NORTH

1 AERIAL

SCALE: NTS

LEGAL DESCRIPTION

LOTS 10, 11, 12, 13, 14 AND 15, LESS THE WEST 12.81 FEET OF LOTS 11 THROUGH 14, BLOCK 11 OF "HOLLYWOOD BEACH FIRST ADDITION" ACCORDING TO PLAT THEREOF, AS RECORDED IN PLAT BOOK 1, PAGE 31, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.
SAID LAND SITUATED IN THE CITY OF HOLLYWOOD, FLORIDA.

PROPERTY ADDRESSES

327 NEBRASKA STREET
HOLLYWOOD, FL 33019

SITE INFORMATION

EXISTING ZONING:	GU – GOVERNMENT
EXISTING LAND USE:	VACANT FIRE STATION
NET LOT AREA:	22,922.0 SQUARE FEET (0.53 ACRES)

SETBACKS:

THERE ARE NO REQUIRED SETBACKS — PROVIDED (FOR INFORMATIONAL PURpofES ONLY)

FRONT	5'–0"
SIDE STREET (NEVADA)	5'–2"
SIDE STREET (NEBRASKA)	5'–4"
REAR	0'–2"

MINIMUM PLOT SIZE:

THERE ARE NO MINIMUM PLOT SIZE REQUIRED

TOTAL SITE COVERAGE:

TO BE DETERMINED BY THE CITY COMMISSION UPON RECOMMENDATION OF THE PLANNING AND DEVELOPMENT BOARD.

PERVIOUS /IMPERVIOUS AREA:

PERVIOUS AREA:	
GROUND LEVEL	964 S.F. (4.16%)
IMPERVIOUS AREA:	
INCLUDING PAVERS	21,968 S.F. (95.84%)

BUILDING SUMMARY

BUILDING HEIGHT:

	PROVIDED
THERE ARE NO MAXIMUM BUILDING HEIGHTS (ADJACENT ZONING BRT-25-C & BRT-25-A1A-C: 50'-0" MAX ALLOWED)	76'–0"

BUILDING AREAS:

FIRE PUMP ROOM	359 S.F.
ELECTRIC ROOM	390 S.F.
CCTV ROOM	91 S.F.
STORAGE	1,812 S.F.
TOILETS	295 S.F.
TRASH ROOM	150 S.F.
GARAGE AREA	128,542 S.F.
ELEVATORS	1,591 S.F.
STAIRWELL	2,500 S.F.
TOTAL	135,730 S.F.

NUMBER OF PARKING SPACES PROVIDED:

1ST FLOOR	22 SPACES
2ND FLOOR	34 SPACES
3RD FLOOR	46 SPACES
4TH FLOOR	46 SPACES
5TH FLOOR	46 SPACES
6TH FLOOR	46 SPACES
7TH FLOOR	46 SPACES
ROOF	17 SPACES
TOTAL	303 SPACES

TYPES OF PARKING SPACES PROVIDED:

STANDARD SPACES	295 SPACES
HC REGUALR ACCESSIBLE SPACES	6 SPACES
HC VAN ACCESSIBLE SPACES	2 SPACES
TOTAL	303 SPACES

RESERVED PARKING SPACES PROVIDED:

RESERVED PARKING FOR COH STAFF	1 SPACE

2 SITE DATA

VARIANCES

	REQUIRED	PROVIDED
WHEELS STOPS	YES	NO
BUILDING HEIGHT	50'–0" MAX PER ADJACENT ZONING BRT-25-C & BRT-25-A1A-C	76'–0"
SIGNAGE	1 SQ FT. PER LINEAR FT. OF SIGNAGE BLDG FACE	
	NORTH FACE = 124 S.F. ALLOWED	323.8 S.F.
	SOUTH FACE = 126 S.F. ALLOWED	383.4 S.F.

