

# **CITY OF MONTCLAIR**

## **GENERAL PERMIT CONDITIONS AND UTILITY TRENCH SPECIFICATIONS**

Revised September 3, 2013

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## 1-GENERAL

- 1.1 **Standards and Specifications** – The work shall be done in accordance with the current City of Montclair Standards and Specifications and these Conditions and Specifications. Any deviation shall be approved in writing by the City Engineer.
- 1.2 **Changes or Additions to Permit** – The Public Works Department reserves the right to make any changes or additions to a permit after issuance if such changes or additions are believed necessary for the protection of the City Streets or for the health and safety of the public.
- 1.3 **Relocation** – If any part of an installation interferes with the present use of streets by the general public or is in conflict with future or current City improvement projects, it shall be removed or relocated as directed by the Public Works Department at the expense of the Permittee or his successor in interest. There shall be no valves or manholes installed within spandrels, cross gutters or curb gutters.
- 1.4 **Utility Construction** – Permits for utility trenching, including utility service trenching, within City right-of-way, shall be issued to the respective utility purveyor or a California licensed contractor. The Permittee shall warranty the trench repair for one year from the Transportation Department approval date. Following the Permittee warranty period, the respective utility purveyor shall be responsible for the trench repair.
- 1.5 **Licensed Contractor** – All excavation, repair and restoration in City street right-of-way shall be performed by a contractor with the appropriate license issued by the State of California Contractors License Board or by utility purveyor's regular employees.
- 1.6 **Permit Possession** – Other than emergency repairs, there shall be no work performed in City street right-of-way until a permit is issued. A copy of this permit, a set of approved plans and permits required by any other legally constituted authority shall be on site at all times construction is in progress. Permits that require excavation shall be valid only after an Underground Service Alert inquiry identification number is issued.
- 1.7 **Sanitary Facilities** – The Permittee shall provide and maintain enclosed toilets for the use of employees at all times while work is in progress.
- 1.8 **Permittee Responsibility** – In addition to all conditions herein, the Permittee is responsible for safety and construction requirements within the limits of the project. The Permittee or his employees shall abide by all the regulations of any legally constituted authority.
- 1.9 **Hold Harmless** – The Permittee shall preserve and save harmless the City and each officer and employee thereof, from any liability or responsibility for any accident, loss of damage to persons or property happening or occurring as a proximate result of Permittee's negligence or the negligence of Permittee's agents, servants, employees or

contractors in the design or performance of any work undertaken under any permit granted to Permittee.

- 1.10 **Notification** – Except in emergencies, the Permittee shall notify the assigned City inspector one working day, excluding weekends and holidays, prior to starting a project and before beginning each phase of construction. In addition, the Permittee shall notify USA 48 hours prior to any excavation.
- 1.11 **Inspection** – All construction performed in relation to a permit shall be inspected prior to and during installation by City personnel. Construction performed without inspection may be subject to removal and replacement. The entire cost of removal and replacement shall be borne by the Permittee, regardless of whether the installation removed was found to be defective.
- 1.12 **Failure To Comply** – Should a Permittee fail to comply with the provisions of the permit or the requirements of any legally constituted authority, the Public Works Department may order the Permittee to stop work, wholly or in part, until the discrepancies have been resolved to the Department's satisfaction. Upon satisfactory completion of correction, written approval from the Department shall be required before work resumes. Failure to comply shall result in revocation of permits. The Department may perform the work required or arrange for the work to be done and the entire cost of the required work shall be borne by the Permittee.

## **2-PUBLIC CONVENIENCE AND SAFETY**

- 2.1 **Traffic and Access** – The Permittee's operation shall cause no unnecessary inconvenience to the public. The access rights of the public shall be considered at all times and unless otherwise authorized, traffic shall be permitted to pass through the work area at all times. Safe and adequate pedestrian and vehicular access shall be provided and maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, hospitals, and establishments of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Department's City Engineer.
- 2.2 **Traffic Control** – Traffic Control shall conform to the current Caltrans Manual of Traffic Controls. The handbooks published by American Traffic Safety Services Association Guide and the Work Area Traffic Control Handbook or other traffic control manuals may be used with approval of the Department's City Engineer.
- 2.3 **Working Hours** – Except for emergency repairs, no work shall be performed within City street right-of-way on weekends, holidays, before 7 AM or after 4:30 PM unless authorized by the City Engineer.
- 2.4 **Dewater Operations** – Release of, or the directing of water onto City streets shall be authorized only the Public Works Department and shall include traffic control per Section 2.2, clean-up per Section 4.1 and erosion control. If erosion occurs, grading shall be as

required in Section 5.4. Discharges shall comply with the National Pollutant Discharge Elimination System and with Federal law, State law and local ordinance.

- 2.5 **Closing Street** – No street shall be closed without authorization from the Public Works Department except in the case of an emergency under the direction of an authorized agency. An authorized street closure will allow the detour of *through* traffic only. The Permittee shall provide a smooth dust controlled route that allows unimpeded access for emergency vehicles and residents at all times. A minimum of ten (10) working days are required to process the application.

To apply for a street closure authorization, submit the following to the Public Works Department.

- Written request for the closure with the time schedule included.
- Detour route and sign locations, a detour plan designed by Registered Civil or Traffic Engineer, if required by the Department.

### **3-PRESERVATION OF PROPERTY**

- 3.1 **Protection of Property** – The Permittee shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

The Permittee shall repair or replace all existing improvements damaged within the right-of-way which are not designated for removal on the approved plans to match the original in finish and dimension. Trees, lawns and shrubbery that are not designated for removal on the plans shall be protected from damage or injury. If damaged or removed because of the Permittee operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible as approved by Department personnel. The Permittee shall give seven (7) days notice to occupants or owners of adjacent property to allow them to salvage or relocate plants, trees, fences, sprinklers and other improvements within the right-of-way which are designated for removal on the plans and would be destroyed because of the work.

- 3.2 **City Facilities** – Prior to construction, the Permittee shall assess the condition of City facilities within project limits and report to the City inspector all damaged, defaced or missing pavement, sidewalk, curb, gutter, traffic signs, pavement markings or hazardous conditions that may exist before work is started. Prior to final acceptance of the project, all USA marks must be removed, water blast all concrete, black out all asphalt, and all City facilities shall be in the same or better condition as determined by Department personnel.

- 3.3 **Traffic Signals** – Traffic signal detector loops, wiring or appurtenant facilities damaged by the Permittee's operation shall be reported immediately to the Public Works Department, telephone (909) 625-9440. Any damage shall be repaired immediately at no expense to the City as directed by the Department.

- 3.4 **Survey Monuments** – The Permittee shall locate, protect or tie-out all survey monuments which may be disturbed or destroyed. Survey monuments shall be located, referenced and a Corner Record filed with both the City and the County Surveyor prior to the start of construction. Following completion of the work, the monuments shall be reset in the surface of the new construction, a suitable monument box placed thereon, or permanent witness monuments set and a Corner Record filed with both the City and the County Surveyor prior to final project notice of completion issued by the Department. All work shall be performed under the direction of a licensed Land Surveyor or registered Civil Engineer at no expense to the City.

#### **4-PROJECT MAINTENANCE**

Surplus dirt, debris, rocks or building materials shall be contained during permit work and the site broomed daily to reduce possibility of being carried by runoff into a storm drain, stream or natural drainage course or lake. At the completion of the permit work, the previous drainage patterns must be restored. Material shall not be placed in such a manner, which might result in the blockage of any drainage structure at either the inlet or outlet.

- 4.1 **Clean-up and Dust Control** – Throughout all phases of construction, including suspension of work, the Permittee shall keep the work site clean and free from rubbish and debris. The Permittee shall also abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary. The use of water resulting in mud on streets or drainage facilities will not be allowed as a substitute for sweeping or other cleaning methods. All soil and construction material shall be removed prior to that portion of the street being made available to traffic.
- 4.2 **Haul Routes** – When required by the Department, obtain a haul route permit before beginning work. Permits are issued approximately five (5) working days after filing of proper plans, fees and application to the Department. Care shall be exercised to prevent spillage on, or damage to City streets. Any such spillage or damage shall be removed or repaired immediately. Dust control shall be provided for all hauling operations.
- 4.3 **Storage in City streets** – There shall be no equipment or materials stored or stockpiled in street right-of-way. Equipment and materials shall be removed from street right-of-way when not in use and at the end of each working day, except as approved by the Department.
- 4.4 **Emergency Response** – Before work is started, the Permittee shall furnish three names and telephone numbers of person's on-call if emergency work is required by the City. The Department, at its sole discretion, may elect to perform emergency work if it is judged as necessary for the protection of the streets or for the health and safety of the public. All emergency work shall be accomplished at no expense to the City.
- 4.5 **Maintenance of Trenches** – Permittee shall perform continuing maintenance of all trenches, including periods of suspension of work, during the course of construction and shall maintain the trench for the life of the installation.

## 5-MATERIALS AND EQUIPMENT

- 5.1 **Pavement Traffic Markings and Striping** – Pavement traffic markings and striping shall be constructed of Fast Dry or Rapid Dry type material and all damaged or removed markings shall be replaced with Fast Dry or Rapid Dry type material unless otherwise approved by Department personnel. Visual uniformity, as determined by Department personnel, may require that adjacent markings and all markings within an intersection be replaced with Fast Dry or Rapid Dry type material by the Permittee at no cost to the City.
- 5.2 **Asphalt Concrete** – Paving asphalt shall be AR4000 ½-inch Type B maximum, medium shall be used. Asphalt dike shall be AR8000 paving asphalt with Type B 3/8-inch maximum, medium grading.
- 5.3 **Base Materials** – Base shall be Class II Aggregate Base or as approved by Department personnel.
- 5.4 **Grading Equipment** – Grading of soil roads or soil shoulders may be accomplished by any means that will provide a smooth, compacted and uniform surface that varies less than 0.1-foot in 10-feet for line or grade up to 300-feet. Projects greater than 300-feet in length will require grading be performed by an approved motor grader.
- 5.5 **Track Equipment** – Track equipment and outriggers used on paved surfaces shall be equipment with street pads and be operated so as not to mar the surface or cause damage to City facility. If pavement is marred, it shall be resurfaced over the entire width as required in Section 8, Trench Resurfacing. If City facilities are damaged, they shall be replaced or repaired as specified in Section 3, Preservation of Property.
- 5.6 **Equipment** – Paving 6-feet wide or wider in a driving lane shall be accomplished by use of a paving machine approved by Department personnel. Shoulder paving and miscellaneous paving shall be as approved by the Inspector.

## 6-TRENCHING

- 6.1 **CalOSHA** – All excavations shall conform to the requirements of the State of California Division of Occupational Safety and Health. The applicant for a permit shall possess a permit to excavate from the Division of Industrial Safety, Department of Industrial Relations, State of California.
- 6.2 **New Streets** – Trenches installed in streets that have been paved within 3 years shall not be open-cut unless otherwise authorized by the City Engineer. If authorized, the trenching will be subject to additional requirements as specified by the City Engineer.
- 6.3 **Depth of Installation** – Underground installations shall have a minimum of 2.5-feet of cover below finished grade.

- 6.4 **Pavement Removal** – Paving shall be cut for removal and excavated in a manner that does not disturb the adjacent pavement. Paving shall be sawcut or cold planed for permanent repair as specified in Section 8. Remnant strips of paving less than 2-feet wide shall be removed and included in the replacement paving. Replacement paving along the edge of paving that does not have curb and gutter, AC dike or AC berm shall be a minimum of 2-feet wide.
- 6.5 **Open Trench** – The maximum length of open trench (excavation or backfill not resurfaced) allowed during construction shall be the distance of construction which can be reasonably installed in a single day. An open trench shall be attended by contractor's personnel at all times. Where pavement has been removed, a minimum of 2-inches of temporary paving shall be placed before that area is made available to traffic. Before leaving the project and at the end of each day, all areas of pavement removal, including sidewalk, drainage courses and driveway approaches shall be backfilled, compacted and surfaced with temporary asphalt. Upon approval of the Department personnel, appropriate areas of the trench may be protected by plate bridging or protective fencing.
- 6.6 **Trench Bridging** – Plate bridging in the traveled way shall be as shown in the Work Area Traffic Control Handbook and the Plate Bridging Standard drawing herein.
- 6.7 **Protective Fencing** – When protective fencing is used to secure an area, it shall be constructed of 6-foot high, pipe framed chain link panels or equal material, secured into position and placed in a manner that there are no gaps larger than 3-inches. Fencing shall be placed a minimum of 4-feet from the nearest driving land and shall be protected by appropriate signing and barriers per Section 2.2, Traffic Control.
- 6.8 **Trench Backfill** – Unless otherwise specified, the material obtained from the project excavations will be suitable for use as fill or backfill, provided that all organic material and other objectionable material is removed. Rocks, plain concrete rubble and pavement grindings obtained from the project will be permitted in the fill subject to the following limitations:
- In trenches up to 3-feet wide, the maximum dimension of any piece used shall be 6 inches; in trenches more than 3-feet wide, 1-foot is the maximum dimension.
  - Pieces larger than 4-inches shall not be placed within 1-foot of any structure.
  - Pieces larger than 3-inches shall not be placed within 1-foot of the subgrade for paving.
- Rocks or rubble included in the fill shall be mixed with approved material to eliminate voids. Slurry (1-1/2 sack) is also an acceptable option for backfill.
- 6.9 **Narrow Trench** – Unless otherwise authorized, trenches in paved areas, 1-foot or less in width, shall be backfilled to pavement subgrade with 1-1/2 sack aggregate/cement slurry.

The slurry shall be protected until cured and pavement placed per Section 8, Trench Resurfacing.

- 6.10 **Inclement Weather** – Other than emergency repairs or as directed by the Department, there shall be no excavation within the traveled way of City streets during periods of inclement weather.
- 6.11 **Manhole Construction** – Manholes shall remain below the grading plan until final paving has been completed and then set flush with the surface. Backfill and testing shall be per Section 7, and shall be independent of the main line trench tests.

## **7-COMPACTION**

- 7.1 **Relative Compaction (RC)** – RC of 95% minimum shall be required for asphalt pavement, paving base material and that portion of backfill which is within 0.5-foot of the paving base material. RC of 90% minimum shall be required for all other fill or backfill. All compaction shall be in accordance with California Test No 216 or No. 231 (ASTM D-1556 or D-1557-70). Use of an alternate compaction test method (e.g. Dynamic Cone Penetrometer) must be approved in advance and will be approved on a case-by-case basis.
- 7.2 **Compaction Testing Frequency and Location** – Trench backfill testing shall be at 250-foot maximum intervals. One test shall be performed for each 4-foot depth or fraction thereof. Pavement subgrade and pavement base material shall be tested at 500-foot intervals. Tests for backfill shall be taken at mid-depth of each 4-feet of backfill starting at the top of the installation. 20% of laterals and 100% of manholes shall be tested independently of the main line. Failure of a compaction test will result in the entire area represented by that test being uniformly reworked and retested at a random location.
- 7.3 **Test Reports** – Tests shall be certified by a registered California civil or geotechnical engineer or testing laboratory in accordance with the State of California test requirements. Test locations shall be determined by Department personnel. Test reports shall be listed individually for each trench or for each type and phase of construction that includes an accurate description of the best location. Compaction reports shall be submitted to the City Inspector prior to permanent paving. If an alternate compaction method is approved per Section 7.1, alternate test reports specified at time of permit issuance shall be submitted.
- 7.4 **Mechanical Compaction** – Backfill shall be placed in horizontal layers of thickness compatible to the material being placed and the type of equipment being used. Each layer shall be evenly spread then tamped or rolled until the specified relative compaction is attained.
- 7.5 **Water Densification** – Densifying by ponding and jetting will not be allowed within 4-feet of finish grade unless confined to the pipe zone and approved by the Inspector. Water densification may be allowed when, as determined by Department personnel, the

base and backfill materials have a sand equivalent of 20 or greater (California Test No. 217) and are of such character that they will be self-draining when compacted and the foundation material will not soften, or otherwise be damaged by the applied water. For authorization to use water densification, submit request and test reports representing the foundation soils and backfill material, at a maximum of 1000-foot intervals to the Inspector five (5) working days prior to starting work.

## 8-TRENCH RESURFACING

- 8.1 **Temporary AC Pavement** – Temporary asphalt compacted to 2-inches thick shall be placed and maintained in a smooth and compacted condition at all locations where paving has been removed and before traffic is allowed to pass over areas of pavement removal. Temporary asphalt shall be removed for permanent repair.
- 8.2 **Pavement Repair-General** – Damaged paving adjacent to the trench edges shall be sawcut and removed in rectangular sections. Remnant strips of paving 2-feet wide or less will be removed and that area included in the paving repair. Asphalt paving shall be placed in a minimum of two lifts and be in accordance with the “Greenbook”, Standard Specifications for Public Works Construction. Latest addition and be a minimum of 95% RC. The repaired section shall be 1-inch thicker than the existing paving but not less than 3-inches thick. Paving shall be placed within fifteen (15) working days of completion of the subsurface installation in accordance with Section 1.5. Areas to be joined with asphalt paving shall be cleaned of all soil and foreign material and tacked 100% coverage of asphaltic emulsion or paint binder.
- 8.3 **Permanent Pavement Repair** – Base paving will be in compacted lifts a maximum of 3-inches thick and the use B-AR-4000 may be required at the discretion of the City Inspector. Finish course shall be a minimum of 1-inch and a maximum of 2-inches thick of C2-AR-4000 flush with the existing paving. Trench sections over 6-feet in width shall utilize a self-propelled vibrating screed paving machine (Barber-Greene or equivalent) and may be subject to additional requirements.
- 8.4 **Trench Options**
- **T-Cut Trench** – After backfill is completed, trench edges shall be sawcut or ground to straight lines a minimum of 1.0-foot from the edge of the excavation or pavement removal and shall be parallel and at right angles to the centerline of the street (see Trench Detail A).
  - **Optional T-Cut Trench** – In cases where the existing pavement has a thickness in excess of 4-inches, grinding a minimum of 1-foot from each edge of the excavation or pavement removal to a minimum depth of 2-inches may be allowed at the discretion of the City Inspector (see Trench Detail B).
  - **Non T-Cut Trench Alternative** – Trench Detail C requires overlay paving in accordance with Section 8.5 for trenches over 200-feet.

- 8.5 **Overlay Paving** – When the T-cut trench or T-cut option is used to repair or restore pavement removal to 200-feet or longer, an overlay shall not be required unless the road has been paved within three years or the road has a superelevation, or tilt cross section. When the non T-cut trench is used to repair or restore pavement removals of 200-feet or longer, an overlay shall be required. The determination of the overlay shall be made by the Public Works Department at the prebid/preconstruction meeting or prior to issuance of the permit. Substantial damage to the roadway beyond the trench excavation as a result of negligence by the Permittee or their contractor shall be repaired to meet or exceed prior street conditions and repair methods will be determined by the Department. The overlay, when required, shall be a minimum of 1-inch thick of D2-AR-4000 placed with a paving machine per Section 5.6 and shall extend beyond pavement removal a minimum of 1-foot laterally and 5-feet longitudinally and shall cover the driving lane or shoulder full width. Roads that have a superelevation or tilt cross section may require full road width overlay in the area of the superelevation or tilt section.
- 8.6 **Excessive Pavement Removal** – Removal of six or more separate areas of pavement or the removal of 15% of the total area of a lane or shoulder by a Permittee within 200-foot length of street, may require an overlay per Section 8.5.
- 8.7 **Pavement Surfacing** – Where there are existing surface coats on the existing paving, open graded paving, chip seal or any type of surfacing that has been removed, the surfacing and paving shall be replaced in-kind.
- 8.8 **Driveway Approaches** – Driveway approaches constructed of asphalt concrete shall be repaired as required and shall also be overlaid 1-inch thick full width to the property line.
- 8.9 **Portland Cement Concrete** – Potholes or trenches in PCC shall be repaired by sawcutting or grinding and removed in full panels at the score lines or as directed by the Inspector. Cross gutters shall be repaired by removing the entire gutter or sawcutting and removing to the centerline or as directed by the Inspector. Spandrels shall be repaired by complete removal and replacement.
- 8.10 **Trench Failure and Repair** – When the Public Works Department notifies Permittee of a failure of the trench (settlement, excessive cracking or alligating, etc.) the Permittee shall coordinate the proposed trench repair method and schedule with the Department.

**SPECIFICATIONS**  
FOR THE  
**DESIGN AND CONSTRUCTION**  
OF  
**PUBLIC WORKS FACILITIES**  
FOR THE  
**CITY OF MONTCLAIR**

*Including:*

- **SEWER SYSTEM**
- **STREETS**
  - PARKWAY IMPROVEMENTS
  - TRAFFIC SIGNAL SYSTEM
  - STREET LIGHTS
  - SURFACE DRAINAGE DEVICES
- **STORM DRAINS**



**MONTCLAIR**

AS ADOPTED BY THE MONTCLAIR CITY COUNCIL  
JULY 1998

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# **SPECIFICATIONS & SPECIAL PROVISIONS FOR DESIGN AND CONSTRUCTION**

CITY OF MONTCLAIR - ENGINEERING DIVISION

City of Montclair 5111 Benito Street, Montclair, CA 91763 Tel: (909) 625-9440 Fax: (909) 621-1584

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## **SECTION 1 - STANDARD SPECIFICATIONS AND PLANS**

All material used in any work done pursuant to the provisions of this City of Montclair Specifications shall be new, first-class material and shall conform to, and the manner of construction of all work items shall be done in accordance with the "Standard Specifications for Public Works Construction," and the "Standard Plans for Public Works Construction," including latest amendments, that are both written and promulgated by Southern California Chapter of American Public Works Association and Associated General Contractors of America Joint Cooperative Committee, herein called "Standard Specifications," and "Standard Plans," and in accordance with the Special Provisions set forth in these City of Montclair Specifications & Special Provisions for Design and Construction. Traffic Signal and Lighting work shall be done in accordance with the applicable sections of the State of California Department of Transportation (Caltrans) Standard Specifications, current edition, hereinafter called "Caltrans Standard Specifications," and the Caltrans Standard Plans, current edition.

In case of conflict between the Standard Specifications and the Special Provisions set forth herein, the Special Provisions shall take precedence over and be used in lieu of such conflicting portions.

Coordination and Interpretation of Plans, Standard Specifications and Special Provisions shall be in accordance with Part I, Section 2, of the Standard Specifications.

## **SECTION 2 - VARIANCES FROM PROVISIONS**

If a literal compliance with any engineering requirement of this Specification is impossible or impractical because of peculiar conditions in no way the fault of the person requesting an exception, and the purposes of this chapter may be accomplished

and the public safety secured by an alternate construction or procedure and the City Engineer so finds, he/she may grant an exception permitting such alternate construction or procedure.

### **SECTION 3 - MATERIALS**

Attention is directed to Part I, Section 4, "Control of Materials," and to Part II, "Construction Materials," of the Standard Specifications for specifications covering concrete aggregates, concrete pipe, miscellaneous metal items, portland cement, bituminous materials, and other materials to be incorporated into the work. Certificates of Compliance may be required on all pipe materials.

