to life hazards/life safety/lack of heat** complaints within **one business day** for **100%** of requests.

AS-IS AND TO-BE PROCESS SAMPLE MAPS

OVER-THE-COUNTER WITH PLANS

“As-Is” Mapping Issues:

- No tracking of customer; wait times vary. Bottlenecks occur.
- Not all agencies are in close proximity of each other; some agencies are not adequately represented at the Permit Center.
- Lack of proper screening until the specific station reviews the project, resulting in the need for more rechecks and rejected applications.

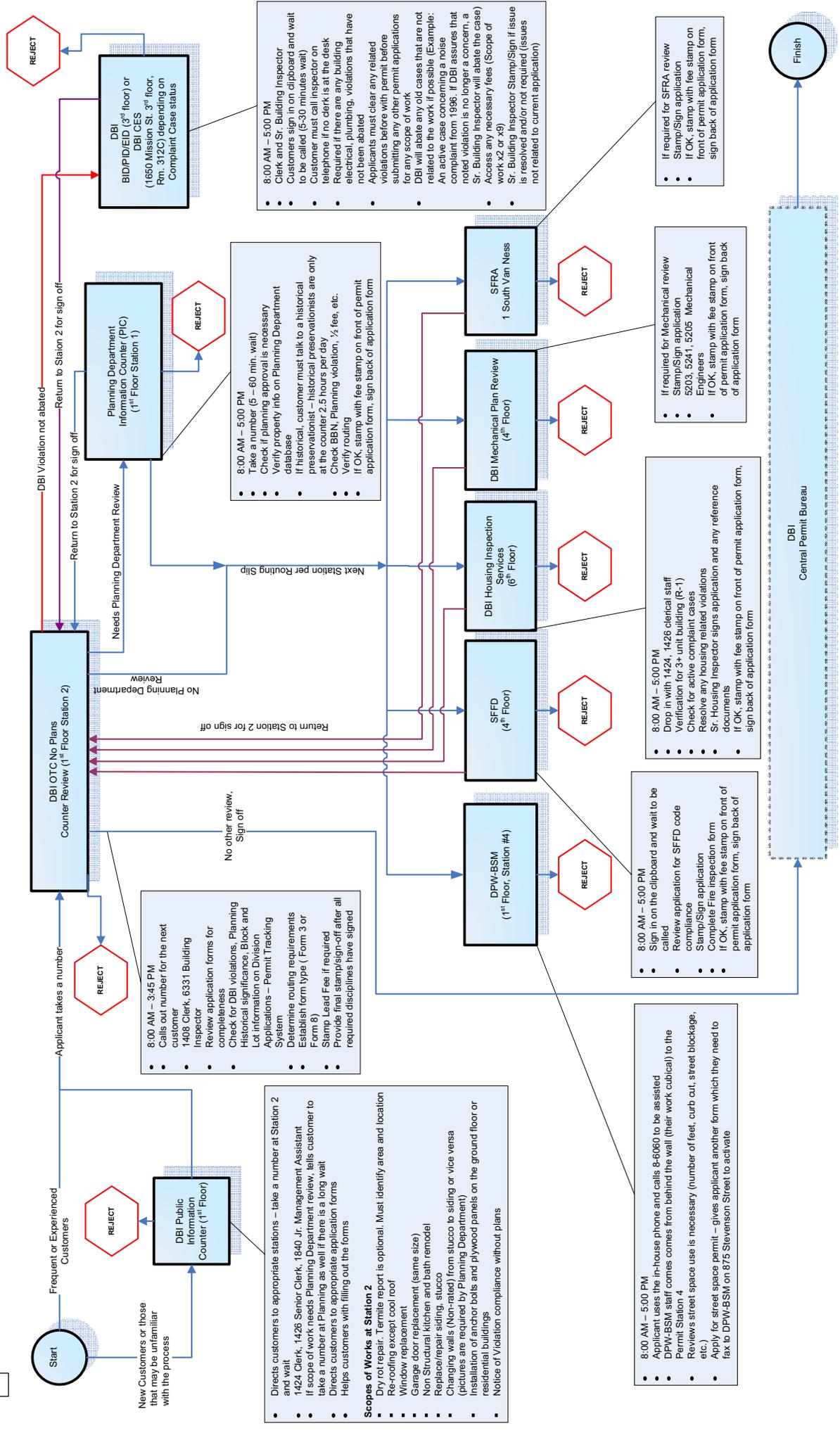
“To-Be” Mapping Narrative:

1. Registration or self-help kiosk, directed to Records or IPR (Initial Permit Review). **No more than 60 seconds.**
2. Help Desk is available for general questions and procedures for all categories listed below.
 - a. Obtaining records.
 - b. Registration or self help kiosk (**no more than 60 seconds**), routed to records station.
 - c. Triage and recheck appointments, non-DBI submittals, records, applications (example: Planning conditional use or variance applications).
 - d. Registration or self help kiosk (**no more than 60 seconds**), routed to station.
1. **IPR Permit Technician** determines if application requires routing to Planning Department. If routing is required to Planning Department, this station is always the first station the customer visits via the automated customer tracking system. If the Planning Department rejects the submittal, or if it requires additional information, the customer returns with necessary information, signs in at Registration and proceeds via the automated customer tracking system directly to the Planning Department station for final sign-off.
2. IPR Permit Technician determines if application complies with OTC rule (**less than one hour of review per station**). If it does not comply, customer proceeds to submit application under “Addendum Submittal” process.

If it does comply, IPR Permit Technician determines if routing required to disciplines at other stations. Permit Technician determines fee valuation and sends customer to cashier for filing and plan review fee payment, prior to any plan review work being performed.
5. Customer returns with receipt from cashier to continue processing.
6. If IPR Permit Technician determines application needs to be routed to other disciplines, Technician can call upon inspector/plans examiner from other stations to review if simple sign-off is required. If no other disciplines are required to review application and drawings, IPR Permit Technician handles all other functions (**including DPW-BSM in some cases**).

7. IPR Permit Technician performs all other tasks listed in this **Report Section III B, “Department of Building Inspection: Permit Center, Station 2.”** If no other stations are required to review the application and drawings, IPR Permit Technician determines final plan review valuation and sends customer to cashier for final fee payment and to obtain permit and job card. While customer pays fee, Permit Technician stamps drawings. Customer returns with permit, job card and receipt from cashier and collects drawings.
 - a. To ensure early tracking of SFPUC wastewater/water capacity charges, drawings must include information such as square footage, fixture count, etc. for all permit applications.
8. **If other stations need to review application and drawings,** IPR Permit Technician determines routing and sends customer to next station.
9. If other stations need to review application and drawings, customer carries drawings to each station for approvals. If corrections are needed, customer returns with corrections via **a recheck appointment**. If no corrections are needed, customer proceeds to permit issuance station.
10. **Customer is responsible for collating drawings** to make two approved sets. IPR Permit Technician at Permit Issuance Station verifies that all stations have approved the drawings.
11. IPR Permit Technician at **Permit Issuance Station** determines final plan review valuation and sends customer to cashier for final fee payment and to obtain permit and job card. While customer pays fee, Permit Technician stamps drawings. Customer returns with permit, job card and receipt from cashier and collects drawings.

BPR – Plan Review and Permit Issuance Subcommittee As-Is Mapping: Over-The-Counter (OTC) Without Plans