All materials furnished and all work performed shall be subject to inspection by the Engineer. The City will hold strictly to the true intent of the Specifications and Drawings in regard to quality of materials and workmanship. Such inspection may include mill, plant, shop, or field inspection as required. The Engineer shall be permitted access to all parts of the work, including plants where materials or equipment are manufactured or fabricated, and he shall be furnished with such materials, information, and assistance by contractors and any subcontractors and suppliers involved in building Public Works facilities, as is required to make a complete and detailed inspection.

Work done in the absence of prescribed inspection may be required to be removed and replaced under the proper inspection, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the City and used in the work thus removed, shall be borne by the party doing such work regardless of whether the work removed is found to be defective or not. Work covered up without the authority of the Engineer shall, upon order of the Engineer, be uncovered to the extent required, and the party shall similarly bear the entire cost of performing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement as directed and approved by the Engineer.

## **SECTION 4 - PERMITS AND LICENSES**

Unless otherwise specified, the parties involved in designing and constructing Public Works facilities shall procure all permits and licenses, including a business license to do business in the City of Montclair, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work. All contractors working within a street or alley right-of-way shall possess a General Engineering Contractor license (Class A) unless otherwise exempted by the City Engineer.

## **SECTION 5 - PUBLIC CONVENIENCE AND SAFETY**

The City may require construction progress schedules and a program for traffic maintenance that shall conform to the provisions in Section 6 and 7 of the Standard Specifications and that shall indicate order proposed to accomplish completion of the work allowing for public convenience and safety. If required, no work will start until these schedules have been approved by the City Engineer.

## **SECTION 6 - SEWER SYSTEM**

**6-01 Sewer System Design:** The design of all new main line sewers and building laterals shall conform to provisions of this Section unless otherwise specifically excepted. Lift stations or pump stations are not permitted except by written permission from the City Engineer.

**6-02 Sewer Service for Large Parcels:** When a lot or parcel of land is of sufficient size that zoning regulations do not prohibit its division into smaller parcels, each of such possible parcels into which such lot or parcel of land legally may be divided, upon which one or more buildings containing plumbing facilities are or may be located, shall be considered as a separate parcel of land. Separate house laterals shall be designed and constructed to the main line sewer from each of such parcels except as to variances permitted pursuant to the provisions of these Specifications and except when the lot or

parcel of land is occupied by an industrial building. If the main line sewer does not extend to a point from which such parcels of land can be served, the property owner shall design and construct a main line sewer so that such parcels may adequately be served.

**6-03 Conformance of Work and Plans to Design Standards:** All plans required by the provisions of the Section for the construction of main line sewers and house laterals shall conform to the standards of design prescribed by the section.

**6-04 Main Line Sewer - Size:** Main line sewer pipe shall have an inside diameter of not less than eight (8") inches and shall have sufficient capacity to carry sewage from the area tributary thereto when computed upon the following basis:

- (a) For R-1 Zones, per acre 0.004 cubic feet per second;
- (b) For R-2 Zones, per acre 0.008 cubic feet per second;
- (c) For R-3 Zones, per acre 0.012 cubic feet per second;
- (d) For C Zones, per acre 0.016 cubic feet per second;
- (e) For light industrial areas, per acre 0.016 cubic feet per second; and
- (f) For heavy industrial areas, per acre 0.21 cubic feet per second.

The City Engineer shall determine the classifications set forth in this section and shall approve any modifications thereof.

**6-05 Main Line Sewer - Velocity:** A main line sewer shall be designed to provide a minimum velocity of two (2) feet per second for pipes flowing one-half (1/2) full except that the City Engineer may approve a gradient which will develop a lower velocity if he/she finds that a gradient which will develop a velocity of two (2) feet per second is obtainable.

**6-06 Main Line Sewer - Grades:** The slope of the sewers shall be shown on the plans in feet of fall per 100 feet of horizontal distance expressed as a percentage. Main line sewers shall have a minimum slope of 0.4%.

**6-07 Main Line Sewer - Location in Streets:** In general, main line sewers shall be located on the centerline of a street, but if this design is not possible, then they shall be located not more than five (5) feet from the center lines of streets. On major highways where separate sewers on each side of the roadway may be required, the location is subject to the approval of the City Engineer.

**6-07a Main Line Sewer - Locations in Alleys:** Main line sewers shall be offset from inverted crown centerline of alleys by five (5) feet and on the opposite side of alleys from water main locations.

Exceptions to the standard locations set forth in this section may be made only upon approval of the City Engineer.

**6-08 Main Line Sewers and Building Laterals - Depth:** The minimum depth for main line sewers shall be six and one-half (6-1/2) feet. The minimum depth for building laterals within the public right-of-way shall be five (5) feet below the gutter flow line grade of a street or five (5) feet below the grade at property line of an alley.

Exceptions to the minimums set forth in this section may be made only by approval of the City Engineer.

**6-09 Manhole Structures:** Manhole structures shall be placed in the main line sewer at all changes in vertical alignment and transitions from curves to tangents in horizontal alignments. The maximum distance between manhole structures shall be 350 feet. All such structures shall be designed according to the standard drawings for manhole structures on file in the office of the City Engineer.

Exceptions to the requirements set forth in this section may be made only on approval of the City Engineer.

**6-10 Terminal Manholes:** Terminal manholes shall be located ten (10) feet upgrade from the downgrade lot line of the last lot served unless greater length is necessary to serve the property. Where the potential for development of upstream property exists, sewer main shall be extended through the frontage of the last property served, and terminal manhole shall include a minimum stub out for future extension. Terminating a sewer main with a cleanout or similar type end structure is prohibited.

**6-11 Building Laterals:** Four-inch or six-inch (4" or 6") building lateral services shall be provided in the street for each lot at the minimum depths provided by Section 6-08 of this section, and, in addition, such depth shall be sufficient to provide a connection to the lowest and/or farthest point of the lot with a cover of one foot and a grade of not less than two (2%) percent. Four-inch laterals are acceptable for R-1 and R-2 developments. R-3, commercial, and industrial developments shall use six-inch laterals.

The alignment and grade of a building lateral shall be straight from the public sewer to the street property line and shall have a fall of not less than two (2%) towards the public sewer except as otherwise permitted by the City Engineer.

When laid within the limits of a public thoroughfare, no building lateral shall be laid less than five (5) feet below the established grade of the same or below the surface, when no grade is established, except by special permission in writing from the City Engineer.

**6-12 Sewer - Pipe Strength:** Vitrified clay pipe used for sewers shall be:

- (a) Extra strength for sewers less than twenty (20) feet in depth;
- (b) Extra strength reinforced with concrete cradle or concrete encasement for sewers greater than twenty (20) feet in depth;
- (c) Extra strength encased in concrete or placed inside of steel pipe backfilled with sand for sewers under railways;
- (d) Reinforced as required by the City Engineer for sewers under large conduits or other structures.

**6-13 Sewer - Pipe Kinds and Sizes:** All sewer pipe shall be either clay or cast iron. All clay pipe shall be first-class; extra strength vitrified clay pipe. All cast iron pipe four (4) inches or six (6) inches in diameter shall be service weight or better cast iron soil pipe. Cast iron pipe eight (8) inches or larger in diameter shall be Class 150. That portion of the pipe extending from the public sewer to the property line shall be not less than four (4) inches in internal diameter.

**6-14 Construction Plans for New Mainline Sewers:** Plans are required for all new mainline sewers and shall be prepared on City Standard Plan and profile plan sheets. All substructures which will be encountered in the construction or which will be installed as part of the improvement shall be shown and designated on the new portion of the plan. Large substructures and utilities which require special treatment in the design of the sewer shall also be shown in the profile.

Soil conditions, particularly in areas known to have high groundwater tables, rock, or filled ground, shall be prospected and the results shall be shown on the profile, if required by the City Engineer.

**6-15 Benchmarks:** All elevations shown on the sewer plan shall be based on the Citywide benchmark system. Temporary or arbitrary benchmarks are unacceptable. Benchmarks are available on the City's website. The benchmark or benchmarks used in the design of the sewer system shall be referenced on the project plans.

**6-16 Standard Plans or Drawings:** Standard Plans for Public Works Construction as promulgated by the Joint Committee of the American Public Works Association and the Associated General Contractors of California shall be used. Sewer manholes shall be designated with an "S" or "SEWER" and "CITY OF MONTCLAIR."

City of Montclair  
Standards and Specifications

Standard Drawings

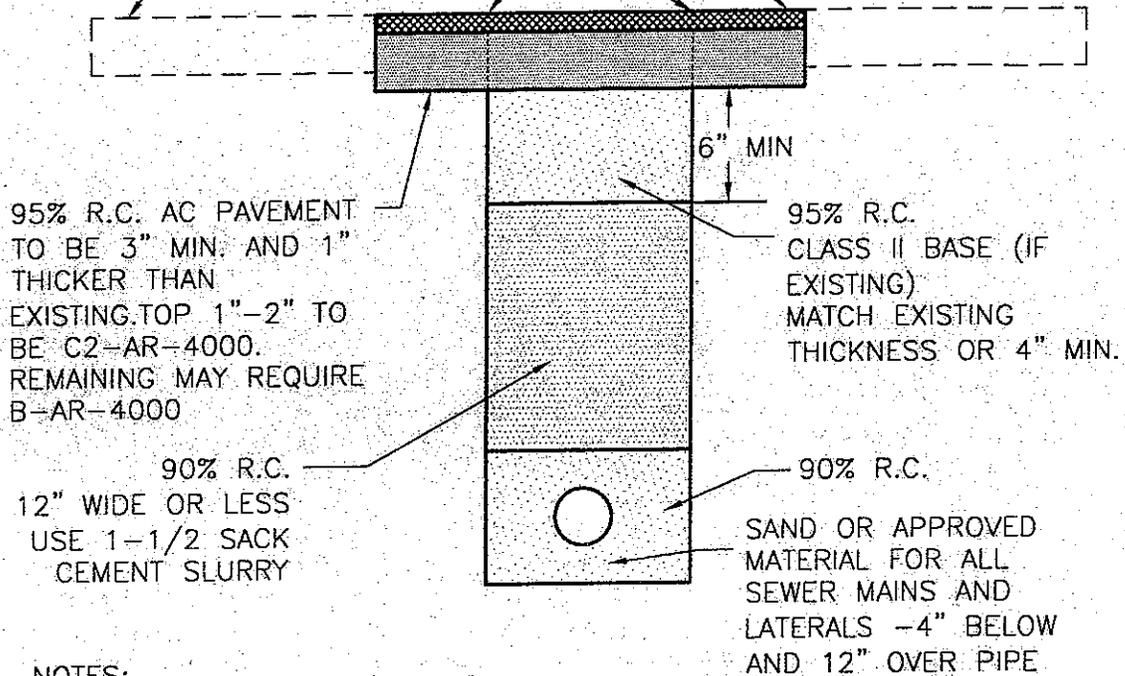
STD. DWG A – T-Cut Trench – Trench Detail.....	1
STD. DWG B – Optional T-Cut Trench – Trench Detail.....	2
STD. DWG C – Non T-Cut Trench – Trench Detail.....	3
STD. DWG D – Trench Overlay.....	4
STD. DWG E – Plate Bridging.....	5
STD. No. 101 – Curb Details.....	6
STD. No. 102 – Drive Approach (Sidewalk Adjacent to Property Line).....	7
STD. No. 103 – Drive Approach (Sidewalk Adjacent to Curb.....	8
STD. No. 106 – Ribbon Gutter.....	9
STD. No. 107 – Street Cross Section.....	10
STD. No. 109 – Standard Cul-de-Sac.....	11
STD. No. 110 – Offset Cul-de-Sac.....	12
STD. No. 111 – Standard Knuckle (60' Right-of Way).....	13
STD. No. 113 - Barricade.....	14
STD. No. 116 – Street Name Sign.....	15
STD. No. 117 – Industrial Street Cross Section.....	16
STD. No. 122 – Centerline Tie Notes.....	17
STD. No. 204 – Residential Lateral.....	18
STD. No. 206 – Sewer Saddle.....	19
STD. No. 210 – Manhole Frame and Cover.....	20
STD. No. 212 – Sand Interceptor.....	21
STD. No. 213 Sand and Grease Interceptor.....	22
Attachment A – Standard Tree Well.....	23
WQMP Gravel Filter Detail.....	24

For details of design and construction for other like items of work, use the Standard Plans for Public Works Construction promulgated by the joint committee of the American Public Works Association and the Associated General Contractors of California

2' OR LESS FROM EDGE,  
REMOVE AND INCLUDE IN  
REPAIR

SAWCUT OR COLD PLANE  
FOR TRENCHING

SAWCUT OR COLD PLANE  
1' FROM TRENCH CUTS



NOTES:

1. ALL EXCAVATIONS WITHIN CITY RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT FROM THE PUBLIC WORKS DEPARTMENT.
2. PERMITS INVOLVING TRENCHING ARE NOT VALID WITHOUT FULL COMPLIANCE OF UNDERGROUND SERVICE ALERT REQUIREMENTS.
3. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL. OSHA.
4. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TRAFFIC AND AT THE END OF EACH DAY.
5. COMPACTION TEST ON BACKFILL IN THE 90% RC ZONE SHALL BE AT VARYING DEPTHS ON 250' INTERVALS AND SUBMITTED TO INSPECTION PRIOR TO PERMANENT PAVING. CLASS II AGGREGATE BASE AND THE GRADING PLANE SHALL BE 95% RC ON 500' INTERVALS.
6. NOTIFY CITY INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
7. OVERLAY PAVING WILL NOT BE REQUIRED PER SECTION 8.5 EXCEPT FOR ROADS THAT HAVE BEEN PAVED WITHIN THREE YEARS AND ROADS THAT HAVE SUPERELEVATIONS OR TILT CROSS SECTIONS.

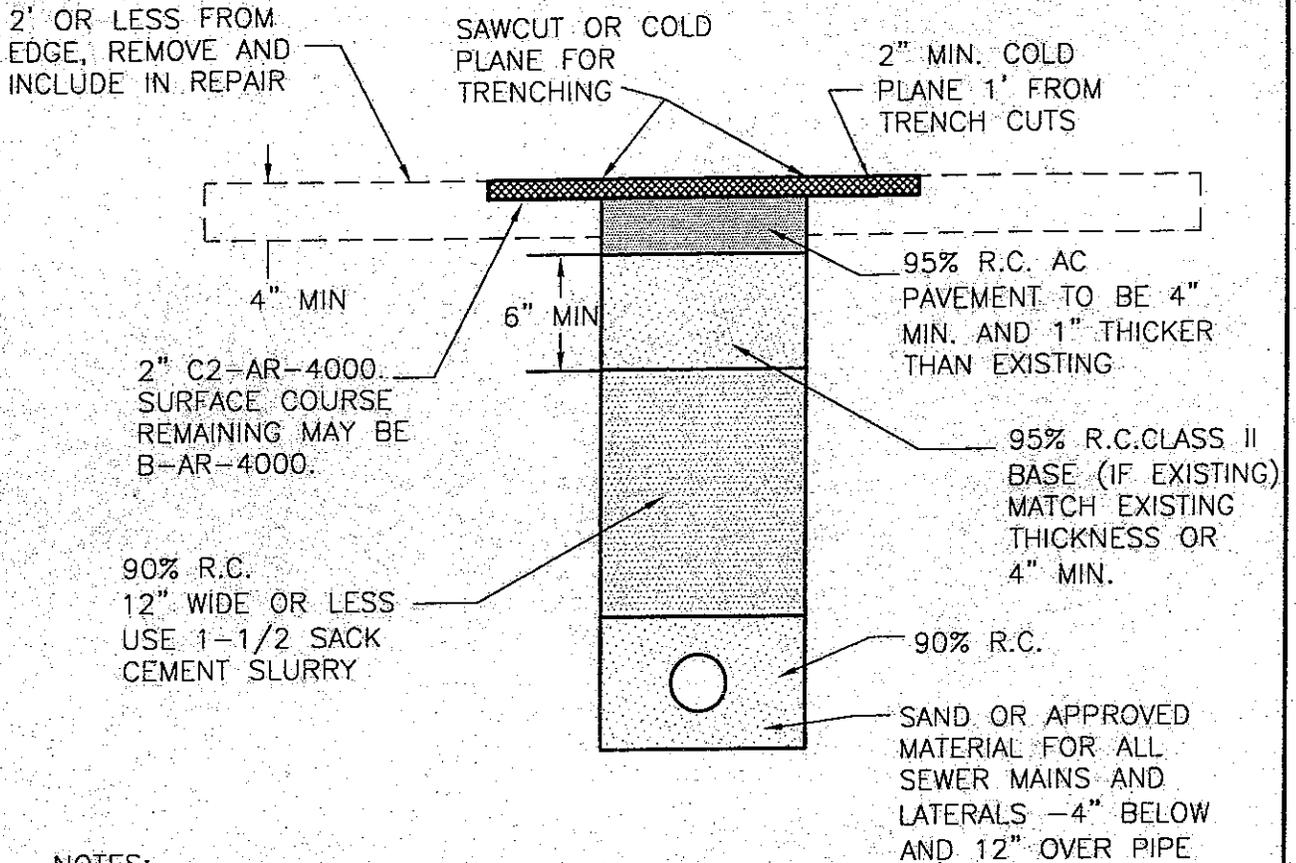
CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

T-CUT TRENCH

TRENCH DETAIL

STANDARD DWG.

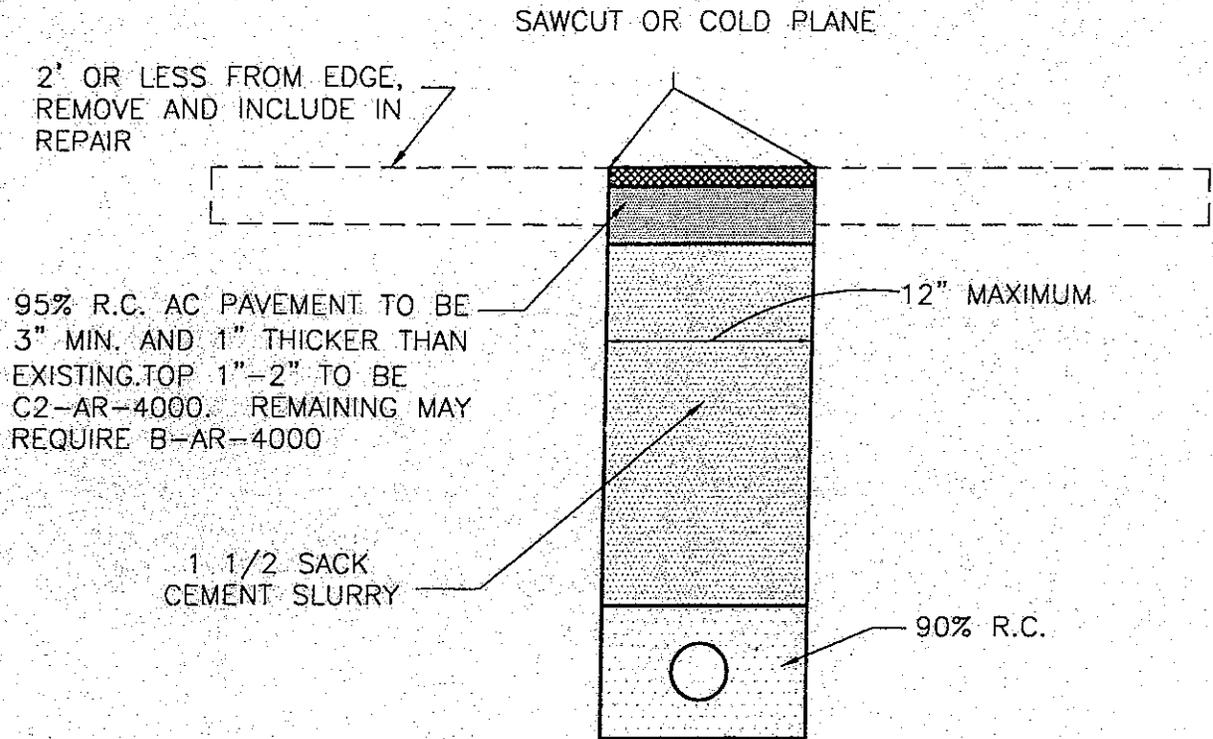
A



NOTES:

1. ALL EXCAVATIONS WITHIN CITY RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT FROM THE PUBLIC WORKS DEPARTMENT.
2. PERMITS INVOLVING TRENCHING ARE NOT VALID WITHOUT FULL COMPLIANCE OF UNDERGROUND SERVICE ALERT REQUIREMENTS.
3. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL. OSHA.
4. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TRAFFIC AND AT THE END OF EACH DAY.
5. COMPACTION TESTS IN THE 90% RC PIPE ZONE SHALL BE ON 250' INTERVALS AND SUBMITTED TO INSPECTION PRIOR TO PERMANENT PAVING.
6. NOTIFY CITY INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
7. OVERLAY PAVING WILL NOT BE REQUIRED PER SECTION 8.5 EXCEPT FOR ROADS THAT HAVE BEEN PAVED WITHIN THREE YEARS AND ROADS THAT HAVE SUPERELEVATIONS OR TILT CROSS SECTIONS.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT		
OPTIONAL T-CUT TRENCH	TRENCH DETAIL	STANDARD DWG. <b>B</b>



NOTES:

1. USE OF THIS STANDARD DRAWING REQUIRES SPECIFIC AUTHORIZATION FOLLOWING A CASE BY CASE REVIEW BY THE CITY'S INSPECTOR. THE PREFERRED TRENCH DETAIL IN MOST CIRCUMSTANCES IS THE T-CUT TRENCH DETAIL.
2. ALL EXCAVATIONS WITHIN CITY RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT FROM THE PUBLIC WORKS DEPARTMENT.
3. PERMITS INVOLVING TRENCHING ARE NOT VALID WITHOUT FULL COMPLIANCE OF UNDERGROUND SERVICE ALERT REQUIREMENTS.
4. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL/OSHA.
5. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TRAFFIC AND AT THE END OF EACH DAY.
6. CLASS II AGGREGATE BASE AND THE GRADING PLANE SHALL BE 95% RC ON 500' INTERVALS.
7. NOTIFY CITY INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
8. OVERLAY MAY BE REQUIRED PER SECTION 8.5 OF THE TRENCH SPECIFICATIONS.