RESIDENTIAL DEMOLITION/NEW CONSTRUCTION – ADDENDUM

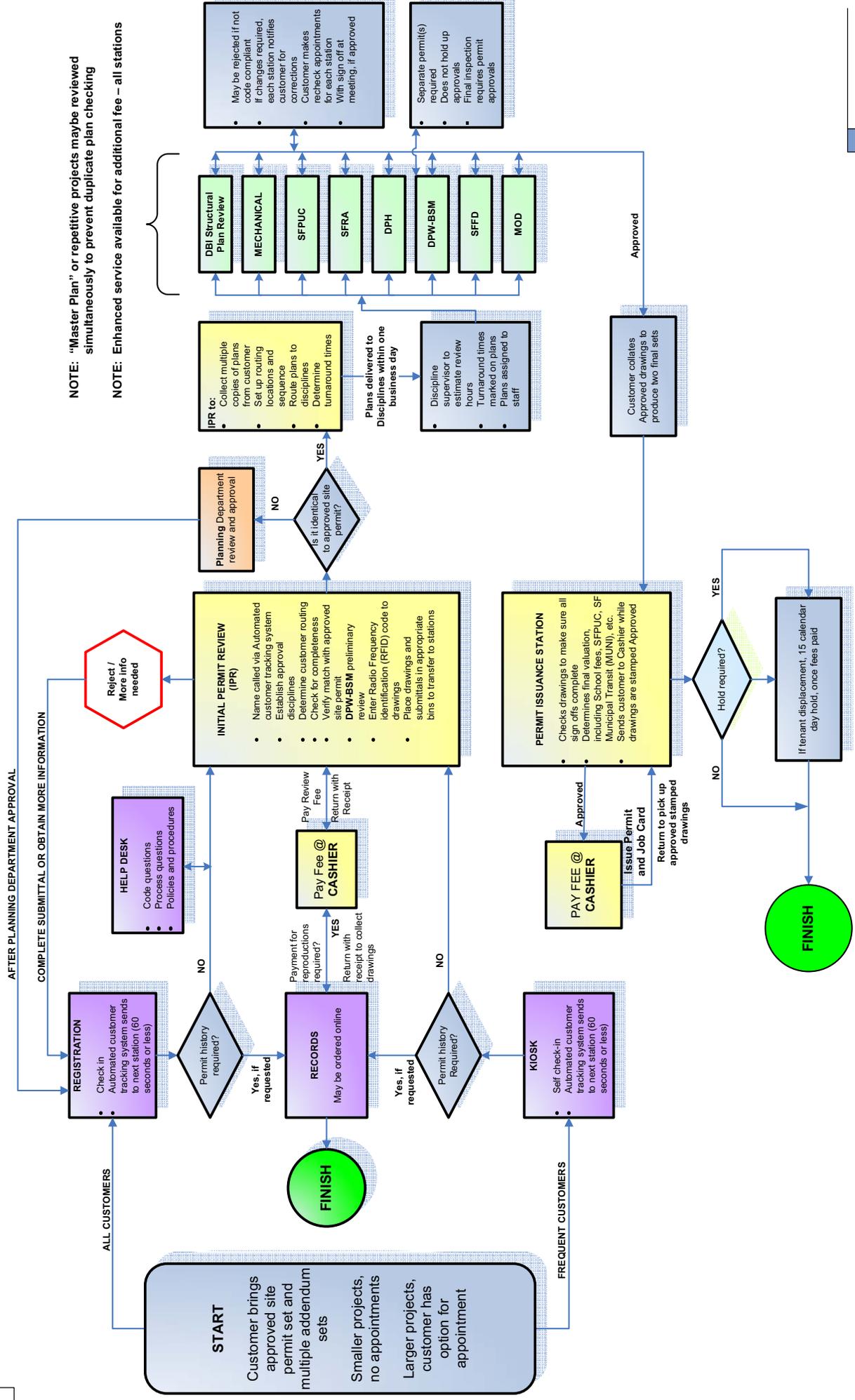
“As-Is” Mapping Issues:

- Order of review by different agencies is uncertain.
- Rechecking of documents among agencies; limited coordination among agencies.
- Limited coordination of recheck appointments and collating drawings for final review.
- Limited tracking of drawings.
- No guaranteed turnaround times.

“To-Be” Mapping Narrative:

1. **Full submittal sets, parallel plan review:** customer is notified number of sets required, based on routing. Customer brings copy of approved site permit.
 - a. IPR Permit Technician is responsible for checking for completeness of addendum submittal and that it matches approved site permit.
 - b. Turnaround times for **first set of plan review comments** after initial plan review to be within **10 business days** for small projects, **20 business days** for medium projects (See Performance Measures Subcommittee Report for specific project descriptions).
 - c. **Recheck** appointments to be scheduled with original plan examiner within **three business days** from day of request.
 - d. Customer to control rechecks with original plan examiner when ready for all disciplines.
2. **Help Desk** is available for general questions and procedures for all categories listed below.
 - a. Obtaining records.
 - b. Registration or self help kiosk (**no more than 60 seconds**), routed to records station.
 - c. Triage and recheck appointments, non-DBI submittals, records, applications (example: Planning conditional use or variance applications).
 - d. Registration or self help kiosk (**no more than 60 seconds**), routed to station.
3. Customer responsible for **obtaining sign-offs from each station**, collating drawings to make two approved sets.
4. Permit Technician at Permit Issuance Station **verifies that all stations** have approved the drawings.
5. Permit Technician at Permit Issuance Station determines final plan review valuation and sends customer to cashier for final permit fee payment and to obtain permit and job card. While applicant pays fee, Permit Technician stamps drawings. **Customer returns with permit, job card and receipt from cashier and collects drawings.**

BPR – Plan Review and Permit Issuance Subcommittee To-Be Mapping: Residential Demolition/New Construction - Addendum



NEW HIGH RISE – SITE PERMIT

“As-Is” Mapping Issues:

- No tracking of customer; wait times vary. Bottlenecks occur and some fees for service are lost.
- Limited coordination of application materials by all agencies.
- Order of review by different agencies is uncertain.
- Rechecking of documents among agencies; limited coordination among agencies.
- Limited coordination of public notification among DBI and other agencies.
- Too many forms.

“To-Be” Mapping Narrative:

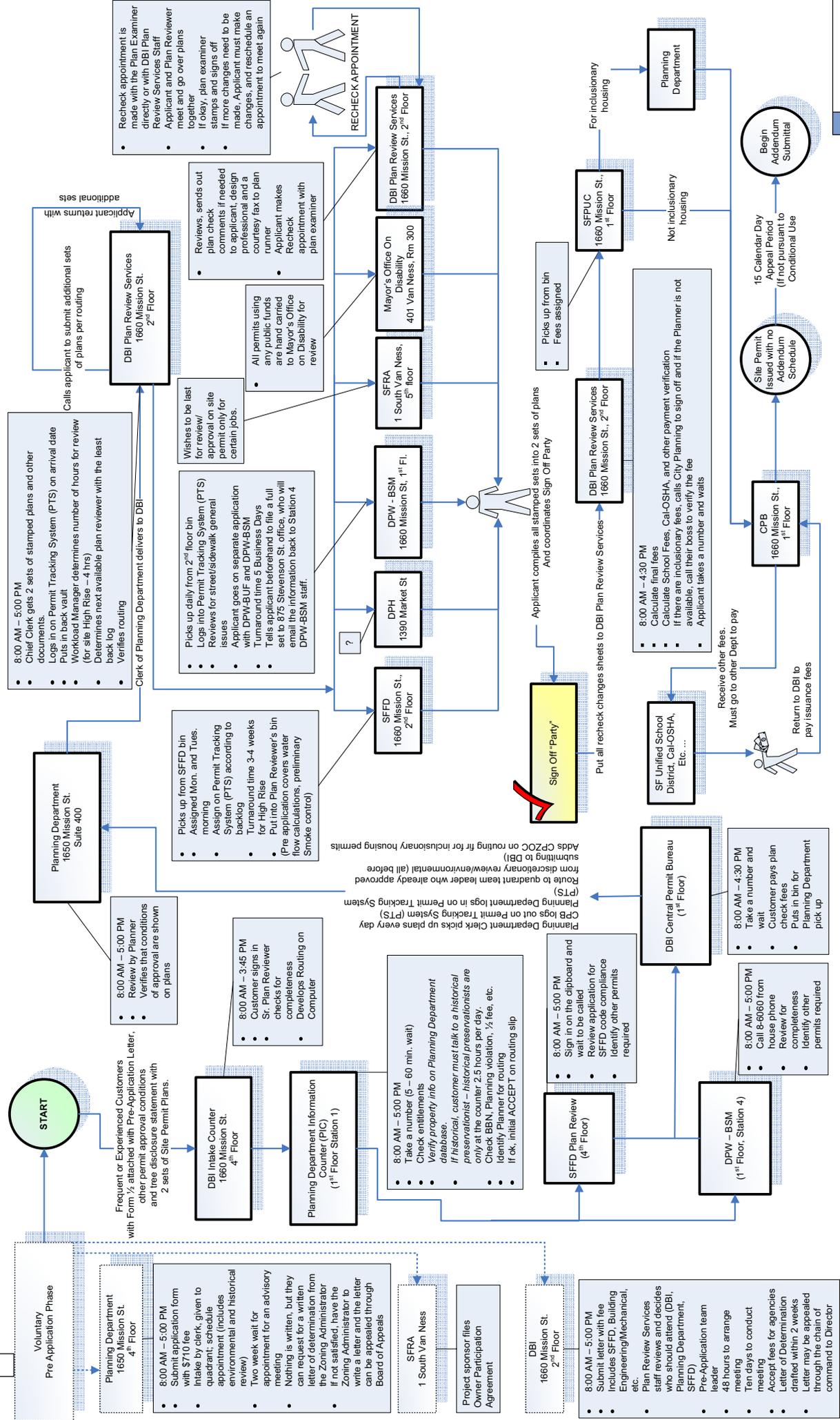
1. Registration or self-help kiosk, directed to IPR (**Initial Permit Review**). No more than 60 seconds.
2. **Help Desk** is available for general questions and procedures for all categories listed below.
 - a. Obtaining records.
 - b. Registration or self help kiosk (**no more than 60 seconds**), routed to records station.
 - c. **Triage and recheck appointments**, non-DBI submittals, records, applications (example: Planning conditional use or variance applications).
 - d. Registration or self help kiosk (**no more than 60 seconds**), routed to station.
3. **Mandatory pre-application coordination conference** with DBI, Planning Department, DPW-BSM, SFPUC, SFFD, SFRA, etc. (for a fee), to address specific questions regarding code interpretations, prior to submitting the application. Written determinations are to be provided by all participating agencies.
4. IPR Permit Technician determines fee valuation and sends customer to cashier for filing and plan review fee payment, **prior to any work being performed**.
 - a. Issue one permit for both demolition and replacement. Add box to PTS to check off.
5. cursory plan review at IPR is to be increased to capture more code issues **during initial plan review**.
 - a. To ensure early tracking of SFPUC wastewater/water capacity charges, drawings must include information such as square footage, fixture count, etc. for all permit applications.
 - b. If project falls within SFFD jurisdiction, preliminary review is required by the SFFD.