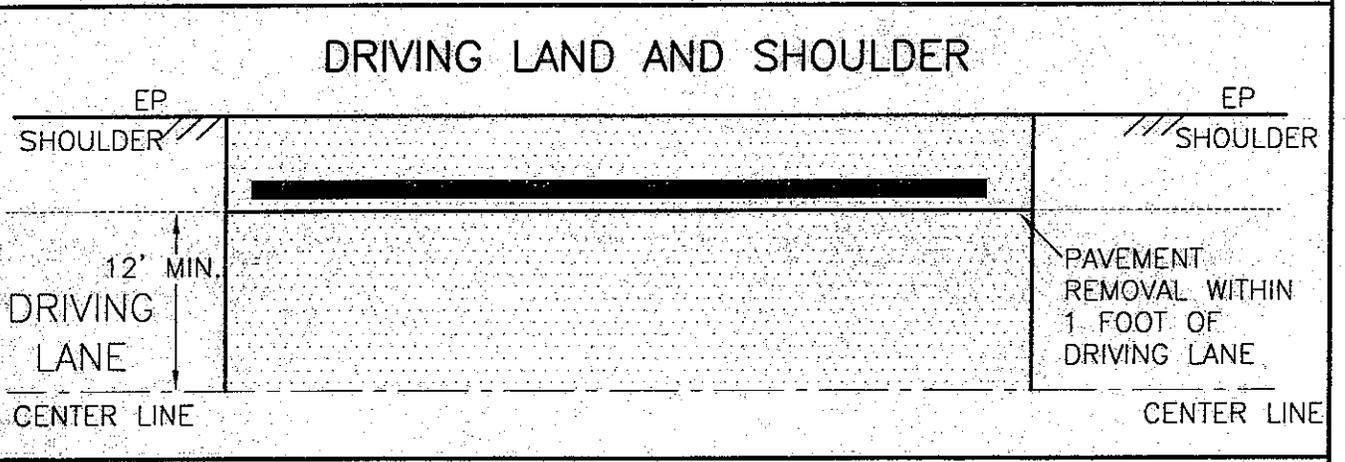
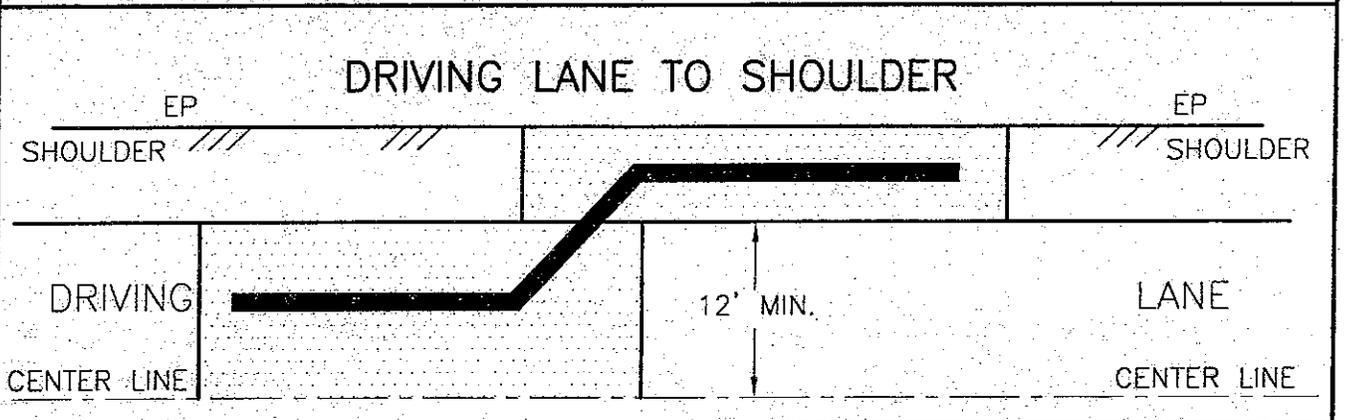
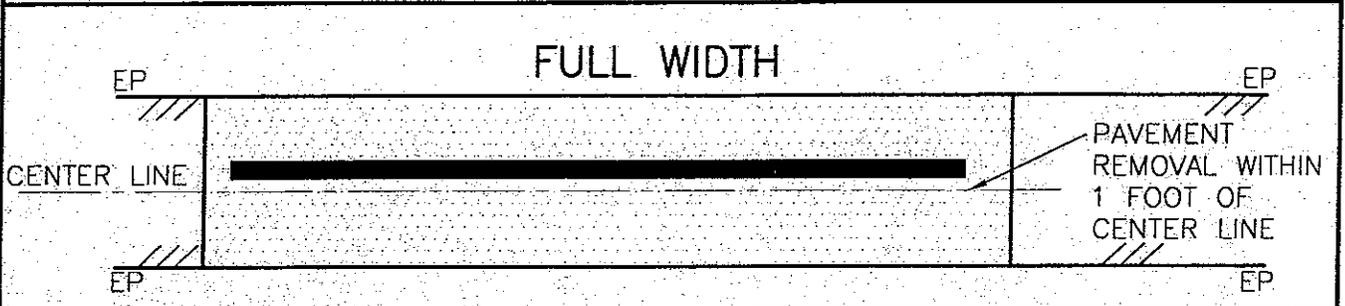
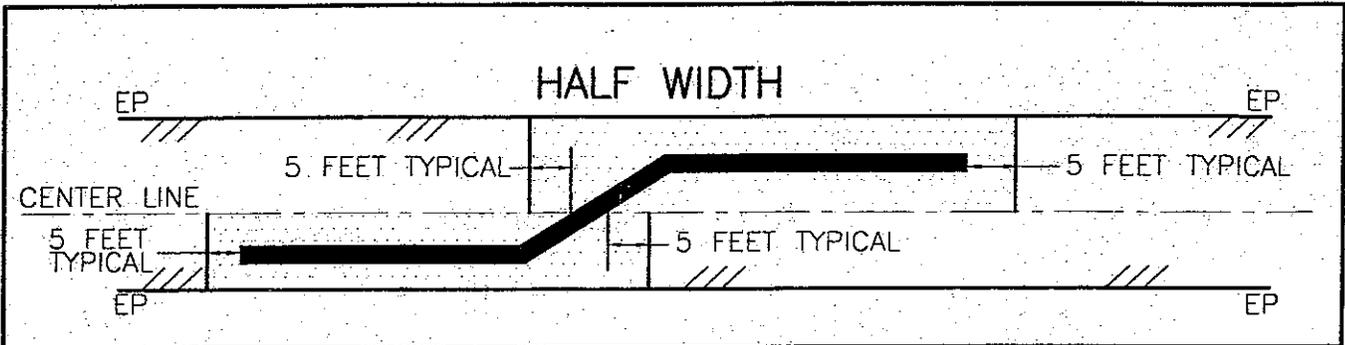
CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

NON T-CUT TRENCH

TRENCH DETAIL

STANDARD DWG.

C



**LEGEND:** TRENCH OVERLAY

**NOTE:**  
 OVERLAY TO EXTEND BEYOND TRENCH A MINIMUM 5' LONGITUDINALLY AND 1' TRANSVERSELY. PAVING JOINTS SHALL BE AT THE EDGES OF THE DRIVING LANES OR SHOULDERS.

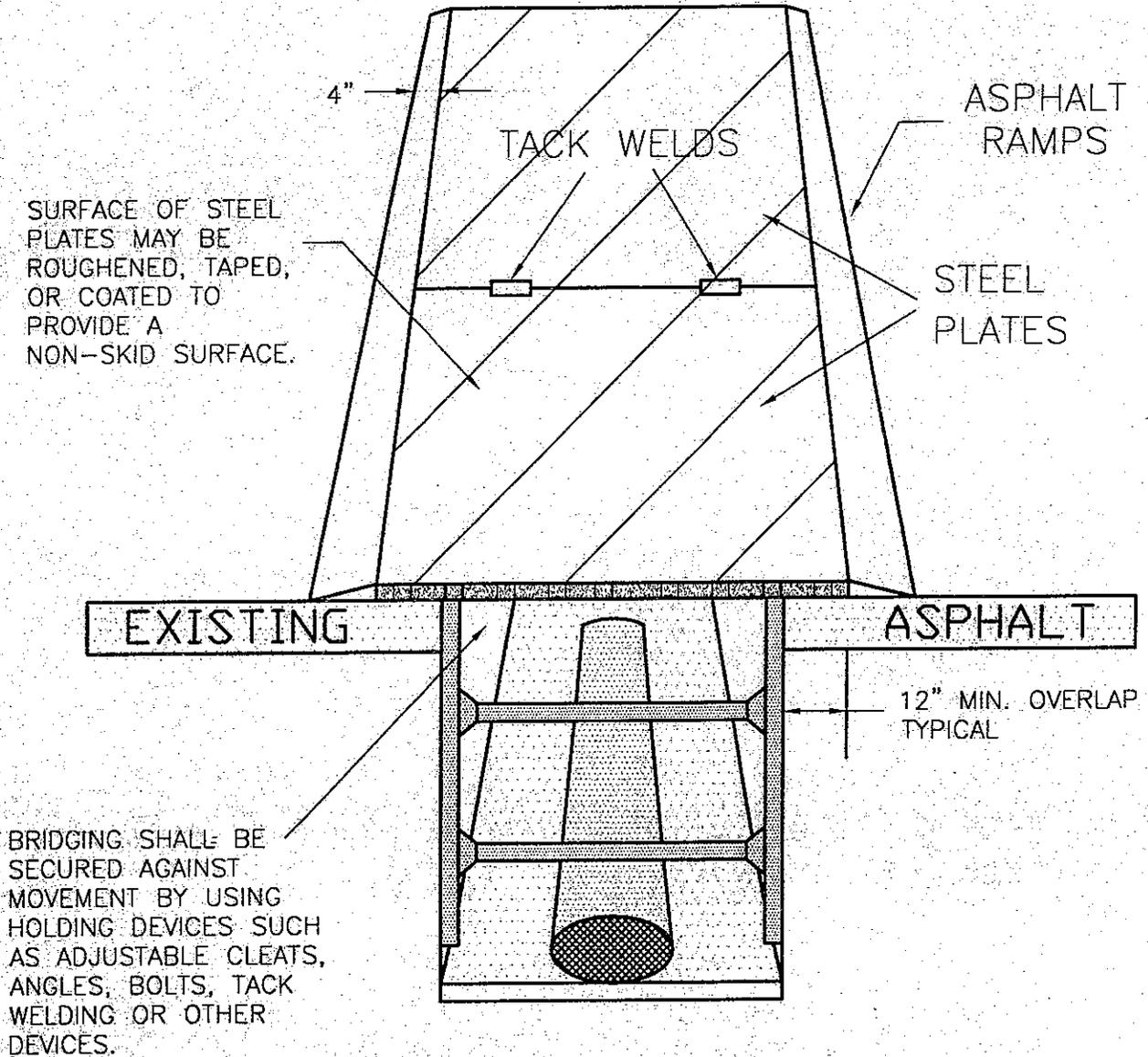
CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	
TRENCH OVERLAY	STANDARD DWG. <b>D</b>

WIDTH OF TRENCH

MINIMUM PLATE THICKNESS

1.0 FOOT TO 3.0 FOOT _____	1 INCH
4.0 FEET _____	1-1/4

SPANS GREATER THAN 4 FEET, A STRUCTURAL DESIGN SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER AND APPROVED BY DEPARTMENT PERSONNEL.



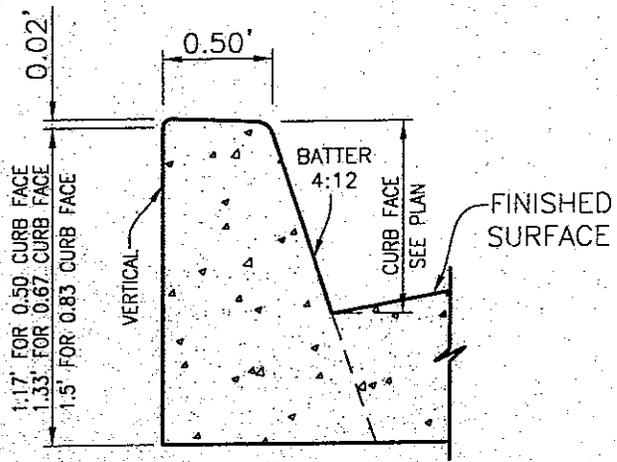
NOTE:  
TRENCH WALLS AND ADJACENT SOIL SHALL BE SUFFICIENTLY STABLE FOR THE USE OF THE ABOVE PLATE.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

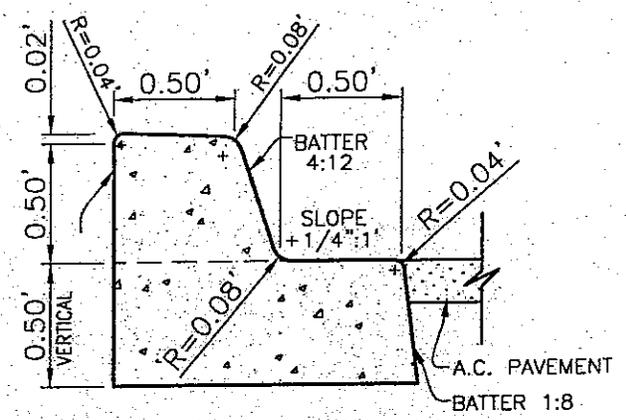
PLATE BRIDGING

STANDARD DWG.

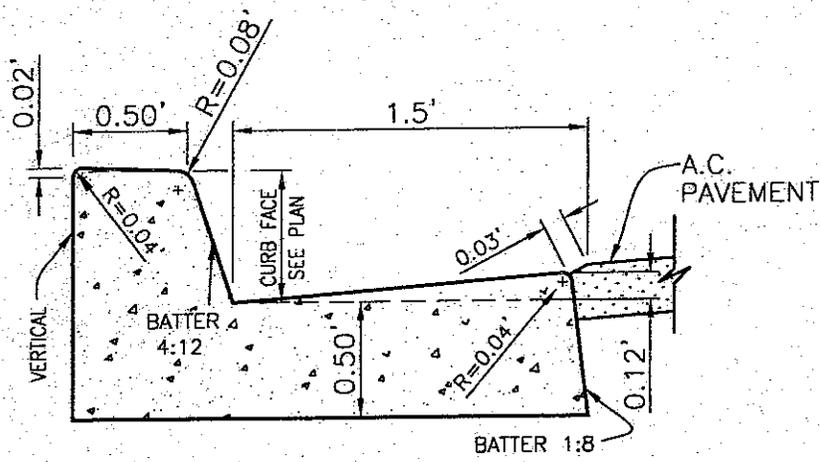
E



**"STREET & ALLEY RETURNS"  
CURB ONLY**



**MEDIAN CURB**

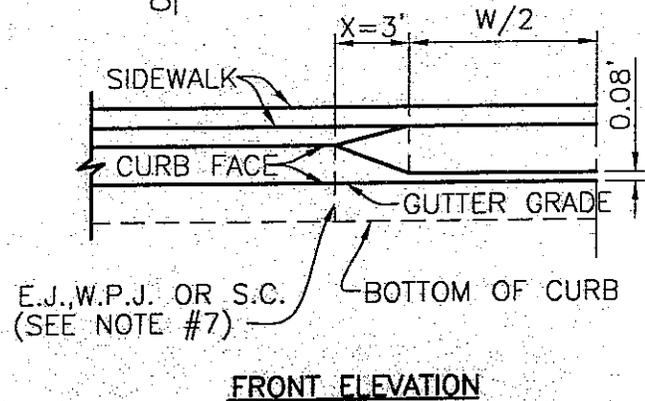
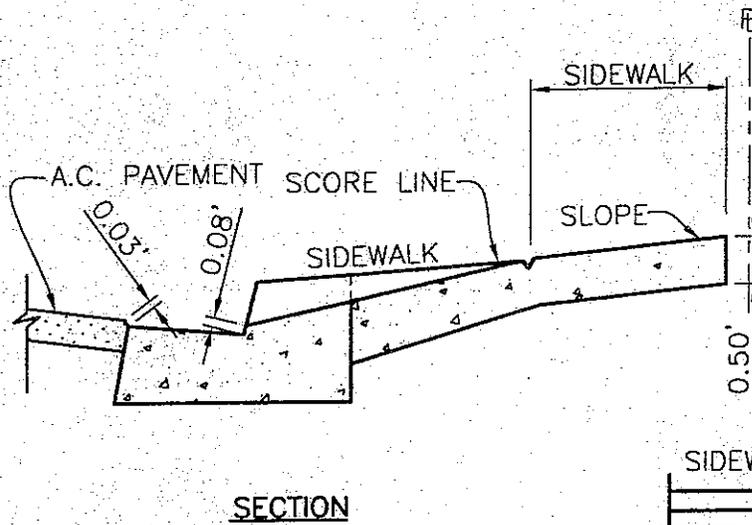
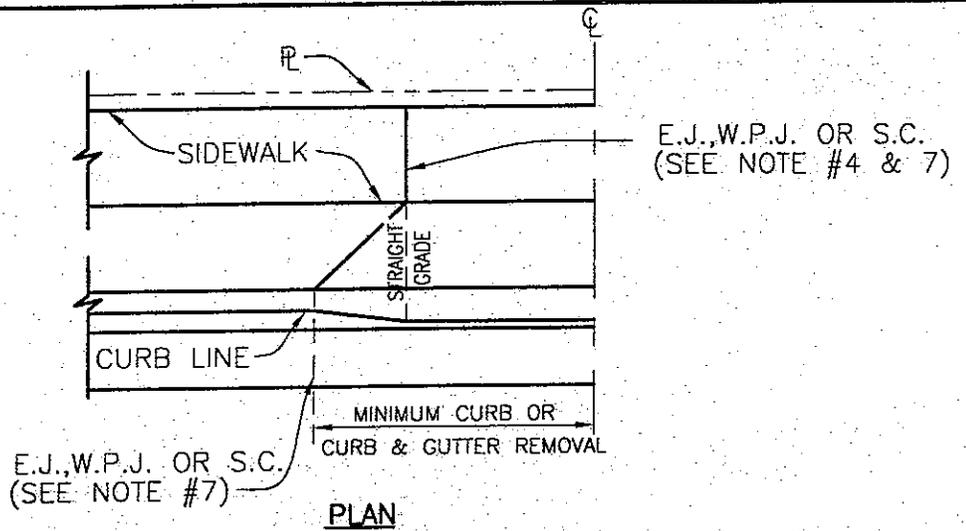


**CURB & GUTTER**

**NOTES:**

1. CLASS 520-C-2500 P.C.C. SHALL BE USED UNLESS OTHERWISE SPECIFIED.
2. CURB SHALL BE SCORED AT 5' INTERVALS TO CONFORM TO SIDEWALK SCORING, WITH EXPANSION JOINTS PLACED NOT TO EXCEED 60' O.C. & @ B.C., E.C. & B.C.R.'S AND WEAKENED PLANE JOINTS NOT TO EXCEED 15 FT. O.C.
3. IMMEDIATELY AFTER COMPLETION OF FINISHING, CONCRETE CURING COMPOUND SHALL BE APPLIED AS A FINE SPRAY TO ALL EXPOSED SURFACES INCLUDING THE BACK OF CURB.
4. CURB AND GUTTER SHALL NOT BE CONSTRUCTED MONOLITHIC WITH SIDEWALK AND DRIVE APPROACH.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	
CURB DETAILS	STANDARD DWG. <b>101</b>



NOTES:

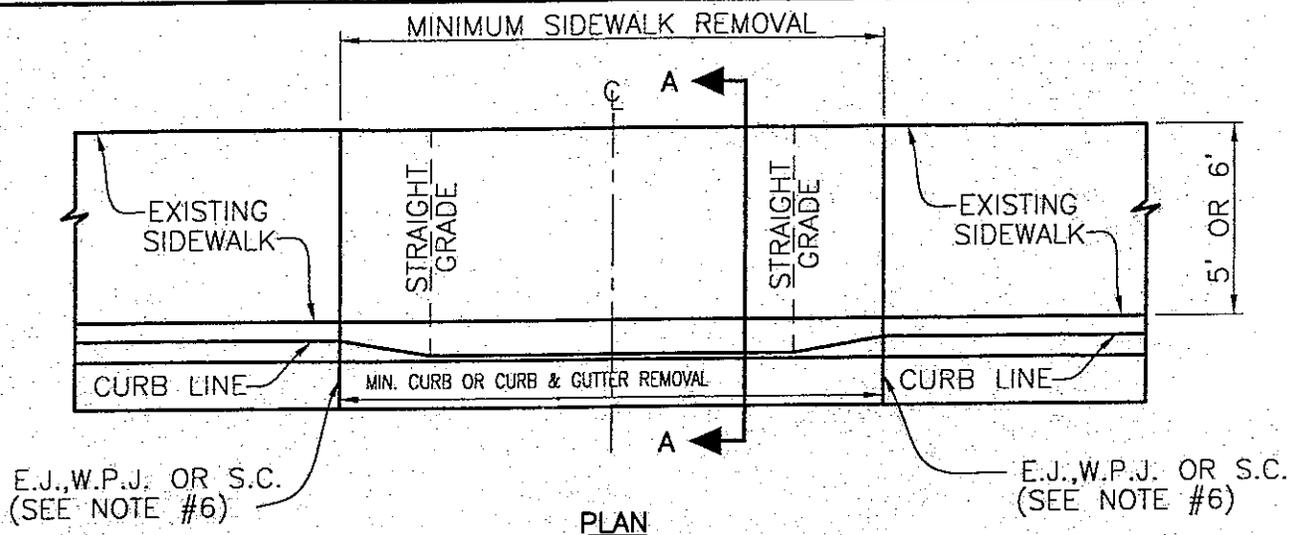
1. MINIMUM "W" SHALL BE 12'
2. MINIMUM FULL CURB BETWEEN DRIVEWAYS SHALL BE 1.50'
3. MINIMUM CLEARANCE TO FIRE HYDRANTS, LIGHT STANDARDS, POWER POLES AND OTHER OBSTRUCTIONS SHALL BE 1.50' FROM TOP OF "X"
4. WHERE SIDEWALKS EXIST, WITHIN THE LIMITS OF A RESIDENTIAL DRIVEWAY, THE WALK MAY REMAIN AT OPTION OF THE INSPECTOR IF IN GOOD CONDITION.
5. WHERE CURB & GUTTER EXIST, BOTH SHALL BE REMOVED AND REPLACED AS SHOWN FOR MINIMUM CURB REMOVAL.
6. ALL DRIVEWAYS SHALL BE CLASS 520-C-2500 P.C.C.
7. CURB AND WALK SHALL BE REMOVED BY SAW CUTTING OR IF WITHIN 5' TO A WEAKENED PLANE OR EXPANSION JOINT.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

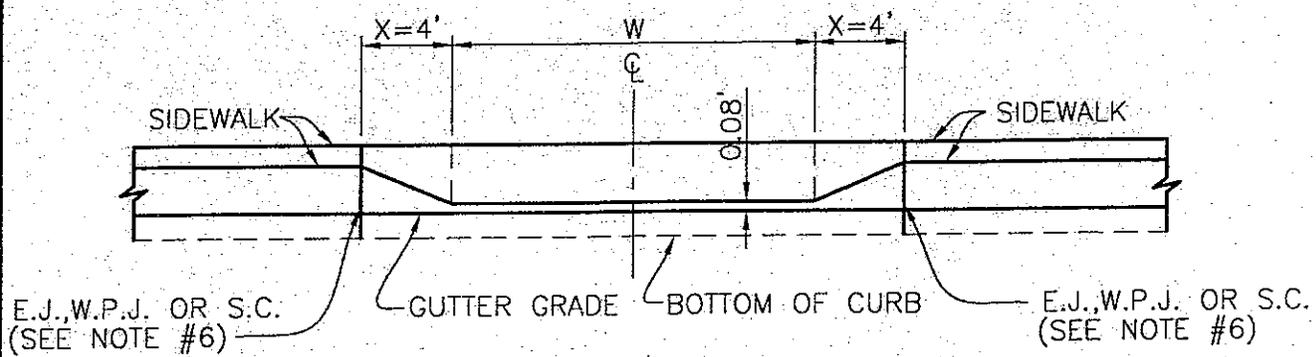
DRIVEWAY APPROACH - "SIDEWALK ADJACENT TO P"

STANDARD DWG.

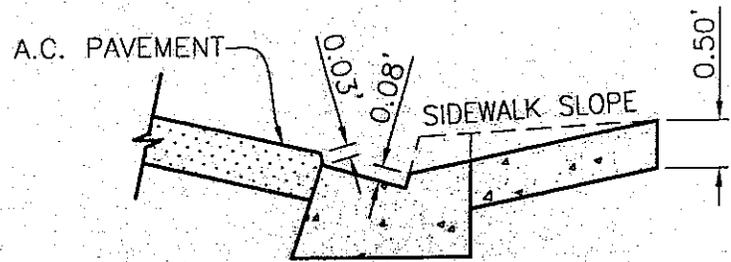
102



PLAN



FRONT ELEVATION

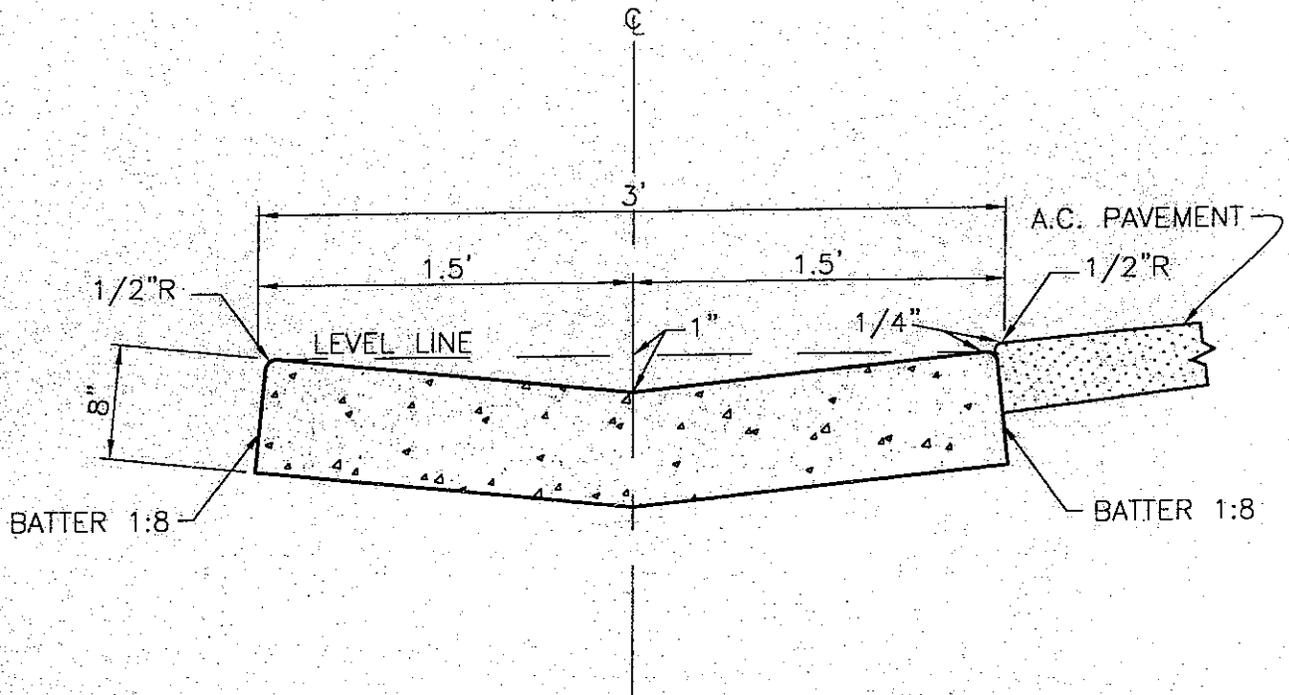


SECTION A-A

NOTES:

1. MINIMUM "W" SHALL BE 12'
2. MINIMUM FULL CURB BETWEEN DRIVEWAYS SHALL BE 1.50'
3. MINIMUM CLEARANCE TO FIRE HYDRANTS, LIGHT STANDARDS, POWER POLES AND OTHER OBSTRUCTIONS SHALL BE 1.50' FROM TOP OF "X".
4. ALL DRIVEWAYS SHALL BE CLASS 520-C-2500 P.C.C.
5. WHERE CURB & GUTTER EXIST, BOTH SHALL BE REMOVED AND REPLACED AS SHOWN FOR MINIMUM CURB REMOVAL.
6. CURB AND WALK SHALL BE REMOVED BY SAW CUTTING OR IF WITHIN 5' TO A WEAKENED PLANE OR EXPANSION JOINT.
7. CURB AND GUTTER SHALL NOT BE CONSTRUCTED MONOLITHIC WITH SIDEWALK OR DRIVE APPROACH.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	
DRIVEWAY APPROACH - "SIDEWALK ADJACENT TO CURB"	STANDARD DWG. "103"



NOTES:

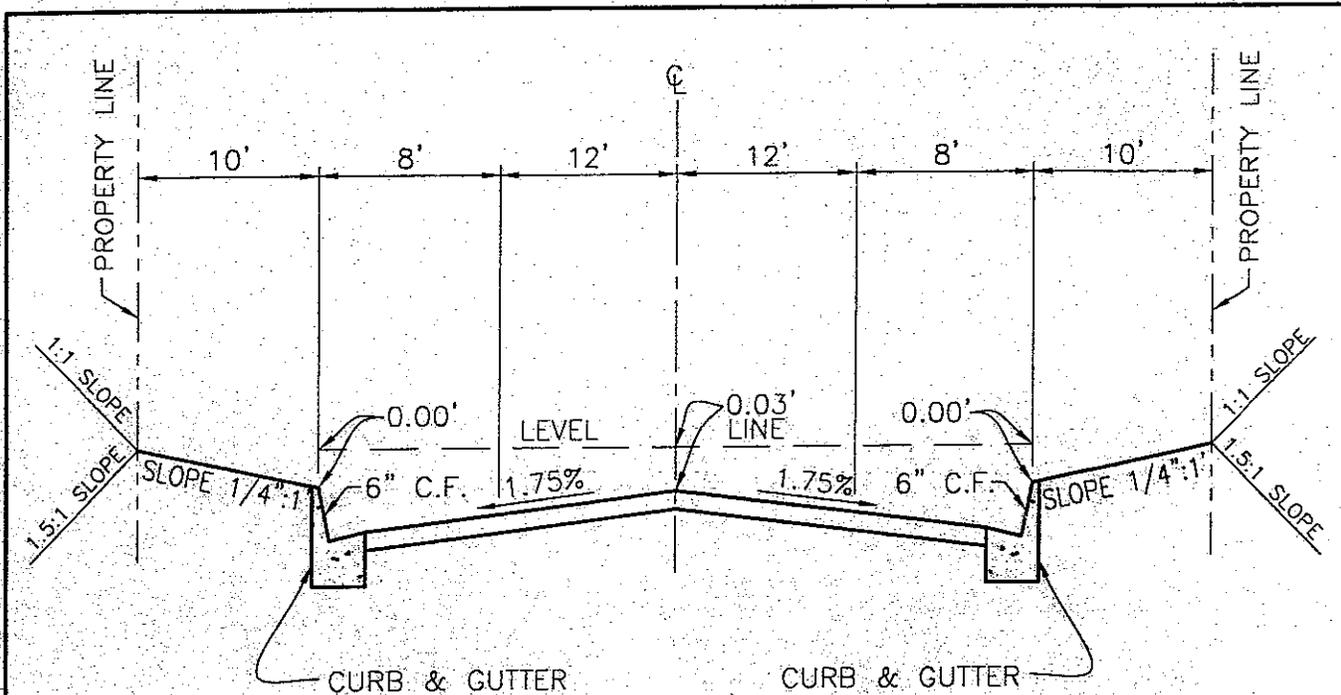
1. CLASS 520-C-2500 P.C.C. TO BE USED UNLESS OTHERWISE SPECIFIED.
2. EXPANSION JOINTS SHALL BE PLACED NOT TO EXCEED 60' O.C. & WEAKENED PLANE JOINTS NOT TO EXCEED 15' O.C.
3. IMMEDIATELY AFTER COMPLETION OF FINISHING, CONCRETE CURING COMPOUND SHALL BE APPLIED AS A FINE SPRAY TO ALL SURFACES.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

RIBBON GUTTER

STANDARD DWG.

106



MINIMUM A.C. PAVEMENT THICKNESS REQUIRMENTS

MAJOR STREET	6"
SECONDARY STREET	5"
COLLECTOR STREET	4"
INDUSTRIAL STREET	5"
LOCAL STREET	3"

NOTES:

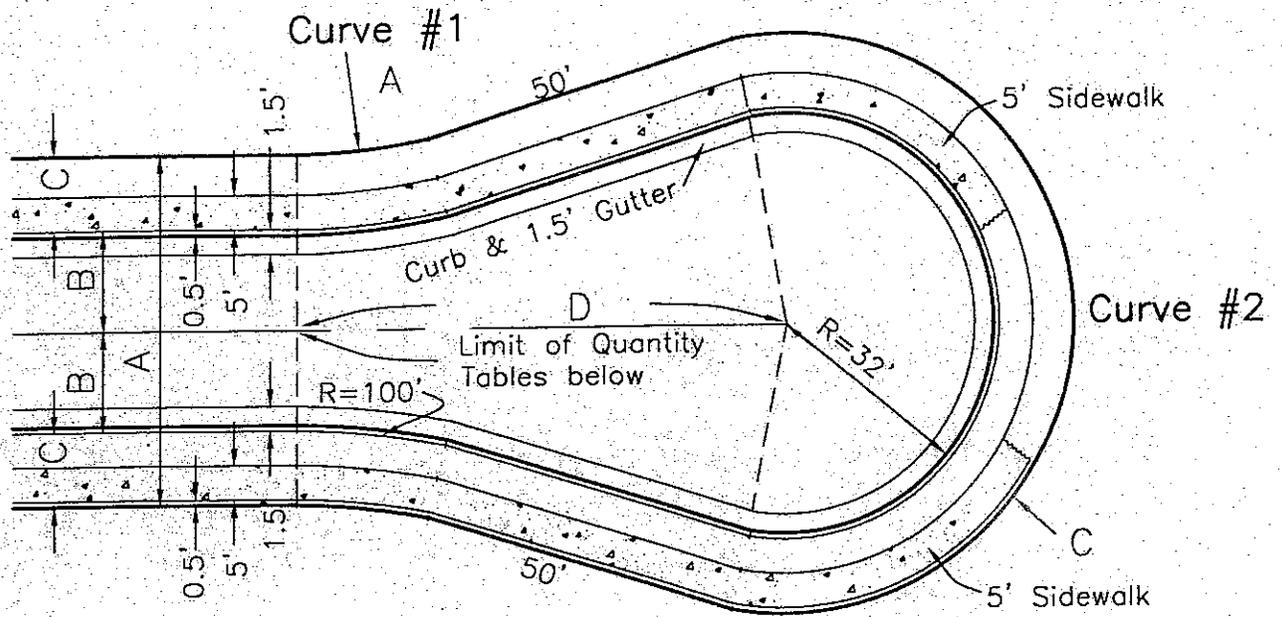
1. CROSS SECTIONS AND CURB LOCATIONS ARE TO BE DETERMINED BY THE CITY ENGINEER FOR ALL STREETS OTHER THAN 60' R/W.
2. A=36' USED ONLY WHEN IT IS NECESSARY TO MATCH EXISTING CONDITIONS.
3. SIDEWALK SHALL BE ADJACENT TO CURB UNLESS IT IS NECESSARY TO PROVIDE A PARKWAY TO MATCH EXISTING CONDITIONS, AS DETERMINED BY CITY ENGINEER.
4. THICKNESS OF PAVEMENT AND BASE SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON THE PLANS.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

STREET CROSS SECTION

STANDARD DWG.

107



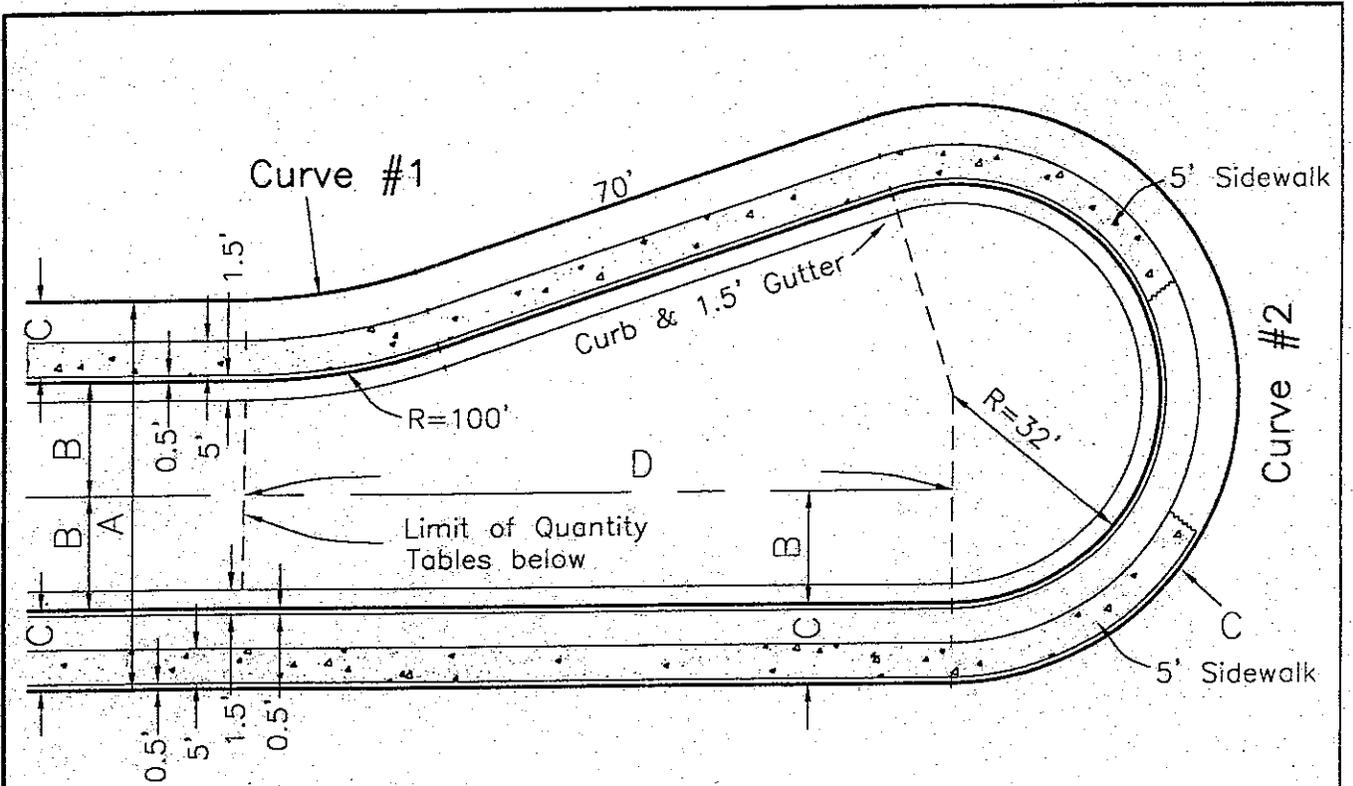
				Curve #1						Curve #2					
A	B	C	D	Δ	Curb			R			Δ	Curb		R	
					R	L	T	R	L	T		R	L		
50	18	7	77.46	12°32'11"	100	21.88	10.98	93	20.35	10.22	205°04'22"	32	114.53	39	139.59
60	18	12	77.46	12°32'11"	100	21.88	10.98	88	19.25	9.67	205°04'22"	32	114.53	44	157.48
60	20	10	74.32	11°01'35"	100	19.24	9.65	90	17.32	8.69	202°03'10"	32	112.85	42	148.11

A	B	Curb Length, ft.	Sidewalk, SQ. FT.		Pavement SQ. FT. 1.5' Gutter
			Adjacent to Curb	Adjacent to R	
50	18	258.3	1338.6	1354.3	5000.7
60	18	258.3	1338.6	1432.8	5000.7
60	20	251.3	1303.8	1366.6	5026.5

NOTES:

1. SIDEWALK LOCATION SHALL BE ADJACENT TO THE CURB UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER.
2. ALL STREET WIDTHS SHALL BE 60' UNLESS OTHERWISE APPROVED.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	STANDARD DWG.
STANDARD CUL-DE-SAC	109



				Curve #1						Curve #2					
A	B	C	D	$\Delta$	Curb			$R$			$\Delta$	Curb		$R$	
					R	L	T	R	L	T		R	L	R	L
50	18	7	107.28	17°57'04"	100	31.33	15.79	93	29.14	14.69	197°57'04"	32	110.56	39	134.74
60	18	12	107.28	17°57'04"	100	31.33	15.79	88	27.57	13.90	197°57'04"	32	110.56	44	152.02
60	20	10	103.25	15°46'26"	100	27.53	13.85	90	24.78	12.47	195°46'26"	32	109.34	42	143.51

A	B	Curb Length, ft.	Sidewalk, SQ. FT.		Pavement SQ. FT. 1.5' Gutter
			Adjacent to Curb	Adjacent to $R$	
50	18	319.2	1642.9	1658.7	6358.5
60	18	319.2	1642.9	1737.2	6358.5
60	20	310.1	1597.5	1660.5	6411.1

NOTES:

1. SIDEWALK LOCATION SHALL BE ADJACENT TO THE CURB UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER.
2. ALL STREET WIDTHS SHALL BE 60' UNLESS OTHERWISE APPROVED.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT		STANDARD DWG.
OFFSET CUL-DE-SAC		110



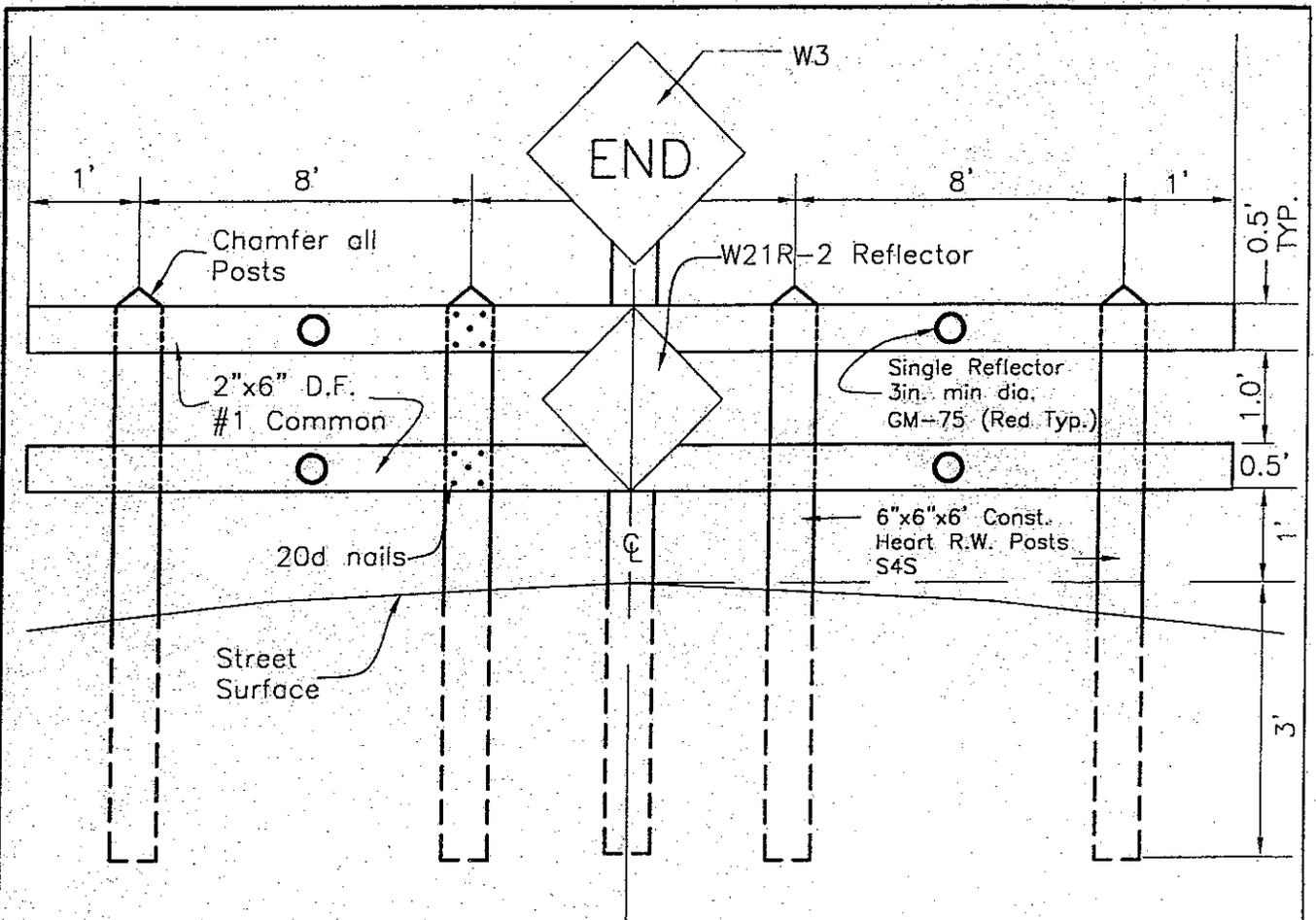


TABLE OF PANELS FOR VARIOUS ROADWAY WIDTHS

8' sections shall be added or deleted to give the following widths:

Width of Roadway	No. of 8' Sections	Total Length of Panels
20' alley	2	18'
36'	3	26'
40'	4	34'
44'	4	34'
64'	7	58'

NOTES:

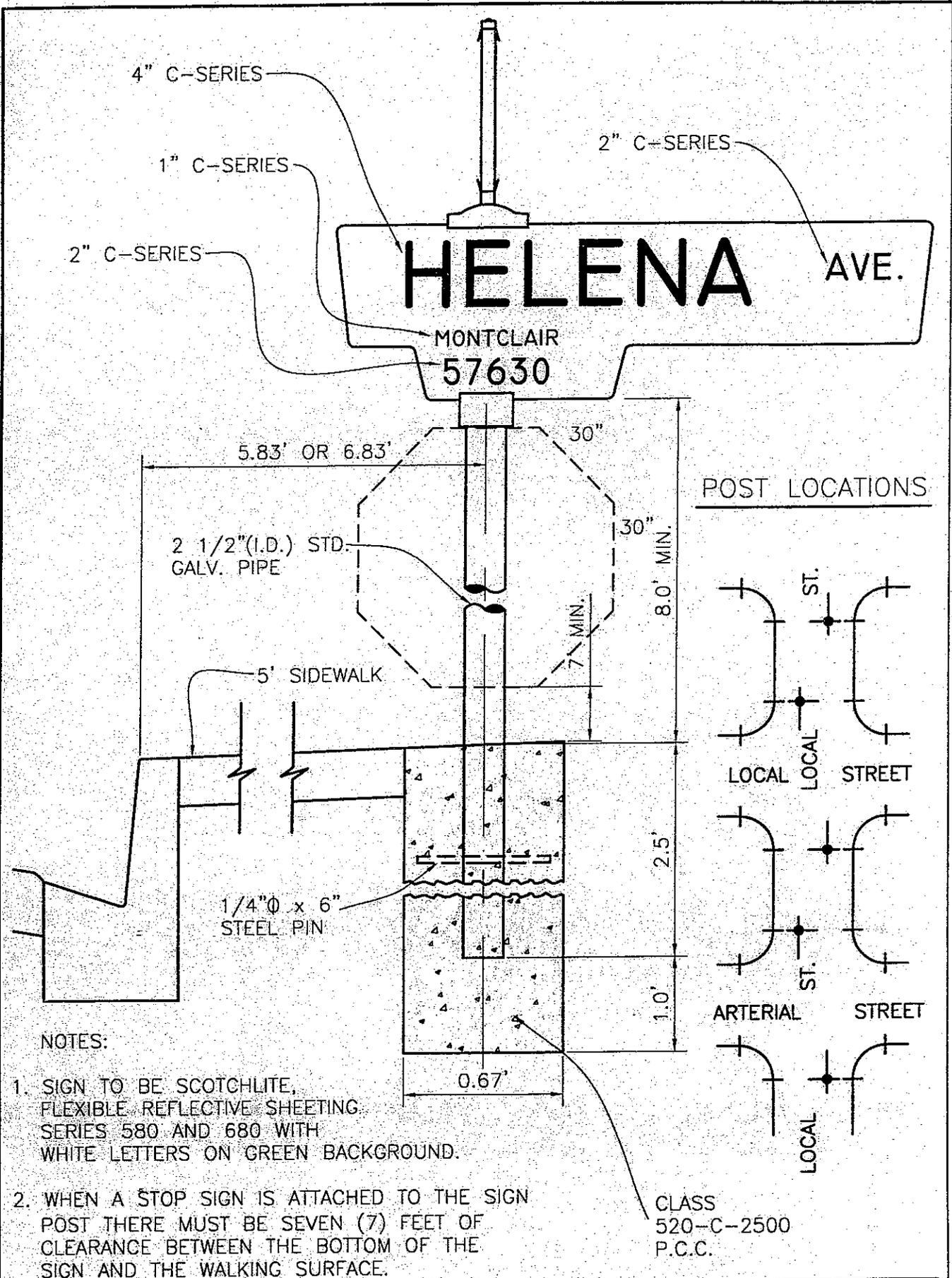
1. W21R-2 REFLECTOR IS TO BE A 1.5'x1.5' SIGN, AND IS TO BE BOLTED ON THE CENTER OF THE BARRICADE AS SHOWN.
2. SIGNS TO BE W31 & W21R-2 OR APPROVED EQUAL.
3. ALL WOOD ASSEMBLY IS TO BE PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF WHITE EXTERIOR PAINT.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

BARRICADE

STANDARD DWG.