6. **Planning Department** staff (or **SFRA**, if in its jurisdiction) is to make initial determination on actual approvals during initial plan review, to determine if project may even proceed.
 - a. Planning Department staff or IPR Permit Technician to determine if eviction is part of this work, resulting in project being put on hold, pending outcome.
 - b. IPR completeness check needs to indicate if the project is subject to a conditional use application. For example, all residential demolitions require a conditional use authorization. This affects both the notice and the appeals process and must be coordinated between DBI and Planning Department.
7. Customer returns with receipt from cashier to continue processing.
8. IPR Permit Technician performs all other tasks listed in this **Report Section III B, "Department of Building Inspection: Permit Center, Station 2."**
9. Use Radio Frequency Identification (RFID) codes to **automate tracking of plans** (the San Francisco Library just did this).
10. Application and drawings are routed to Planning Department for **discretionary review process**.
11. Planning Department "log-in" of workload/assignment to reviewer. Use PTS to automate. Email sent to customer resulting in **more clarity to identify Planner**, send to DBI to estimate turnaround time.
 - a. After discretionary process is completed, Planning Department approved plans sent to DBI within **one business day**.
 - b. Application has limited review by DBI and SFFD for site permit issues only. If application requires changes prior to site permit approval, notification is made to IPR Permit Technician. Customer is notified by IPR Permit Technician via email and mail. Customer retrieves plans, makes necessary changes or provides additional information. **Recheck appointment** is scheduled with DBI or SFFD for site permit issues sign-off.
 - c. If DBI and SFFD approve for site permit issues, application proceeds to Processing Station. Customer notified via email and mail – maybe full set of plans or site permit approval only – customer is responsible for next action. Customer is notified of number of sets required for addenda submittal(s). Limited number of addenda is allowed for Residential Demolition/New Construction.
 - d. When customer is notified of approval of site permit (automatic by system), customer decides whether to opt for **"Express on Premium Plan"**, pay fee and be routed there.
12. **Customer supplies addendum** schedule for IPR Permit Technician review and approval. IPR Permit Technician determines routing to other stations for addendum.
13. Options for customer for **site permit approvals**:
 - a. Site permit approval (customer requests after discretionary process at Planning Department or SFRA) - Starts the clock for 15 calendar days appeal process.

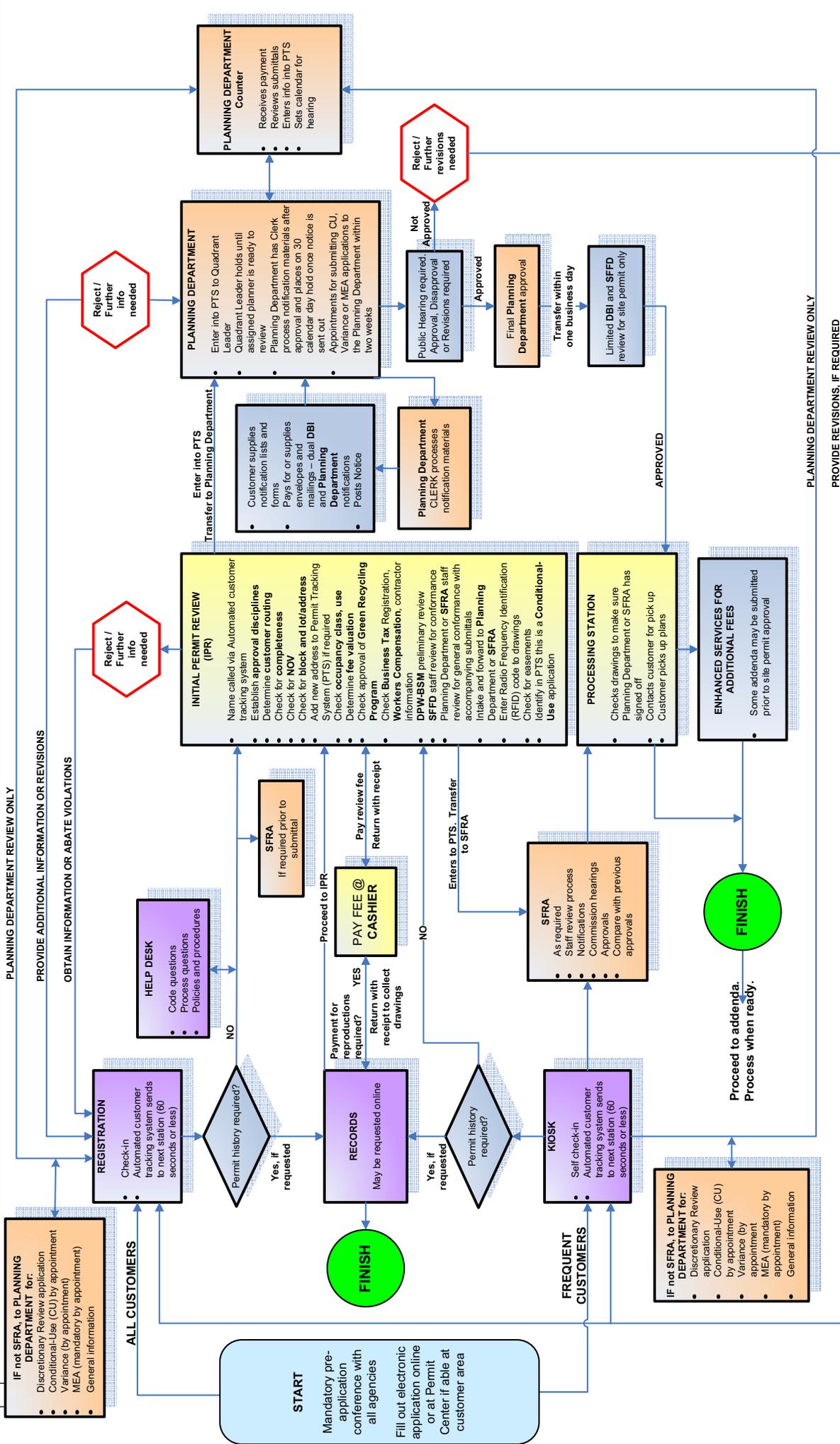
Customer picks up drawings and application at Processing Station and proceeds with approval process.

- b. Site permit submittal – allows for initial review by Planning Department or SFRA, without expending fees for the structural addendum.

BPR - Plan Review and Permit Issuance Subcommittee As-Is Mapping: New High Rise – Site Permit



BPR – Plan Review and Permit Issuance Subcommittee To-Be Mapping: High Rise – Site Permit