113

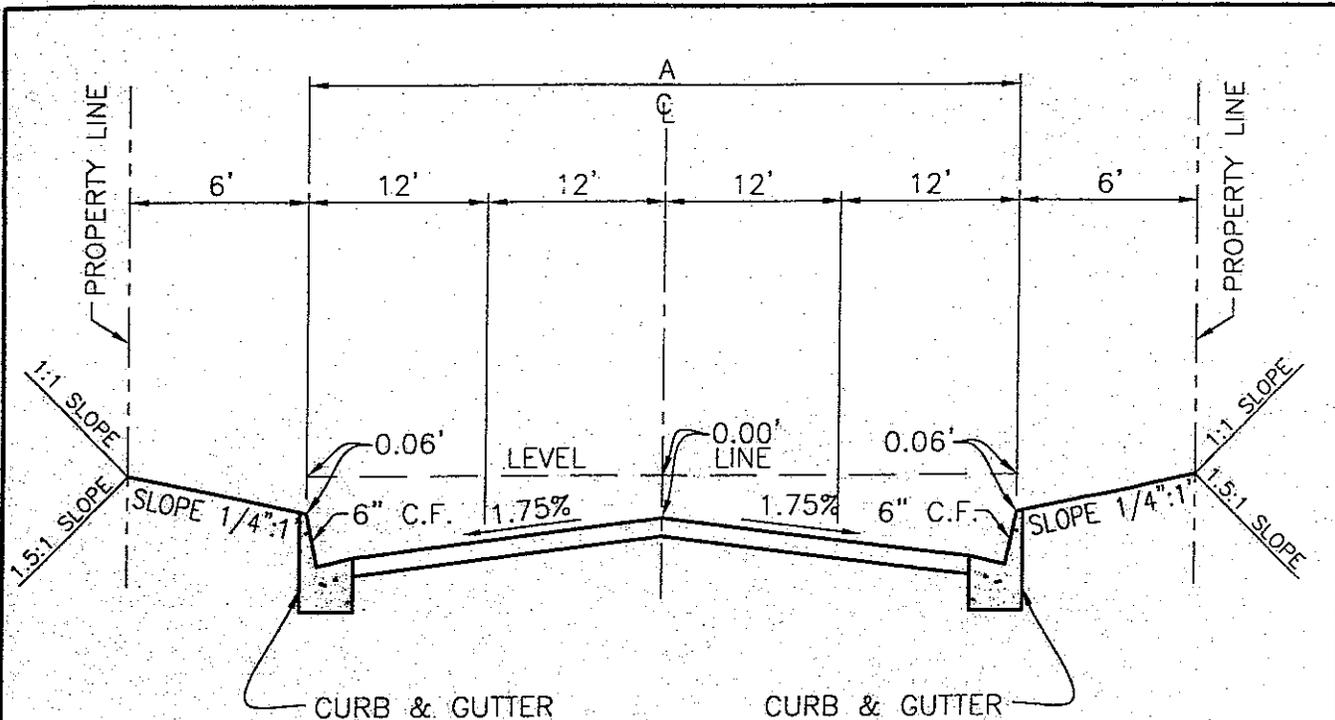


NOTES:

1. SIGN TO BE SCOTCHLITE, FLEXIBLE REFLECTIVE SHEETING. SERIES 580 AND 680 WITH WHITE LETTERS ON GREEN BACKGROUND.
2. WHEN A STOP SIGN IS ATTACHED TO THE SIGN POST THERE MUST BE SEVEN (7) FEET OF CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND THE WALKING SURFACE.

CLASS  
520-C-2500  
P.C.C.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	
STREET SIGN	STANDARD DWG. <b>116</b>



NOTES:

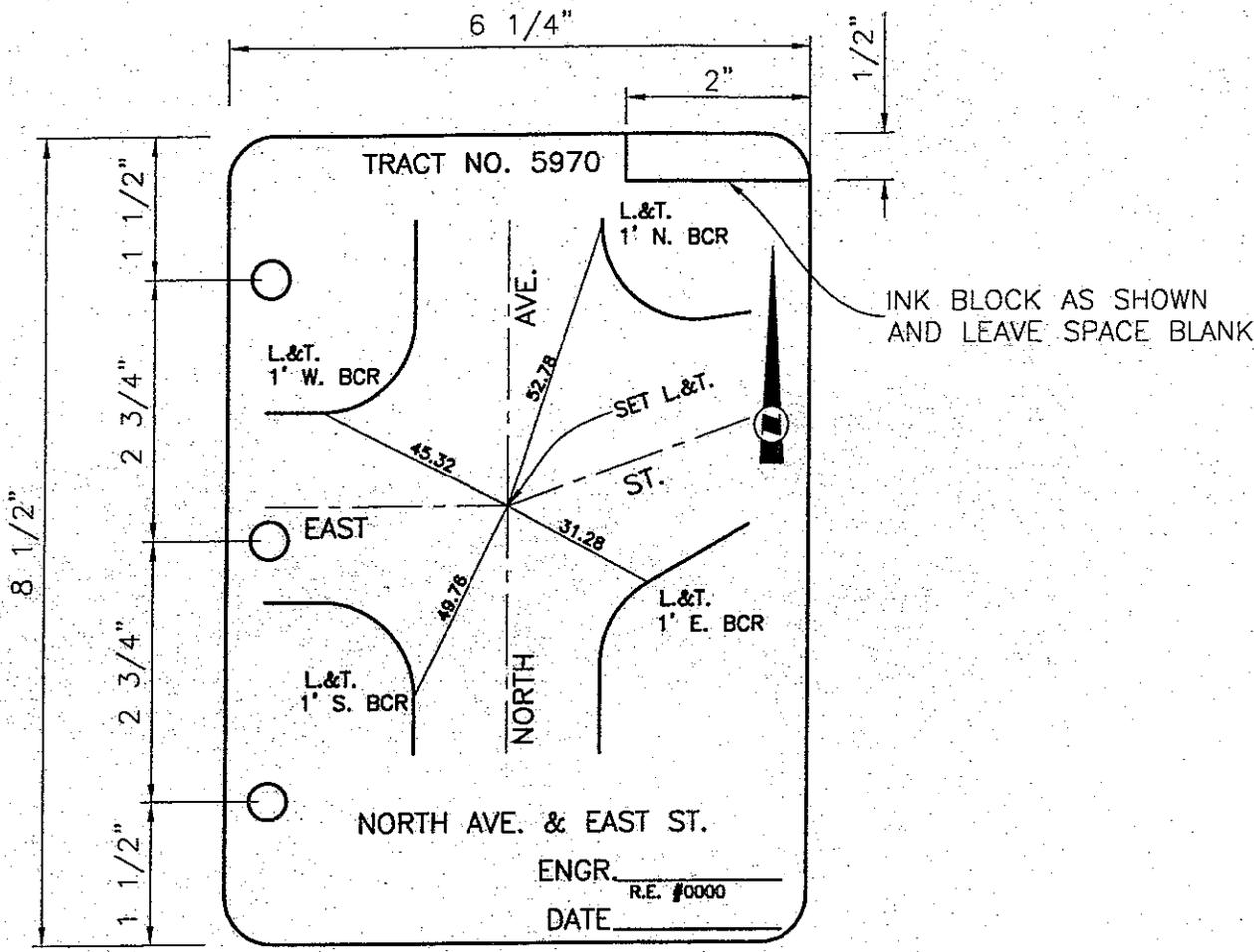
1. CROSS SECTIONS AND CURB LOCATIONS ARE TO BE DETERMINED BY THE CITY ENGINEER FOR ALL STREETS OTHER THAN 60' R/W.
2. A=36' OR A=40' USED ONLY WHEN IT IS NECESSARY TO MATCH EXISTING CONDITIONS.
3. SIDEWALK SHALL BE ADJACENT TO CURB UNLESS IT IS NECESSARY TO PROVIDE A PARKWAY TO MATCH EXISTING CONDITIONS, AS DETERMINED BY CITY ENGINEER.
4. THICKNESS OF PAVEMENT AND BASE SHALL DETERMINED FROM SOILS TESTS AND SO INDICATED ON THE PLANS. MINIMUM THICKNESS SHALL BE 5".

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

INDUSTRIAL STREET CROSS SECTION

STANDARD DWG.

117

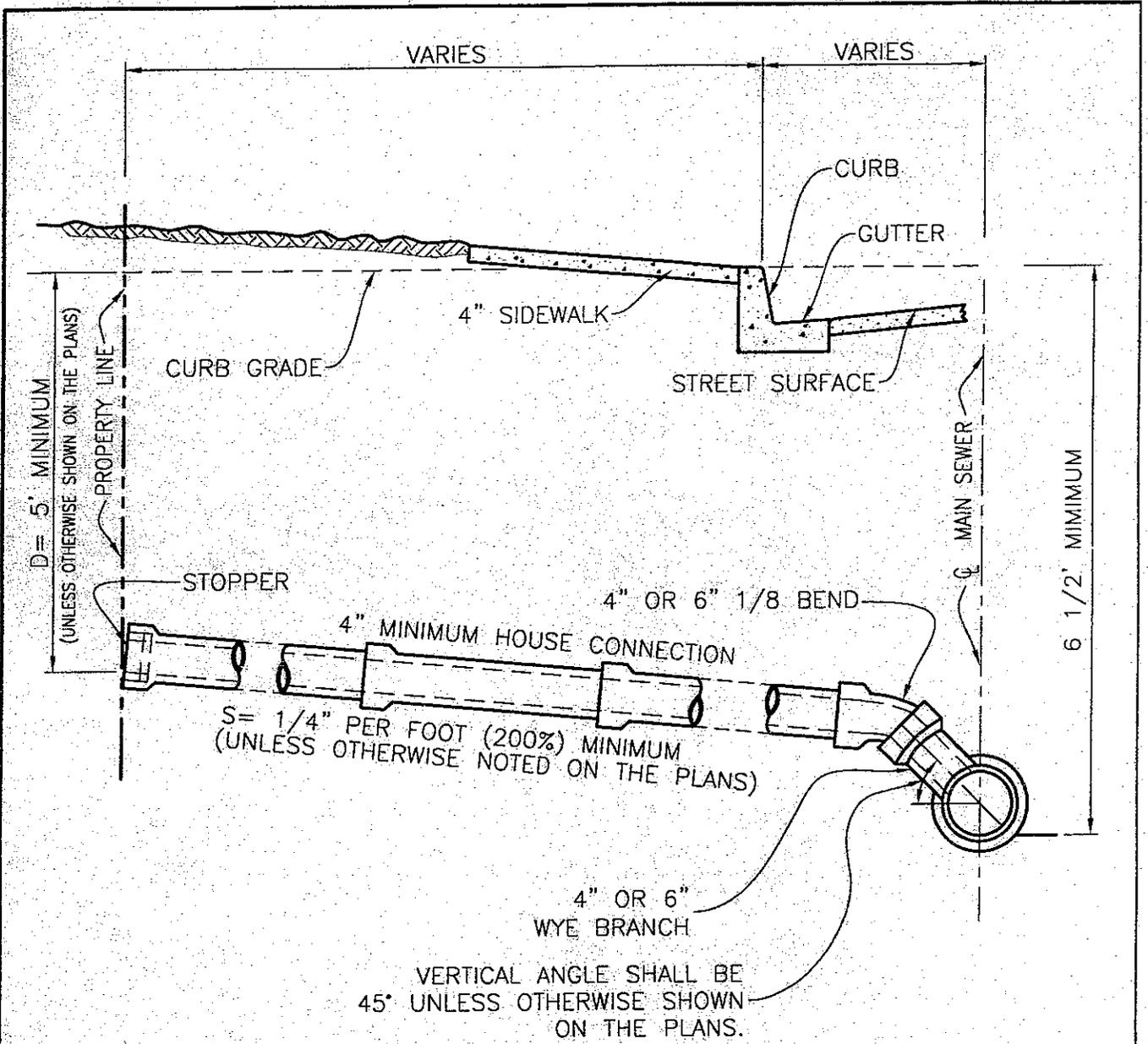


1/2 ACTUAL SIZE

NOTES:

1. REFERENCE POINTS SHALL BE L.&T. 'S IN SIDEWALKS OR IN TANGENT PORTION OF THE CURB AND A MINIMUM OF 3 REFERENCE POINTS FOR EACH INTERSECTION.
2. CENTER LINE MONUMENTS SHALL BE:
  - A. CEMENT CONCRETE - LEAD & TACK.
  - B. MACADAM OR PLANT MIX - 6" R.R. SPIKE.
  - C. OIL & ROCK, GRAVELLED & OTHER - 1" I.P. 12" DOWN.
  - D. WHERE MANHOLES EXIST - 4 PUNCH MARKS ON M.H. RING.
3. TANGENT TIES AND POINTS ON C PRODS ARE PREFERRED.
4. ONLY ONE STREET INTERSECTION SHALL BE SHOWN ON EACH SHEET.
5. SHEETS SHALL BE OF THE SIZE SHOWN AND SHALL BE LIETZ NO. 987-10 TOPFLIGHT OR OF EQUAL QUALITY TRACING PAPER.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT	
CENTER LINE TIE NOTES	STANDARD DWG. <b>122</b>

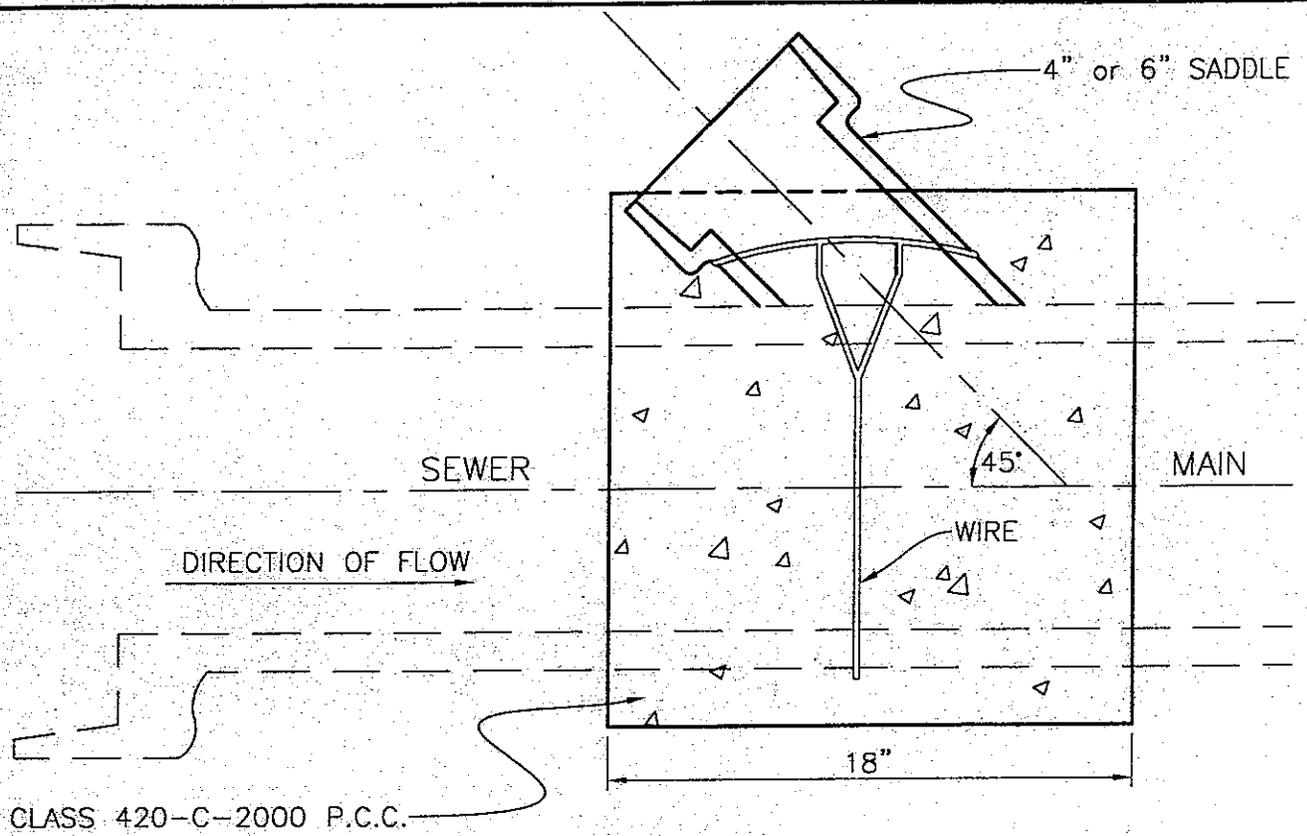


CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

RESIDENTIAL LATERAL

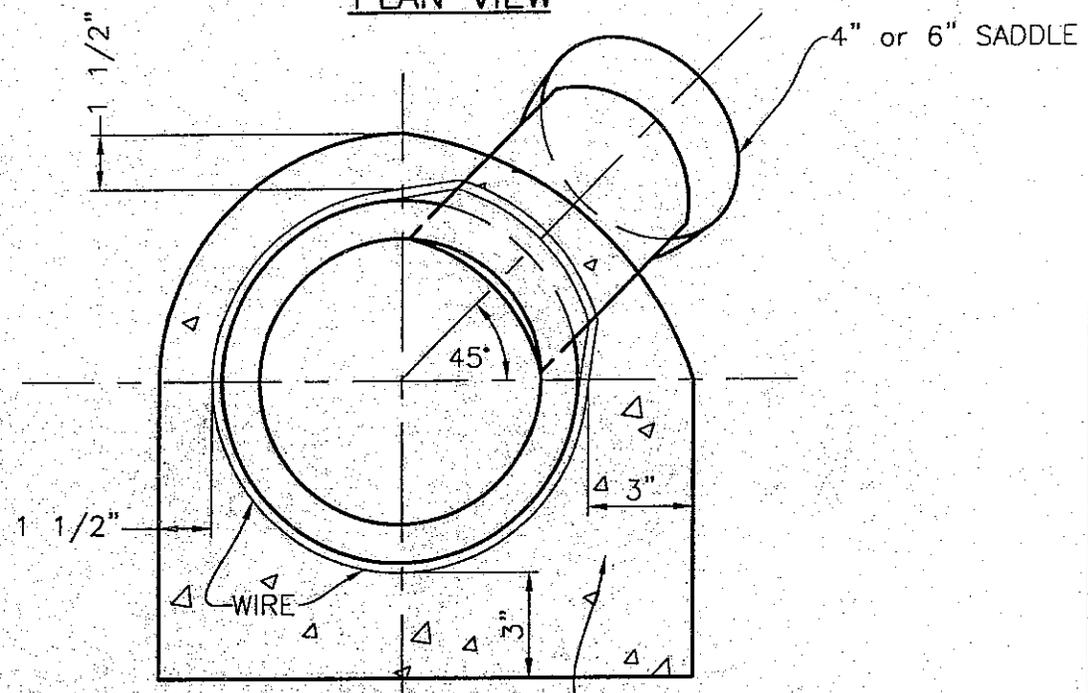
STANDARD DWG.

204



CLASS 420-C-2000 P.C.C.

PLAN VIEW



CLASS 420-C-2000 P.C.C.

SECTION

NOTES:

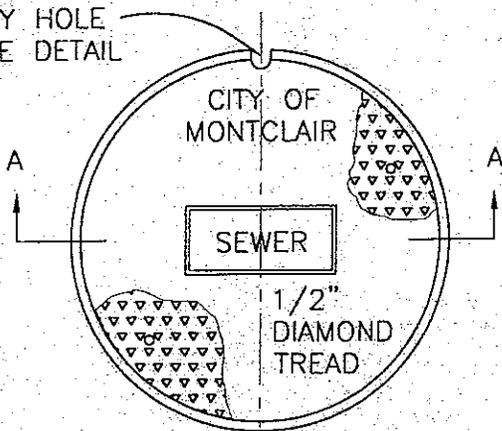
1. INSPECTION MUST BE OBTAINED FOR SADDLE PRIOR TO PLACING P.C.C. AND AGAIN BEFORE BACKFILLING OVER LATERAL.

2. TIE WIRE SHALL BE 12 GA. GALVANIZED WIRE.

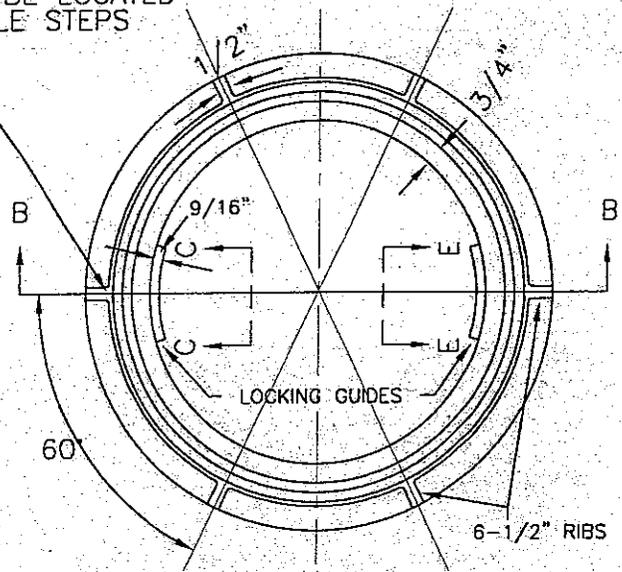
CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT		STANDARD DWG.
SEWER SADDLE		206

NOTE:  $\odot$  OF LOCKING GUIDES TO BE LOCATED AT 60° TO  $\odot$  OF MANHOLE STEPS

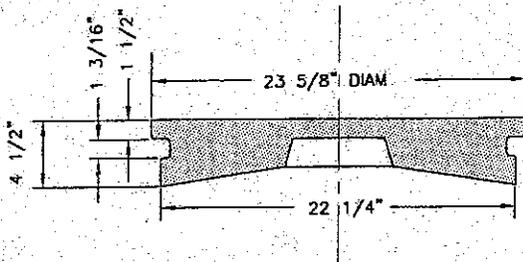
PRY HOLE  
SEE DETAIL



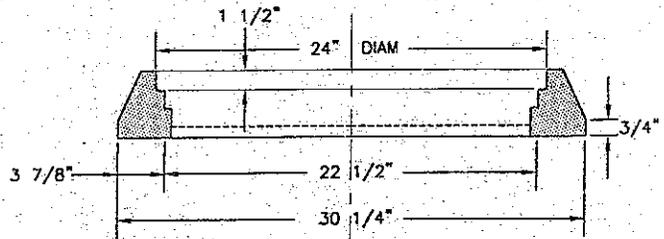
PLAN OF COVER  
TOP VIEW



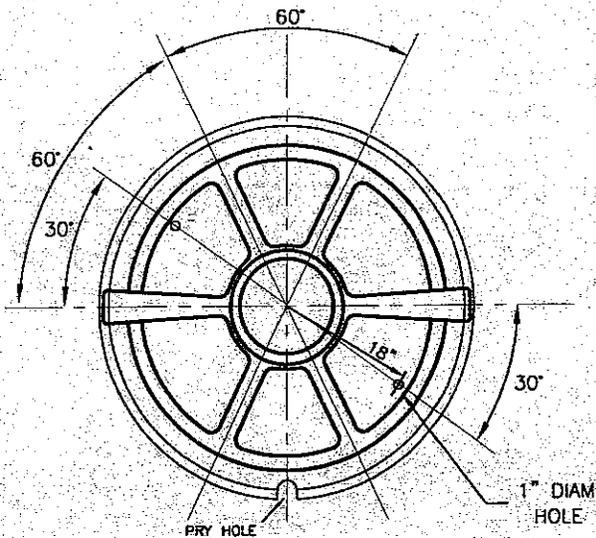
PLAN OF FRAME



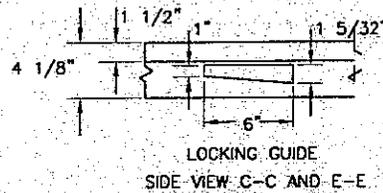
SECTIONAL ELEVATION A-A



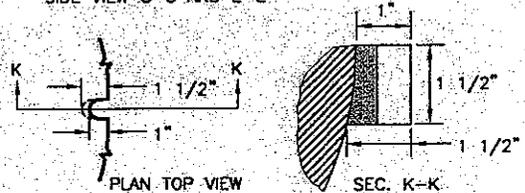
SECTIONAL ELEVATION B-B



PLAN OF COVER  
BOTTOM VIEW



LOCKING GUIDE  
SIDE VIEW C-C AND E-E



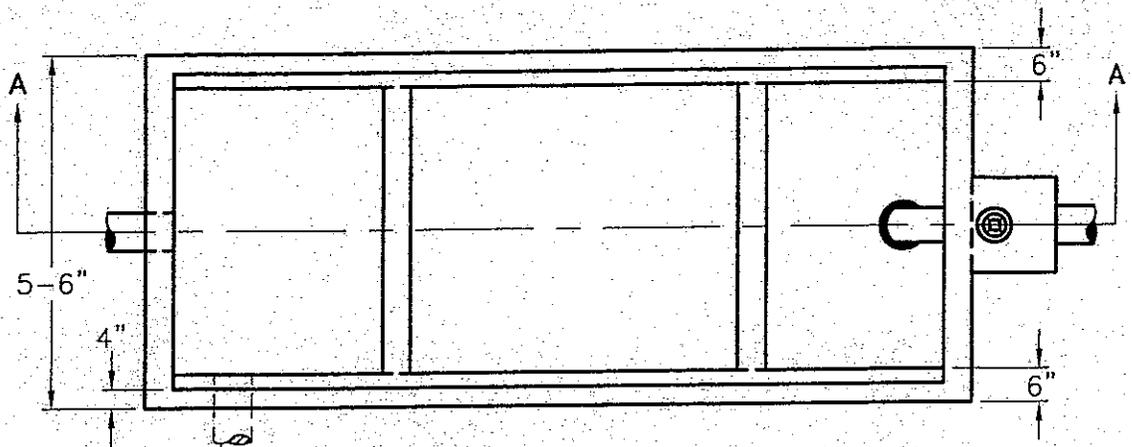
NOTE:  
MACHINE SEATS AND GRIND LUGS SMOOTH.  
PERIMETER OF COVER SHALL BE GROUND SMOOTH.  
DIAMETER TOLERANCE  $\pm 1/16$ "  
WEIGHT OF MANHOLE FRAME - 150 LBS.  
WEIGHT OF MANHOLE COVER - 215 LBS.  
THE CAST IRON USED SHALL HAVE A TENSILE STRENGTH OF 30,000 LBS. PER SQ. IN.  
ALHAMBRA FOUNDRY NO. A 1175 OR APEX #X-107

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

MANHOLE FRAME AND COVER

STANDARD DWG.

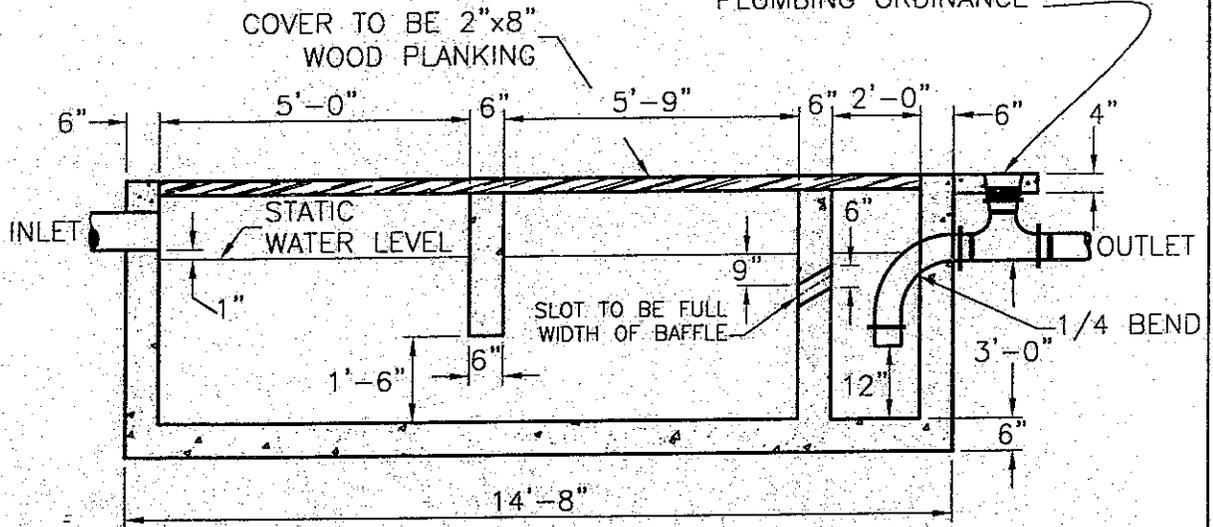
210



PLAN

OPTIONAL SIDE INLET

ALL PIPE FITTINGS ARE TO BE CAST IRON CLEANOUT AND VENT AS REQUIRED BY PLUMBING ORDINANCE



SECTION A-A

NOTES:

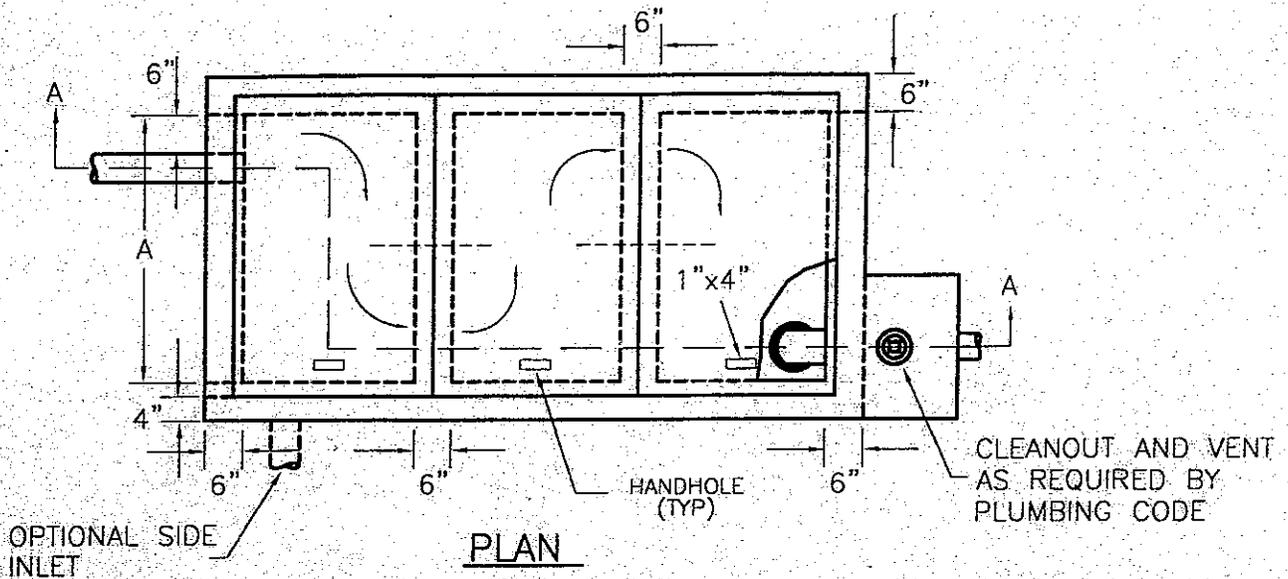
THE APPROVAL OF THE CITY ENGINEER MUST BE OBTAINED BEFORE INSTALLATION. THE INTERCEPTOR IS TO BE CONSTRUCTED OF CLASS B PORTLAND CEMENT CONCRETE. INTERCEPTORS EXCEEDING 6' -6" IN DEPTH MUST BE CONSTRUCTED OF REINFORCED CONCRETE. IF INSTALLED INSIDE OF BUILDING, THE TOP OF INTERCEPTOR MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTES ENTER THROUGH THE INLET PIPE ONLY. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR TO EXCLUDE RAIN WATER FROM THE PUBLIC SEWERS.

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

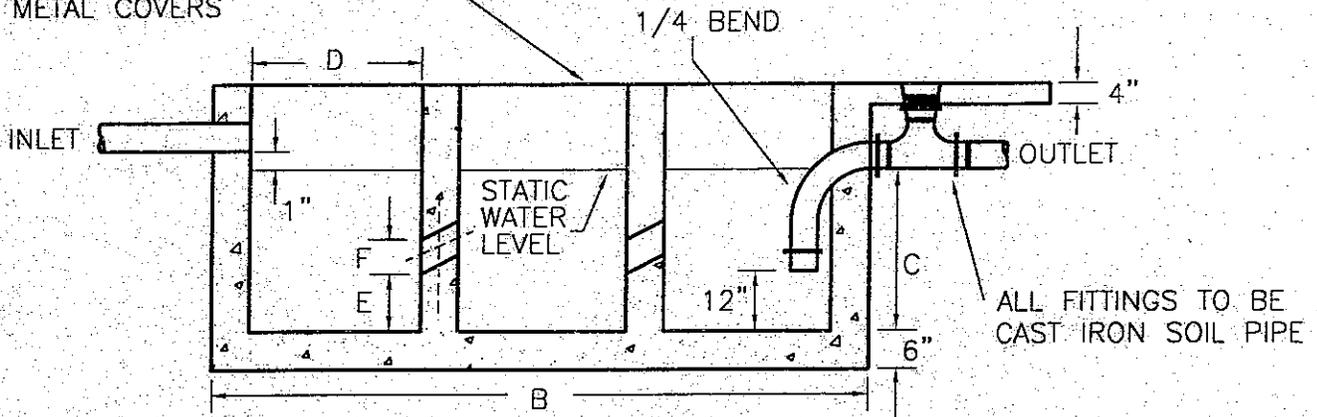
SAND INTERCEPTOR

STANDARD DWG.

212



2" x 8" WOOD PLANKING  
MAY BE SUBSTITUTED FOR  
METAL COVERS



SECTION A-A

**NOTES:**

THE APPROVAL OF THE CITY ENGINEER MUST BE OBTAINED BEFORE INSTALLATION. THE INTERCEPTOR IS TO BE CONSTRUCTED OF CLASS B PORTLAND CEMENT CONCRETE.

INTERCEPTORS EXCEEDING 6'-6" IN DEPTH MUST BE CONSTRUCTED OF REINFORCED CONCRETE.

IF INSTALLED INSIDE OF BUILDING THE TOP OF INTERCEPTOR MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTES ENTER THROUGH THE INLET PIPE ONLY.

ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR TO EXCLUDE RAIN WATER FROM THE PUBLIC SEWERS.

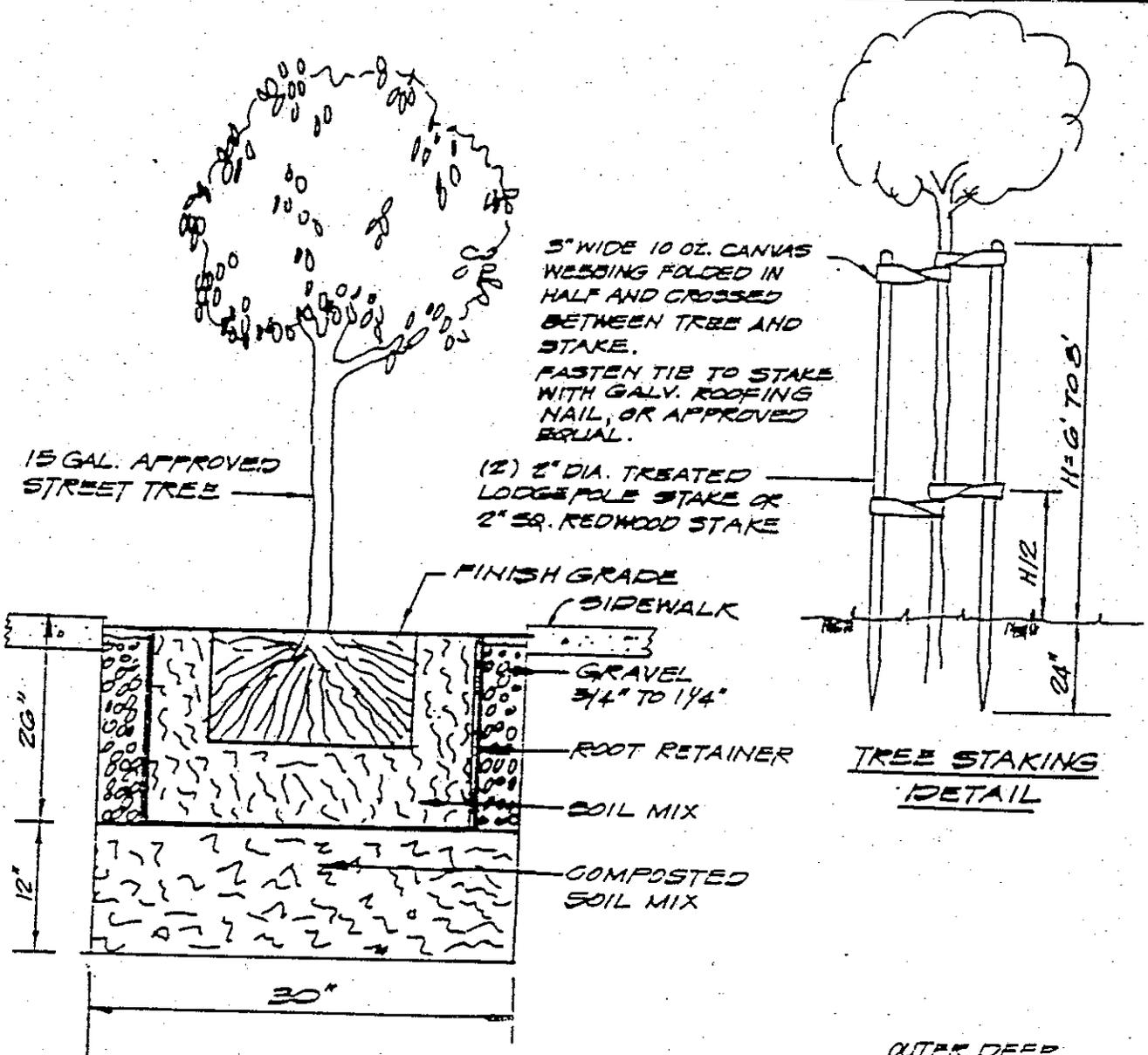
CAPACITY GALLONS	DIMENSIONS							COVER SIZE	CAPACITY COVERS	PIPE SIZE
	A	B	C	D	E	F	G			
338	3'-0"	9'-6"	2'-0"	2'-6"	1'-0"	0'-3"	1'-6"	2'-10" x 3'-4"	1/4" STEEL PLATE	4"
510	3'-0"	9'-6"	3'-0"	2'-6"	1'-6"	0'-4.5"	1'-6"	2'-10" x 3'-4"	1/4" STEEL PLATE	6"
866	3'-6"	10'-3"	4'-0"	2'-9"	2'-0"	0'-6"	1'-9"	3'-1" x 3'-10"	3/8" ALUM. PLATE	6"
1260	4'-0"	12'-6"	4'-0"	3'-6"	2'-0"	0'-6"	2'-0"	3'-10" x 4'-4"	3/8" ALUM. PLATE	6"

CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

SAND AND GREASE INTERCEPTOR

STANDARD DWG.

213



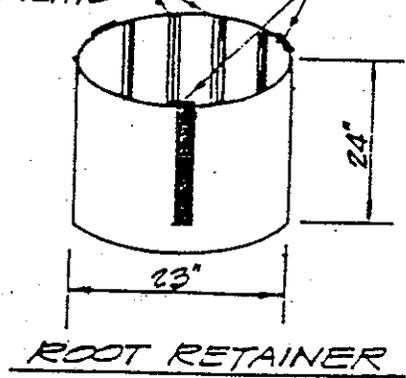
5" WIDE 10 OZ. CANVAS WEAVING FOLDED IN HALF AND CROSSED BETWEEN TREE AND STAKE.  
 FASTEN TIE TO STAKE WITH GALV. ROOFING NAIL, OR APPROVED EQUAL.

(2) 2" DIA. TREATED LODGEPOLE STAKE OR 2" SQ. REDWOOD STAKE

TREE STAKING DETAIL

NOTE  
 ALL NEW STREET TREES SHALL BE PLANTED TO THE MAXIMUM WIDTH OF THE RIGHT-OF-WAY AND THE LOCATION SHALL BE APPROVED BY THE CITY ENGINEER.

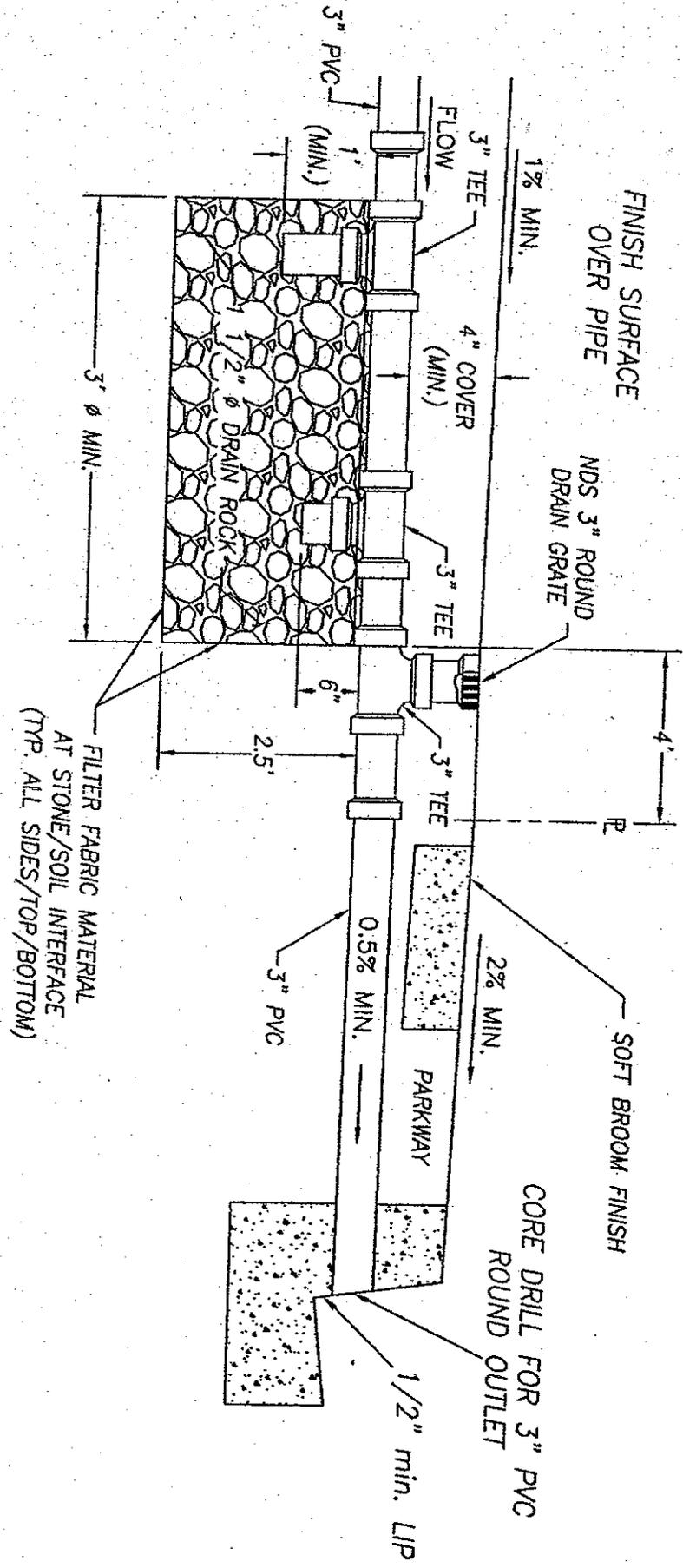
INNER DEEP WATERING VENTS  
 OUTER DEEP WATERING VENTS



ROOT RETAINER

CITY OF MONTCLAIR			
STANDARD TREE WELL WITH TREE			
OWN. BY 23 HR	CKD. BY DG	APPROVED BY [Signature]	DATE 4/1/14

**NOTE:**  
 A CONSTRUCTION PERMIT MUST BE OBTAINED FOR ANY WORK DONE IN THE CITY RIGHT OF WAY. PERMITS ARE ISSUED THROUGH THE ENGINEERING DEPARTMENT. CALL (909) 625-9440 FOR ADDITIONAL INFORMATION.