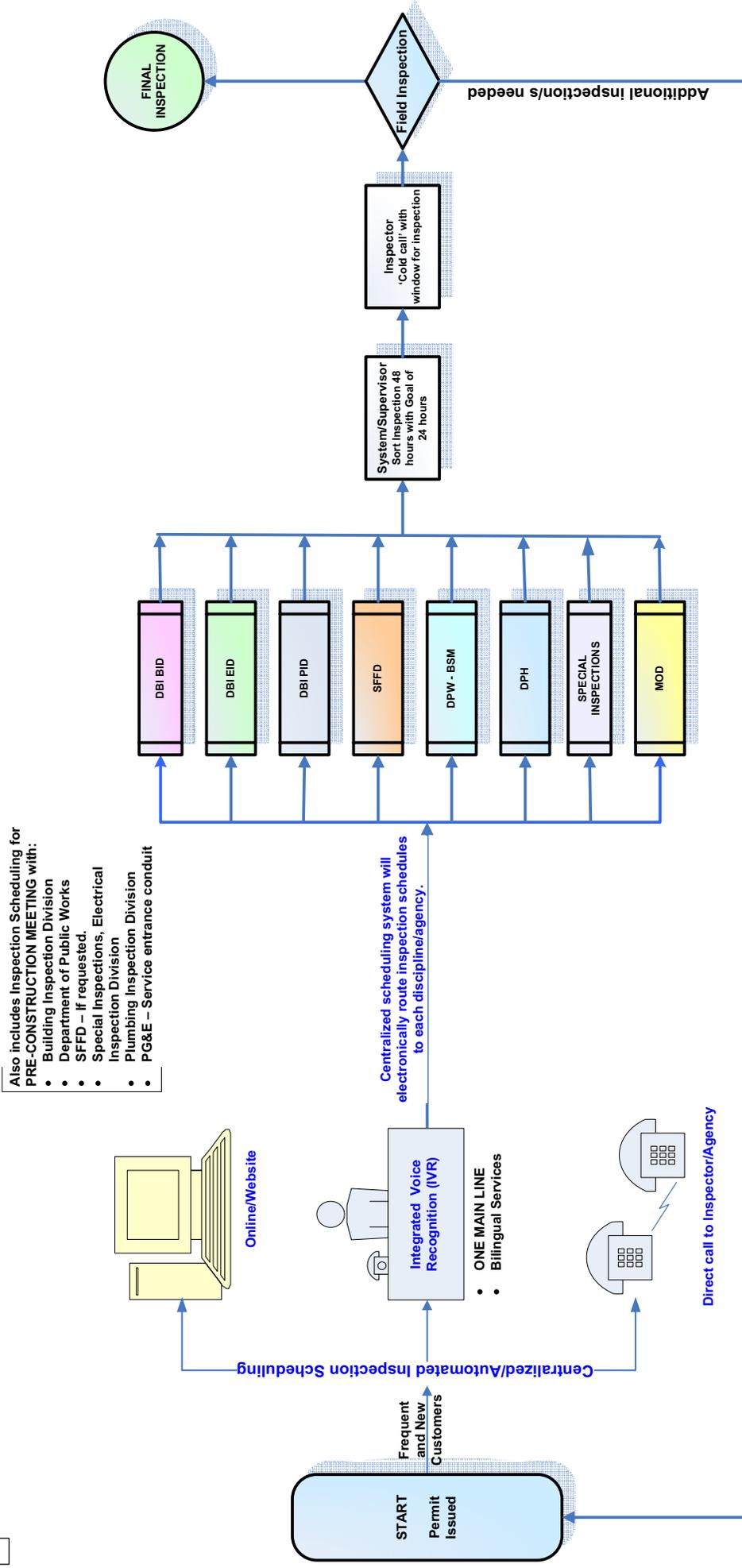


INSPECTION SCHEDULING

Provide a centralized and automated inspection scheduling system for all disciplines:

- Integrated Voice Recognition System (IVR)
- Online / Website
- In-person

BPR – Inspections Subcommittee To-Be Mapping: Inspection Scheduling



FEATURES OF CENTRALIZED/AUTOMATED INSPECTION SCHEDULING:

- Provide an option to talk to inspector/live person, offer translation such as Chinese and Spanish.
- Hybrid system that is partly automated for inspection time slots, with supervisors allocating day-of, to provide needed flexibility (inspector calls to confirm).
- Include generated type of inspections that are known to take time, so that automated system can tell how many of what types you need to provide on any given day.
- Coordinated inspections – Allow slots/hours for coordinated inspections.
- Pre-Final – contractor makes call on need for pre-final, once all trades signed-off. Building signs off final inspection.
- Extensions/revisions are approved with specific timeframes towards completion as progress made within timeframe.
- Final Inspections – follow through by DBI for NOV. Computer to finalize all expired permits and abate any complaints & notice of violations/.