**NOTE:**  
 REMOVE SIDEWALK PANEL FROM JOINT TO JOINT OR SCORE LINES BEFORE CORING CURB.  
 CONCRETE SHALL BE CLASS 520-C-2500

CITY OF MONTCLAIR  
 WOMP GRAVEL FILTER DETAIL  
 N.T.S.

REvised 11-01-06  
 SHEET 1 OF 1

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Grading Guidelines .....	1
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# CITY OF MONTCLAIR

## GRADING GUIDELINES

All grading shall be designed and performed in accordance with the requirements of Appendix J of the Uniform Building Code – 2007 Edition – and these guidelines. Grading plans shall be prepared by or under the direction of a Licensed Civil Engineer. Unless otherwise exempted by the Uniform Building Code or the City of Montclair Municipal Code, no grading shall be undertaken without first obtaining a grading permit from the City of Montclair Building Official. A grading permit will not be issued unless and until a grading plan has been approved by the City Engineer.

General Conditions – In preparing a grading plan the designer shall follow normally accepted standards and practices and exercise good engineering judgment. No grading shall be permitted or performed that would:

- Block drainage from an adjacent site tributary to the site in question,
- Divert drainage onto an adjacent site,
- Convert sheet flow to an adjacent site to concentrated flow,
- Increase runoff (peak flow or volume) to an adjacent site, or
- Create a flood hazard to either the site in question or any adjacent sites.

Cross lot drainage is to be avoided.

**Plan Requirements** – The standard size plan sheet used by the City is 24" by 36". Once approved, three copies of plans (blue lines or black lines) shall be provided to the City for signature. One copy will be provided to the contractor at the time the grading permit is issued. The second copy will be given to the Public Works Department for monitoring erosion control requirements. The third copy will be retained by the Building Division for inspection purposes. Only the three wet-signed copies shall be considered the approved grading plans. Any copies made from these prints are not considered official. A set of approved plans shall be on the job site at all times.

Any proposed changes to the approved grading plan must be submitted to the City Engineer for review prior to implementation. If approved, three revised sets of drawings shall be submitted to the Building Official for signature. Upon completion of grading, the engineer of record shall submit a certification to the Building Official indicating that the work was done in accordance with the approved plan. The engineer of record shall also prepare an "as-built" record drawing and submit an electronic version of it to the Building Division. Electronic plans shall be submitted in accordance with the Building Division's "Electronic Archiving Policy."

A title block shall be provided on all sheets showing, at a minimum, project title, other project identifying information, developer information, sheet number, and name of engineering firm, engineering consultant, or individual Civil Engineer responsible for the preparation of the plan. Each sheet shall be signed and sealed by the Licensed Civil

Engineer responsible for the design. In addition, the title sheet shall have a signature block and stamp location for the City Engineer.

The title sheet shall include the following information:

- Vicinity map showing north arrow, scale, and project location in relationship to major streets
- Index
- Legend of symbols & abbreviations
- Underground Service Alert notice
- Private Engineer's statement
- Survey monument" note and "Contractor's responsibility for Safety" note
- Description of property (address, APN, legal description)
- General grading notes
- General erosion control notes
- All construction notes
- Construction quantities including cut, fill, and shrinkage quantities
- Benchmark(s) and basis of bearing
- Date of soils report and name of soils engineer

Construction details shall not be shown on title page unless the project is a "one-sheet" job.

The plan and detail sheets shall be prepared according to the following criteria:

- North arrow shall be up or to the right.
- Scale shall be 1"=10', 1"=20', or 1"=40'. Scales smaller than 1"=40' will require approval from the City Engineer prior to beginning design.
- Existing features (curbs, gutters, structures, trees, spot elevations, contours, etc.) shall be screened or in a color easily distinguishing them.
- Show existing and proposed elevations and contours.
- Show existing features a minimum of 25 feet beyond property lines.
- Show all existing substructures and surface features.
- To minimize potential confusion, a separate demolition plan may be required.
- To minimize potential confusion, a separate dimension plan may be required.

An erosion control plan shall be prepared and included as an integral part of the grading plan, and shall use the same numbering convention as the grading plan.

**Design Criteria** – The following design criteria shall be adhered to as a minimum. Additional requirements may be imposed as determined necessary by the City Engineer.

A soils report including recommendations for overexcavation, compaction, pavement design, etc., is required.

Cut and fill slopes shall not exceed a slope of two horizontal to one vertical (2:1). Compaction requirements on fill slopes shall be in accordance with recommendations of the soils or geotechnical engineer. Construction of fill slopes on existing slopes exceeding five horizontal to one vertical (5:1), will require benching. The top of slope shall be a minimum of 2.0 feet from any property line. The toe of slope shall be a minimum of 3.0 feet from any property line. Slopes steeper than five horizontal to one vertical (5:1) shall not cross property lines.

Graded areas not intended to be paved shall have a minimum slope of two percent (2%) unless otherwise reduced by the City Engineer. In no event shall the slope be less than one percent (1%).

Asphalt concrete paved areas shall have a minimum slope of one percent (1%).

PCC paved areas shall have a minimum slope of one half percent (0.5%). PCC paved areas on site include combination curbs and gutters, vee or ribbon gutters, driveways, walks, parking areas, etc.

Sidewalk grades shall not exceed two percent (2%) cross slope or five percent (5%) longitudinal slope. Asphalt paved areas identified as parking stalls, pedestrian walk areas, or walkways shall have the minimum slope possible but in no case shall exceed two percent (2%) in any direction.

Drainage shall be concentrated in concrete gutters. Asphalt swales or asphalt gutters are not permitted.

For multi-family residential, commercial, and industrial developments nuisance runoff/drainage shall not be permitted to cross sidewalks or drive approaches. Nuisance runoff/drainage shall be collected at the back of sidewalk and conveyed to the street through a parkway culvert. The minimum parkway culvert size shall be 4" high by 12" wide. It is not the intent of this requirement to capture and convey all storm water runoff. The intent is to prevent nuisance flows and irrigation runoff from crossing sidewalks.

Developments greater than two acres may require an onsite storm drain system and adequate outlet. Before proceeding with design, check requirements with City Engineer. All hydrology studies and calculations shall be in accordance with standards developed by the San Bernardino County Flood Control District.

Retaining walls, if required, shall be per City of Montclair standards, to the extent for which standards are available and apply. For retaining walls not covered by City standards, the designer shall submit calculations for the walls specified.

Improvements within the public right-of-way – Most improvement projects will require separate street improvement plans for improvements within the public right-of-way.

However, if street improvements are limited to drive approach removals/construction/reconstruction, sidewalks, streetlights, or similar type improvements, they may be shown on the grading plan with prior approval of the City Engineer.

**Water Quality Management Plan**

In compliance with the California State Water Code and Regional Water Quality Control Board requirements and guidelines, a Water Quality Management Plan (WQMP) is required for most projects. The WQMP shall be submitted and approved prior to acceptance of any grading plan for plan checking. Contact Joe Rosales at 909-625-9470 to discuss WQMP requirements.

**CITY OF MONTCLAIR  
BUILDING DIVISION**

**GRADING PLAN GENERAL NOTES**

1. All work shown hereon shall be done in accordance with City of Montclair standards and specifications, Appendix J of the 2007 Uniform Building Code, and Standard Specifications for Public Works Construction, 2006 edition, with any supplements.
2. Prior to start of construction a pregrading meeting at the site is required. Participants shall include, as a minimum, the inspector, soils engineer, and grading contractor.
3. Work shall not commence prior to 7:00 a.m. nor extend past 6:00 p.m., Monday through Friday unless other hours are authorized by the City's Community Development Director. Equipment warm-up shall not start prior to 6:30 a.m.
4. All survey monuments shall be protected and perpetuated in place. Any disturbed or covered monuments shall be reset by a qualified Civil Engineer or Land Surveyor at the expense of the grading contractor.
5. Prior to taking water from any fire hydrant, the contractor shall make arrangements with the Monte Vista Water District to obtain a fire hydrant water meter. Meter location may not be altered without Water District's approval.
6. At least 48 hours prior to start of grading, contractor shall notify Underground Service Alert at 1-800-227-2600 and obtain a USA ticket number to provide to Building Inspector.
7. Prior to the start of grading, all existing vegetation and debris, including existing structures, footings, foundations, rubble, trees, and root systems, shall be removed from the site to the satisfaction of the Soils Engineer and disposed of legally.
8. After removal of debris, any existing fill or disturbed native soils shall be excavated and removed in accordance with the recommendations of the soils report and to the satisfaction of the Soils Engineer.
9. Exposed soils shall be inspected by the Soils Engineer, and any additional over-excavation shall then be made in accordance with the Soils Engineer's recommendations as contained in the Soils Report or as directed by Soils Engineer in field.
10. Unless otherwise directed by the Soils Engineer or the soils report, exposed soils shall be scarified to a minimum depth of six inches, brought to proper moisture

content and compacted to at least 95 percent of the maximum density, as determined by ASTM D 1557.

11. If any unforeseen subsurface structures are encountered during construction, they shall be immediately brought to the attention of the Soils Engineer and Building Division before proceeding further.
12. Erosion control plans shall be prepared and submitted to the City Engineer for approval concurrent with the grading permit application and/or with grading plan submittal unless otherwise waived by the City Engineer. The erosion control plans must be approved and erosion control devices installed and certified and inspected as being properly constructed by the engineer of record. Protective measures shall be taken by the Contractor so as not to cause any mud, silt, or debris to be deposited onto public or adjacent property at all times during construction. Any mud or debris on public property shall be removed immediately. Dust shall be controlled by watering or other approved method throughout the grading and building construction operations.
13. Prior to the start of any building construction, the Contractor shall furnish the City Building Official with certifications from the Civil Engineer and Soils Engineer that building pad sub-grades are within 0.10 foot of the approved plans and that the proper compaction and preparation has been obtained.
14. No demolition shall commence without obtaining a demolition permit from the City Building Division.
15. No grading shall commence without obtaining a grading permit from the City Building Division and notifying Building Inspector 24 hours prior to start of work.
16. The Soils Engineer shall also be responsible to verify and report that proper compaction has been obtained by subcontractors and utility agencies concerning utility line backfill, including, but not limited to, sewers, water, electrical, gas, communication, and landscape irrigation lines.
17. Certificates of final lot grading are to be submitted to the Building Division prior to final building inspection.
18. All concrete used in site paving, drainage, curbs, and/or gutters shall be Type II or V and shall be 560-C-3250 unless a higher strength mix is specified.
19. An as-graded grading plan and certification of compliance with said grading plan is to be submitted to Building Division prior to paving and/or landscaping.
20. All slopes exceeding five feet in vertical height and exceeding 5:1 slope are to be planted with approved plant material and provided with approved watering system.

21. Any area shown to be graded for future work shall have a minimum grade of one percent (1%) to drain. Semi-permanent erosion control devices shall be installed or constructed and maintained as necessary.
22. No adjustment of elevation shall be made without prior written approval of the Building Official and the Civil Engineer of record.
23. All P.C.C. water carrying devices with slopes less than 0.5 percent will be water-tested prior to final finish. Any residual ponding in evidence at time of inspection shall be cause for removal and replacement.
24. All walls over two feet (2') in height require separate building permits and inspection.
25. All work within public rights-of-way requires separate permits issued by the Engineering Division. Inspection for work within public rights-of-way will be provided by the Engineering Division.
26. Grading contractor shall notify the Soils Engineer not less than 72 hours in advance of the location of any soils proposed for import. Each proposed import source shall be sampled, tested, and approved by the Soils Engineer prior to delivery of soils for use on the site.
27. No soil may be imported or exported without first obtaining approval from the City Engineer as to the proposed haul route.
28. Strict adherence to dust control requirements shall be enforced and adjacent streets are to be cleaned daily of all dirt and debris that is the result of this operation.
29. Prior to commencing the excavation of a trench 5 feet in depth or greater into which a person will be required to descend, the contractor shall first obtain a permit to do so from the division of industrial safety pursuant to subsection 7-10.4.1 of the Standard Specifications for Public Works Construction, 2003 edition plus supplements. A copy of the permit shall be filed with the City Engineer or designated representative.

### **Caltrans Specifications**

*It is generally not necessary to reference Caltrans standard specifications for grading plans. However, if designer feels the need to include one or more provisions from the Caltrans standard specifications, replace Note No. 1 with the following:*

1. All work shown hereon shall be done in accordance with City of Montclair standards and specifications, Appendix J of the 2007 Uniform Building Code, State of California Department of Transportation Standard Specifications, dated

July 2002, and Standard Specifications for Public Works Construction, 2006 edition, with any supplements.

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The anticipated grading quantities for this project are:

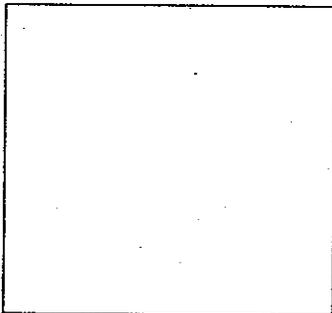
\_\_\_\_\_ cubic yards cut  
\_\_\_\_\_ cubic yards fill  
\_\_\_\_\_ % shrinkage

We hereby certify that we have reviewed this plan and that it substantially conforms to Soils Report No.: \_\_\_\_\_ Dated: \_\_\_\_\_ prepared by

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

for: \_\_\_\_\_ (job address/project)

Montclair, CA 91763



The undersigned **Civil Engineer** will be responsible for professional inspection in accordance with Appendix J of the 2007 Uniform Building Code.

\_\_\_\_\_  
**(ENGINEER'S SEAL)**

*Include the following information on the grading plans:*

The estimated start date for construction is \_\_\_\_\_

The estimated completion date for construction is \_\_\_\_\_

ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

NOTICE TO CONTRACTOR

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OR CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

## APPENDIX J

# GRADING

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION J101 GENERAL

**J101.1 Scope.** The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the soils report, the soils report shall govern.

**J101.2 Flood hazard areas.** The provisions of this chapter shall not apply to grading, excavation and earthwork construction, including fills and embankments, in floodways within flood hazard areas established in Section 1612.3 or in flood hazard areas where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

### SECTION J102 DEFINITIONS

**J102.1 Definitions.** For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

**BENCH.** A relatively level step excavated into earth material on which fill is to be placed.

**COMPACTION.** The densification of a fill by mechanical means.

**CUT.** See Excavation.

**DOWN DRAIN.** A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility

**EROSION.** The wearing away of the ground surface as a result of the movement of wind, water or ice.

**EXCAVATION.** The removal of earth material by artificial means, also referred to as a cut.

**FILL.** Deposition of earth materials by artificial means.

**GRADE.** The vertical location of the ground surface.

**GRADE, EXISTING.** The grade prior to grading.

**GRADE, FINISHED.** The grade of the site at the conclusion of all grading efforts.

**GRADING.** An excavation or fill or combination thereof.

**KEY.** A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

**SLOPE.** An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

**TERRACE.** A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

### SECTION J103 PERMITS REQUIRED

**J103.1 Permits required.** Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefor from the building official. A grading permit does not include the construction of retaining walls or other structures.

**J103.2 Exemptions.** A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.
7. Exploratory excavations performed under the direction of a registered design professional.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

### SECTION J104 PERMIT APPLICATION AND SUBMITTALS

**J104.1 Submittal requirements.** In addition to the provisions of Section 105.3, *Appendix Chapter 1*, the applicant shall state the estimated quantities of excavation and fill.

**J104.2 Site plan requirements.** In addition to the provisions of Section 106, *Appendix Chapter 1*, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

**J104.3 Soils report.** A soils report prepared by registered design professionals shall be provided which shall identify the nature and distribution of existing soils; conclusions and recommendations for grading procedures; soil design criteria for any structures or embankments required to accomplish the proposed grading; and, where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

**Exception:** A soils report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

**J104.4 Liquefaction study.** For sites with mapped maximum considered earthquake spectral response accelerations at short periods ( $S_s$ ) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans.

**Exception:**

1. A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.
2. [OSHPD 1, 2 & 4] Exception 1 not permitted by OSHPD.

**SECTION J105  
INSPECTIONS**

**J105.1 General.** Inspections shall be governed by Section 109, Appendix Chapter 1, of this code.

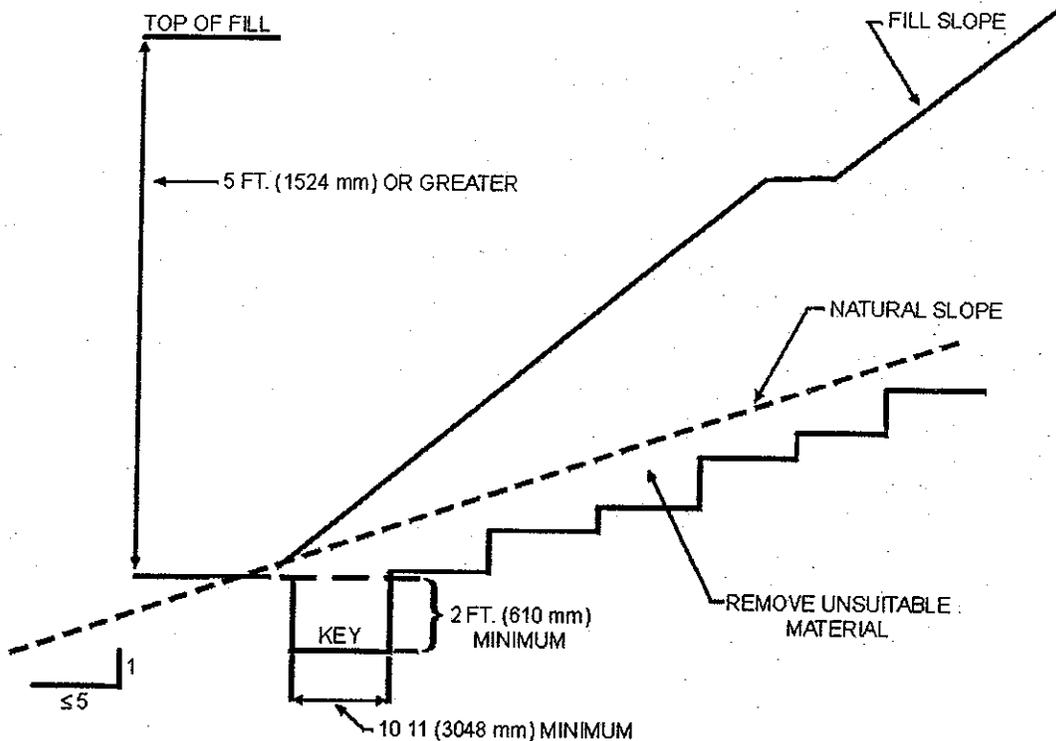
**J105.2 Special inspections.** The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the building official.

**SECTION J106  
EXCAVATIONS**

**J106.1 Maximum slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 horizontal to 1 vertical (50 percent) unless the applicant furnishes a soils report justifying a steeper slope.

**Exceptions:**

1. A cut surface may be at a slope of 1.5 horizontal to 1 vertical (67 percent) provided that all the following are met:
  - 1.1. It is not intended to support structures or surcharges.
  - 1.2. It is adequately protected against erosion.
  - 1.3. It is no more than 8 feet (2438 mm) in height.
  - 1.4. It is approved by the building official.
2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent).



For SI: 1 foot = 304.8 mm.

**FIGURE J107.3  
BENCHING DETAILS**

**SECTION J107  
FILLS**

**J107.1 General.** Unless otherwise recommended in the soils report, fills shall conform to provisions of this section.

**J107.2 Surface preparation.** The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

**J107.3 Benching.** Where existing grade is at a slope steeper than 5 horizontal to 1 vertical (20 percent) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided in accordance with Figure J107.3. A key shall be provided which is at least 10 feet (3048 mm) in width and 2 feet (610 mm) in depth.

**J107.4 Fill material.** Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches (305 mm) in any dimension shall be included in fills.

**J107.5 Compaction.** All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches (305 mm) in depth.

*[DSA-SS and OSHPD 1, 2 & 4] This section establishes minimum requirements only.*

**J107.6 Maximum slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 horizontal to 1 vertical (50 percent) shall be justified by soils reports or engineering data.

**SECTION J108  
SETBACKS**

**J108.1 General.** Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks.

**J108.2 Top of slope.** The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater.

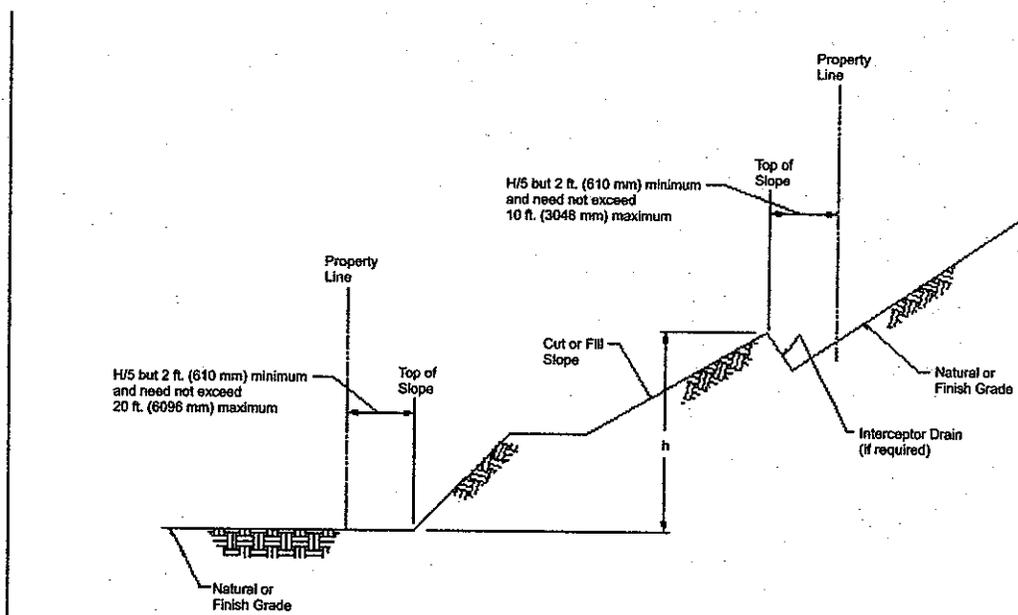
**J108.3 Slope protection.** Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

**SECTION J109  
DRAINAGE AND TERRACING**

**J109.1 General.** Unless otherwise recommended by a registered design professional, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

**Exception:** Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).



For SI: 1 foot = 304.8 mm.

**FIGURE J108.1  
DRAINAGE DIMENSIONS**

**J109.2 Terraces.** Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.

Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum gradient of 20 horizontal to 1 vertical (5 percent) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of 5 feet (1524 mm).

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m<sup>2</sup>) (projected) without discharging into a down drain.

**J109.3 Interceptor drains.** Interceptor drains shall be installed along the top of cut slopes receiving drainage from a tributary width greater than 40 feet (12 192 mm), measured horizontally. They shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the building official, but shall not be less than 50 horizontal to 1 vertical (2 percent). The drain shall be paved with concrete not less than 3 inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

**J109.4 Drainage across property lines.** Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of nonerosive down drains or other devices.

## SECTION J110 EROSION CONTROL

**J110.1 General.** The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting.

**Exception:** Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

**J110.2 Other devices.** Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

## SECTION J111 REFERENCED STANDARDS

ASTM D 1557-e01	Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort [56,000 ft-lb/ft <sup>3</sup> (2,700kN-m/m <sup>3</sup> )].	J107.6
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**CITY OF MONTCLAIR  
ENGINEERING DEPARTMENT FEE SCHEDULE**

Sewer Connection Fee (IEUA) Residential.....	\$5,007.00 per equivalent dwelling unit (EDU).
Mobile Home Space .....	\$4,766.00 per mobile home space.
Com./Ind.....	\$5,007.00 per EDU-See MCC 9.20.440/.450.
Sewer Connection Fee (City).....	\$500.70 per EDU plus reimbursement costs as may apply.
Sewer Maintenance Charge-Connected .....	\$20.42 per EDU/month residential. Com./Ind. charges are computed based on water usage.
Sewer Maintenance Charge-Not connected .....	\$2.35 per property/month-Availability to serve.
Sewer Dye Test:.....	\$100.00

**Park Development Impact Fees (per lot or space)**

	<u>Land Dedication</u>	OR	<u>In Lieu Fee</u>
Single Family Lots or Dwellings .....	478 sq. ft.....		\$2,800.00
Multi-Family .....	431 sq. ft.....		\$2,800.00
Mobile Home Space .....	308 sq. ft.....		\$1,083.00

**Transportation Development Impact Fees (DIF)**

Single Family Lots or Dwelling .....	\$1,868.00 per unit
Multi-Family .....	\$1,307.00 per unit
Retail .....	\$8,605.00 per ksf
Office.....	\$2,140.00 per ksf
Industrial.....	\$1,365.00 per ksf

**Plan Check Fee Schedule**

Lot Merger/Parcel Merger .....	\$1,600.00
Lot Line Adjustment.....	\$1,250.00
Final Tract Map or Parcel Map Check.....	\$2,000.00 plus \$75.00 per lot
Grading Plan Check ~ Rough* .....	First two sheets \$2,100.00 plus \$100.00 each additional sheet
Grading Plan Check ~ Precise* .....	First two sheets \$2,100.00 plus \$300.00 each additional sheet
Street Plan Check.....	First two sheets \$2,100.00 plus \$1,000.00 each additional sheet
Sewer Plan Check.....	First two sheets \$2,000.00 plus \$800.00 each additional sheet
Storm Drain Plan Check .....	First two sheets \$2,100.00 plus \$1,000.00 each additional sheet

\*Grading plan checking is done by the Engineering Division for the Building Division. Grading permits are issued by the Building Division of the Community Development Department after grading plans have been approved by the Engineering Division. Retaining walls are checked by the Building Division and require additional Building Division plan check fees.

The above fees include checking all relevant support documents required. The support documents include soils reports, title reports, closure calculations, compliance with conditions of approval, etc. The above fees assume no more than three plan checks will be necessary. Additional plan checks may require additional plan check fees be paid prior to further processing.

Hydrology Study Review.....	\$175.00 per hour ~ min. 3 hrs.
Water Quality Management Plan Review (WQMP)	
Non-Categorical WQMP .....	\$1,500.00
Categorical WQMP .....	\$3,500.00
WQMP plan checking beyond three plan checks .....	\$150.00 per hour
Other Engineering Reviews .....	\$175.00 per hour

Plan checking for water lines and appurtenances is performed by the Monte Vista Water District with fees set and collected by that agency. Approval of water plans by the City is not generally required.

**ENGINEERING DEPARTMENT FEE SCHEDULE**

Encroachment Permit ..... \$35.00

General Construction Permit..... \$30.00 plus inspection fees:

**Inspection Fees**

Residential Sewer Connection ..... \$170.00  
 Residential Drive Approach ..... \$127.00  
 Residential Sidewalk ..... \$127.00  
 Utility Street Cuts ≤ 5' x 10' ..... \$127.00  
 Refundable Paving Deposit ..... \$200.00 per street cut (minimum).

**Inspection Fees for City-Maintained Facilities in Public Right-of-way**

<u>Estimated Value/Cost</u> .....	<u>Fee</u>
Under \$10,000 Valuation .....	\$400.00
\$10,001 to \$25,000 Valuation .....	\$656.25
\$25,001 to \$50,000 Valuation .....	\$1,312.50
\$50,001 to \$100,000 Valuation .....	\$2,437.50
\$100,001 to \$200,000 Valuation .....	\$4,500.00
Over \$200,000 Valuation .....	2% of Construction Cost Estimate

**Inspection Fees for Work within Right-of-way-Not to Be Maintained by City**

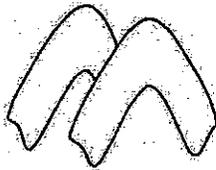
<u>Estimated Value/Cost</u> .....	<u>Fee</u>
Under \$10,000 Valuation .....	\$200.00
\$10,001 to \$25,000 Valuation .....	\$350.00
\$25,001 to \$50,000 Valuation .....	\$750.00
\$50,001 to \$100,000 Valuation .....	\$1,500.00
\$100,001 to \$200,000 Valuation .....	\$3,000.00
\$200,001 to \$400,000 Valuation .....	\$4,000.00
Over \$400,000 Valuation .....	1% of Construction Cost Estimate

**Inspection Fees for WQMP/Best Management Practices**

<u>Estimated BMPs Cost</u> .....	<u>Inspection Fee</u>
\$1.00 to \$25,000.....	4% of estimated value/cost
\$25,001 to \$100,000.....	\$1,000 plus 3.5% of the value/cost over \$25,000
\$100,001 and over.....	\$3,625 plus 3% of the value/cost over \$100,000
Requests for permit cancellation and reimbursement .....	\$100.00 processing charge

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CITY OF MONTCLAIR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM-NPDES

CONDITIONS OF APPROVAL

PROJECT: \_\_\_\_\_

APPLICANT: \_\_\_\_\_ DATE: \_\_\_\_\_

REVIEWED: \_\_\_\_\_ Original  Revised

NOTES: ONLY APPLICABLE CONDITIONS ARE CHECKED

THE APPLICANT AND/OR APPLICANT'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL APPLICABLE CONDITIONS PRIOR TO ISSUANCE OF ANY BUILDING PERMITS ON THIS PROJECT SITE UNLESS SPECIFIED OTHERWISE.

NPDES (National Pollutant Discharge Elimination System) Permit Requirements:

- Submit (1)  (2)  (3)  set(s) of plans for NPDES Coordinator review. Plans must include items A – J listed on document titled "PLAN REQUIREMENTS" (see attachment A)
- Erosion and Sediment control activity notes are to be placed on the grading plan cover sheet. Detailed notes can be found on pages 1-3 of the form titled **EROSION AND SEDIMENT CONTROL**. (see attachment B & B.1)
- Prior to the approval of the Grading Plan and issuance of Grading Permit, a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the **Engineering Division**. The WQMP shall be submitted on a standard City form (see attachment C) and shall specifically identify Post-Construction Structural and Non-Structural Best Management Practices (BMPs) that will be designed into and implemented on this project to reduce the discharge of pollutants into the storm drain system to the maximum extent practicable for the duration of this project. The WQMP can be purchased on electronic format (CD) for \$5.00 or the WQMP can be downloaded from the State website:  
[http://www.waterboards.ca.gov/santaana/water\\_issues/programs/stormwater/san\\_bernardino\\_permit\\_wqmp.shtml](http://www.waterboards.ca.gov/santaana/water_issues/programs/stormwater/san_bernardino_permit_wqmp.shtml)  
Please direct all questions on the WQMP to Mr. Joe Rosales at 909-625-9470 or Mr. Michael C. Hudson at 909-625-9441.
- All projects that develop one (1) acre or more of total land area, or which are part of a larger phased development of land are required to obtain coverage under

the State Water Control Board's General Permit for storm discharges associated with construction activity. This requirement includes projects that are linear in nature such as pipeline construction or curb construction. Proof of filling a Notice of Intent (NOI) with the state for coverage under this permit is required prior to approval of the grading plan and issuance of grading permit. The applicant shall submit a copy of the Waste Discharge Identification Number (WDID#) for coverage under the General Construction Permit to the Engineering Division. The General Construction Permit can be found on the State website: [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/constpermits/wqo\\_2009\\_0009\\_complete.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_complete.pdf).

In addition, the following note shall be placed on the Grading Plan cover sheet:

**THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE REQUIREMENTS OF THE STATEWIDE GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.**

NOTES:

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## ATTACHMENT A

### CITY OF MONTCLAIR PUBLIC WORKS DEPARTMENT

#### STORM WATER PLAN REQUIREMENTS

Provide a site plan with the following items shown:

- A. Construction site perimeter, existing and proposed buildings, lots, roadways, paved areas, and areas of existing vegetation to be protected/preserved.
- B. General topography both before and after construction, and the anticipated discharge points where storm water drains to or from the construction site, including the point where runoff discharges to a municipal storm drain system or other water body. The plan must extend as far outside the site perimeter as necessary to illustrate the relevant drainage areas. Where relevant drainage areas are too large to depict on the map, map notes or inserts illustrating the upstream drainage areas are sufficient. Note: Runoff from off-site areas should be prevented from flowing through areas that have been disturbed by construction unless appropriate conveyance systems are in place.
- C. Plan must show Best Management Practices for each phase of construction, Grading and Land Development Phase, Streets and Utilities Phase, Vertical Construction Phase, and Final Landscaping and Site Stabilization Phase. Include subsequent sheets as necessary.
- C. Drainage patterns and slopes anticipated after major grading activities. The drainage patterns into each on-site storm water inlet point must be shown.
- D. Areas of soil disturbance, cut or fill, which will be stabilized during the rainy season by temporary or permanent erosion control measures such as seeding, mulch, blankets, etc.
- E. Location of temporary storm water structures used during construction to control erosion and sedimentation.
- F. Construction material loading, unloading and storage areas.
- G. Temporary stockpile or storage of soil or construction waste.
- H. Construction vehicle and equipment storage, cleaning and service areas.
- I. Stabilized construction equipment entrance/exit.
- J. Percentage of impervious surfaces before and after construction.

## ATTACHMENT B

### CITY OF MONTCLAIR

#### EROSION AND SEDIMENT CONTROL NOTES

1. The contractor shall follow the guidelines for the City of Montclair procedures for grading and erosion and sediment control for the measures shown or stated on the site and grading plans.
2. The contractor shall maintain the construction site by implementation of Best Management Practices (BMPs) in such a manner that pollutants are not discharged from the site to the maximum extent practical.
3. The contractor shall consider the full range of erosion control BMPs for all disturbed surfaces. Measures may include: buffer strips, hydromulch or mulch, track walking or imprinting, chipped native vegetation, bonded fiber matrices, soil stabilizers, binders, temporary seedings, erosion control blankets, sediment barriers, check dams, gravel and filter inlets, straw bales, waddles, gravel bags, drainage swales, and sediment basins. Gravel bags, if used in the street and/or in high traffic areas are to be monofilament gravel bags with 1½" minus drain rock. Any questions regarding gravel bag requirements should be addressed to the City's NPDES Coordinator, Joe Rosales, at 909-625-9470.
4. Contractor shall install and maintain silt fence around perimeter of property and installed according to the California Stormwater Quality Association Handbooks.
5. The contractor must ensure that the construction site is prepared prior to any grading or construction activities. Contractor shall have all erosion and sediment control measures in place at all times. This requirement is not conditional upon season or weather.
6. All erosion and sediment control measures shall be maintained until disturbed areas are stabilized.
7. Sediment control BMPs are required to be installed at all operation inlets to a storm drain system at all times. All erosion and sediment control measures shall be checked before and after all storms to ensure measures are functioning properly.
8. Contractor shall maintain a log at the site of all inspections or maintenance of Best Management Practices (BMPs), as well as any corrective changes to the BMPS or erosion and sediment control plan.
9. In areas where soil is exposed, prompt replanting with native compatible, drought-resistant vegetation shall be performed. No areas will be left exposed over the winter season.
10. The contractor shall install a stabilized construction entrance(s) prior to commencement of grading. Location of the entrance may be adjusted by the contractor to facilitate grading operations. All construction traffic leaving the construction site must cross the stabilized construction entrance. The stabilized

## ATTACHMENT B

construction entrance shall remain in place until the road base rock course is completed. Wheel wash is recommended for clay soils.

11. All sediment deposited on paved roadways shall be swept at the end of each working day or more frequently as necessary.
12. Contractor shall place gravel bags around all new drainage structure openings immediately after the structure opening is constructed. These gravel bags shall be maintained and remain in place until construction is completed.
13. The Storm Water Pollution Prevention Plan may not cover all situations that arise during construction due to unanticipated field conditions. Variations may be made to the plan in the field subject to the approval of, or at the direction of, the City's NPDES Coordinator.
14. All portable restrooms shall have a tray underneath it to catch any spillage.

### **CONTRACTOR SHALL IMPLEMENT BMP HOUSEKEEPING PRACTICES AS FOLLOWS:**

#### **A. PROVIDE EMPLOYEE/SUBCONTRACTOR TRAINING IN CONSTRUCTION BMPs**

Obtain appropriate construction best management practice fact sheets from the "California Storm Water BMP Handbook for Construction" or equivalent and provide copies and training on these BMPs to employees and subcontractors.

#### **B. SOLID WASTE MANAGEMENT:**

Provide designated waste collection areas and containers. Arrange for regular removal and disposal. Clear site of trash including organic debris, packaging materials, scrap or surplus building materials, and domestic waste daily.

#### **C. MATERIAL DELIVERY AND STORAGE:**

Provide a designated material storage area with secondary containment such as berming. Store material on pallets and provide covering for soluble materials. Relocate storage area into building shell when possible. Inspect area weekly.

#### **D. CONCRETE WASTE:**

Provide a designated area for a temporary container to be used for concrete truck washout. Dispose of hardened concrete offsite. At no time shall a concrete truck, trailer, or mixer dump its waste and/or wash out into the City or private streets, storm drains, or sanitary sewers. Inspect daily to control runoff and weekly for removal of hardened concrete. Below-grade pits are not allowed.

## ATTACHMENT B

### E. PAINT AND PAINTING SUPPLIES:

Provide instruction to employees and subcontractors regarding reduction of pollutants including material storage, use, and clean up. Inspect site weekly for evidence of improper disposal.

### F. VEHICLE FUELING, MAINTENANCE AND CLEANING:

Provide a designated fueling area with secondary containment such as berming. Do not allow mobile fueling of equipment. Provide equipment with drip pans. Restrict onsite maintenance and cleaning of equipment to a minimum. Inspect area weekly.

### G. HAZARDOUS WASTE MANAGEMENT:

Prevent the discharge of pollutants from hazardous wastes to the drainage system through proper material use, waste disposal and training of employees. Hazardous waste products commonly found onsite include, but are not limited to, paints and solvents, petroleum products, fertilizers, herbicides and pesticides, and soil stabilization, stabilization products, asphalt products and concrete curing products.

### H. ASPHALT, SAWCUTTING, CORING, AND GRINDING ACTIVITIES:

Inform employees and subcontractors to protect catch basins when applying asphalt seal coat, slurry seal or fog seal and during grinding activities, and to prevent sawcutting slurries, coring, or A.C. grinding wastes from entering the storm drain system. All slurry caused by sawcutting or coring activities shall be vacuumed and disposed of properly.

### I. BUILDING BLASTING AND CLEANING:

Provide instruction to employees and subcontractors, before they start the job, to ensure that blast residue from high-pressure washing of buildings is not allowed to enter the storm drain system. If paint removal involves hazardous substances such as lead and mercury, the waste must be prevented from percolating into the ground and must be hauled off-site as a hazardous waste.

### J. CEMENT, GROUT AND MORTAR WORK, AND CLEAN UP:

Ensure that employees and subcontractors prevent cement, grout and mortar solids, and clean up water from entering the storm drain system.

### K. SANITARY AND SEPTIC WASTES:

Sewage is prohibited in the storm drain system. Ensure septic tank service company is informed that sewage and wastewater generated from the disinfection and wash down of septic tanks cannot be discharged to the storm drain system.

## ATTACHMENT B

### L. WATER LINE DISINFECTION, FLUSHING, DEWATERING, AND OTHER NON-STORM WATER DISCHARGES:

Unless exempted or authorized by an NPDES permit, all non-storm water discharges require prior approval by the City or the Regional Water Quality Control Board. The developer or contractor shall notify the City's NPDES Coordinator 909-625-9470 or the Regional Water Quality Control Board at 951-782-4130 a minimum of five days prior to any discharge to the storm drain system for planned discharges, or as soon as possible, for unplanned discharges. Chlorinated water must be dechlorinated to <0.1 ppm prior to discharge to the City's storm drainage system. Sampling during the first 30 minutes is required. Suspended solids in sediment-laden water must also be reduced to <75 ppm prior to discharge to the storm drain system. Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited.

### M. PROHIBITED DISCHARGES:

The following discharges into the storm drain system are prohibited: Discharges that could have an impact on human health and the environment; cause or threaten to cause pollution, contamination, or nuisance; discharges that exceed any water quality standard contained in the Statewide Water Quality Control Plan or Local Basin Plan; and discharges containing hazardous substance equal to or in excess of a reportable quantity listed in the Federal Regulations 40 CFR Parts 117 and 302.

Materials that can cause or contribute to pollution or a violation of any applicable water quality standard include, but are not limited to: sediments, contaminated soil, solid or liquid chemical spills; wastes from paints, stains, sealants, glues, limes, pesticides or herbicides, wood preservatives or solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, or hydraulic, radiator and battery fluids; fertilizers; vehicle/equipment wash water or concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing; contaminated groundwater and chlorinated potable water line flushing.

### THE CONTRACTOR SHALL REPORT THE FOLLOWING INCIDENTS

1. If there is an accidental discharge of non-storm water containing pollutants that has the potential to enter or enters a City storm drain or flood control channel, the contractor shall notify the City's NPDES Coordinator as soon as possible at 909-625-9470. If no answer, voice mail, or after normal business hours, dial 911 and report discharge.
2. If there is a release or threatened release of a hazardous material, the contractor shall dial 911 and report the discharge. In addition the following agencies shall be notified:

San Bernardino County Fire Department, Hazardous Material Division,  
at 800-33-TOXIC, or

San Bernardino County Fire Department, Hazardous Material Division,

**ATTACHMENT B**

at 909-387-3044, and

State of California Office of Emergency Services at 800-852-7550, and,

National Response Center (for reportable quantity) at 800-424-8802.

**FAILURE TO FOLLOW SEDIMENT & EROSION CONTROL NOTES IS IN VIOLATION OF  
YOUR STATE ISSUED CONSTRUCTION PERMIT AND MONTCLAIR MUNICIPAL CODE  
AND WILL BE SUBJECT TO JOB SHUT DOWN AND/OR MONETARY FINES.**

ATTACHMENT B.1

**EROSION & SEDIMENT CONTROL/NPDES REQUIREMENTS  
FOR PROJECTS LESS THAN 1 ACRE**

In the absence of a provided or required Storm Water Pollution Prevention Plan, the contractor shall follow the guidelines contained herein to reduce the potential for erosion and its associated impacts. These guidelines are minimum requirements. Additional work may be required. The intent of these guidelines is to require the contractor to identify, construct, and implement storm water pollution prevention measures to reduce pollutants in storm water discharges from the construction site both during construction and after construction is completed.

An Erosion and Sediment Control Plan shall be included with the grading plan.  
**NO EXCEPTIONS!**

**Construction Activities**

Fiber Rolls or equivalent and sediment basins shall be used as necessary to prevent sediment transport outside the construction limits or into drainage systems. All disturbed soils in areas such as, slopes, any excavations, and graded areas where there will be no further disturbance of more than 14 days shall be protected to minimize erosion. Sediment tracking shall be cleaned up by the contractor in a manner that will minimize the sediment discharged to any drainage system. Cleaning methods may include but are not limited to shoveling and sweeping.

The entire construction work area shall be wetted down to control fugitive dust. However, water shall not be used in sufficient quantities that sediment transport out of the work area or into any drainage system occurs.

The construction site shall be kept free and clear of all litter and debris to avoid the possibility of any deleterious materials washing into any drainage system or out of the work area.

Any contractor or subcontractor handling fresh concrete or mortars shall keep these materials out of any drainage system. Concrete trucks shall not wash-out into gutters. Concrete finishing tools shall not be cleaned in a manner that would permit cement, mortar or concrete from washing into a gutter or drainage system.

**Storage Areas**

Areas used for storage of equipment or materials shall be protected against runoff of sediment or other deleterious materials. Materials and equipment should be raised on pads or other similar devices.

Stockpiled materials (sand, top soil, landscape materials, other construction materials, etc.) shall be covered with plastic or other suitable material to reduce erosion and runoff

## ATTACHMENT B.1

potential. This requirement is applicable to erosion cause by both wind and rain. Storm water and irrigation runoff shall be directed around stockpile and storage areas.

All potential pollutant materials shall be covered at all times. These materials include but are not limited to dumpsters, waste containers, drums, tanks, solvents, boxes, chemicals, and paints.

### **Maintenance of Equipment**

Whenever possible, equipment shall be serviced and maintained away from the construction site. When this is not possible or is inconvenient, measures shall be taken to prevent spillage and contamination.

All construction equipment shall be maintained in a good state of repair to minimize pollution. Oil, fuel and hydraulic leaks shall be fixed before equipment is brought to the site and put to use. Drip pans shall be used during all oil or fluid changes. Spills shall be cleaned immediately and the wastes disposed of in a legal manner.

Waste materials shall be disposed of properly and in a legal manner. Waste materials shall be recycled whenever possible.



# MONTCLAIR

## WQMP PLAN CHECK SUBMITTAL FORM

DATE: \_\_\_\_\_

ADDRESS/LOCATION: \_\_\_\_\_  
\_\_\_\_\_

PROJECT DESCRIPTION: \_\_\_\_\_  
\_\_\_\_\_

OWNER/DEVELOPER: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

ENGINEER/ARCHITECT: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

**FOR OFFICE USE ONLY:**

TWO COPIES OF PLANS FOR FIRST SUBMITTAL.

NON-CATEGORICAL WQMP FEE - \$1,500 INITIAL REVIEW FEE  
AFTER INITIAL REVIEW AND ASSESSMENT, ADDITIONAL PLAN CHECK FEES MAY BE  
REQUIRED  
ACCT. NO. 1001-300-0000-3573

CATEGORICAL WQMP FEE - \$3,500  
THIS FEE COVERS UP TO THREE WQMP REVIEWS. IF WQMP IS NOT APPROVED AFTER THE  
THIRD SUBMITTAL, AN ADDITIONAL \$3,000 WILL BE REQUIRED PRIOR TO CONTINUATION OF  
THE REVIEW PROCESS. ANY REVIEWS REQUIRED BEYOND A SIXTH PLAN REVIEW WILL  
REQUIRE ADDITIONAL PLAN CHECK FEES TO BE DETERMINED.  
ACCT. NO. 1001-300-0000-3573

FEE AMOUNT: \$ \_\_\_\_\_

RECEIPT NO.: \_\_\_\_\_

DATE: \_\_\_\_\_