SPECIAL EXCEPTION

PARKING GARAGE IN A GU– GOVERMENT DISTRICT

2 SITE DATA CONT'D

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813.888.5800 Ph.
813.888.5822 Fax
BE-0003840

PROJECT TITLE
NEBRASKA GARAGE

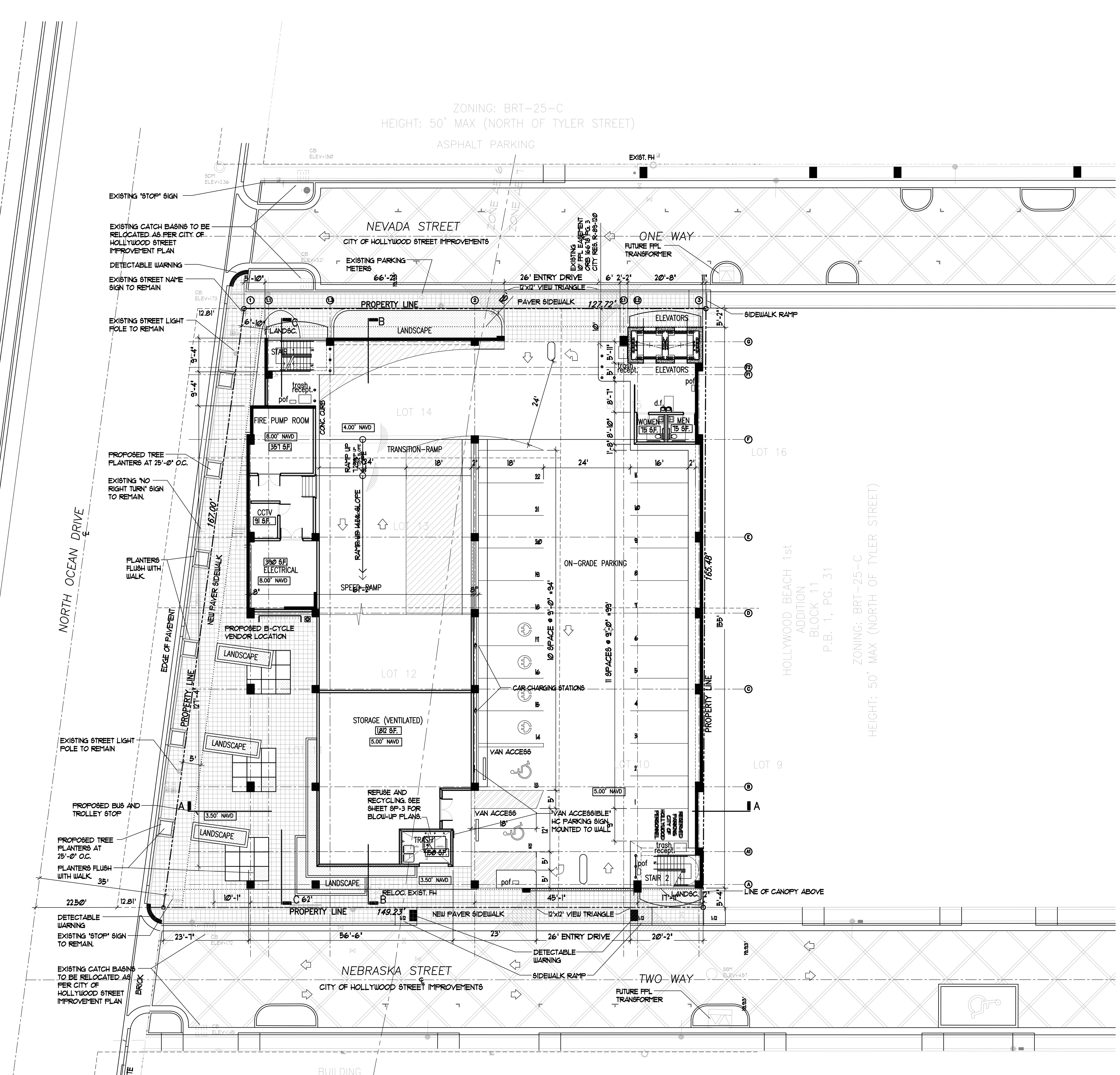
SHEET TITLE
SITE DATA

REVISIONS

No.	DATE	DESCRIPTION
1	10/02/15	COMMENT REV.
3	11/16/16	TAC REVISION

PROJECT No.:	12106
DATE:	01-27-15
DRAWN BY:	JAIME
CHECKED BY:	JBK

SHEET
SP-0



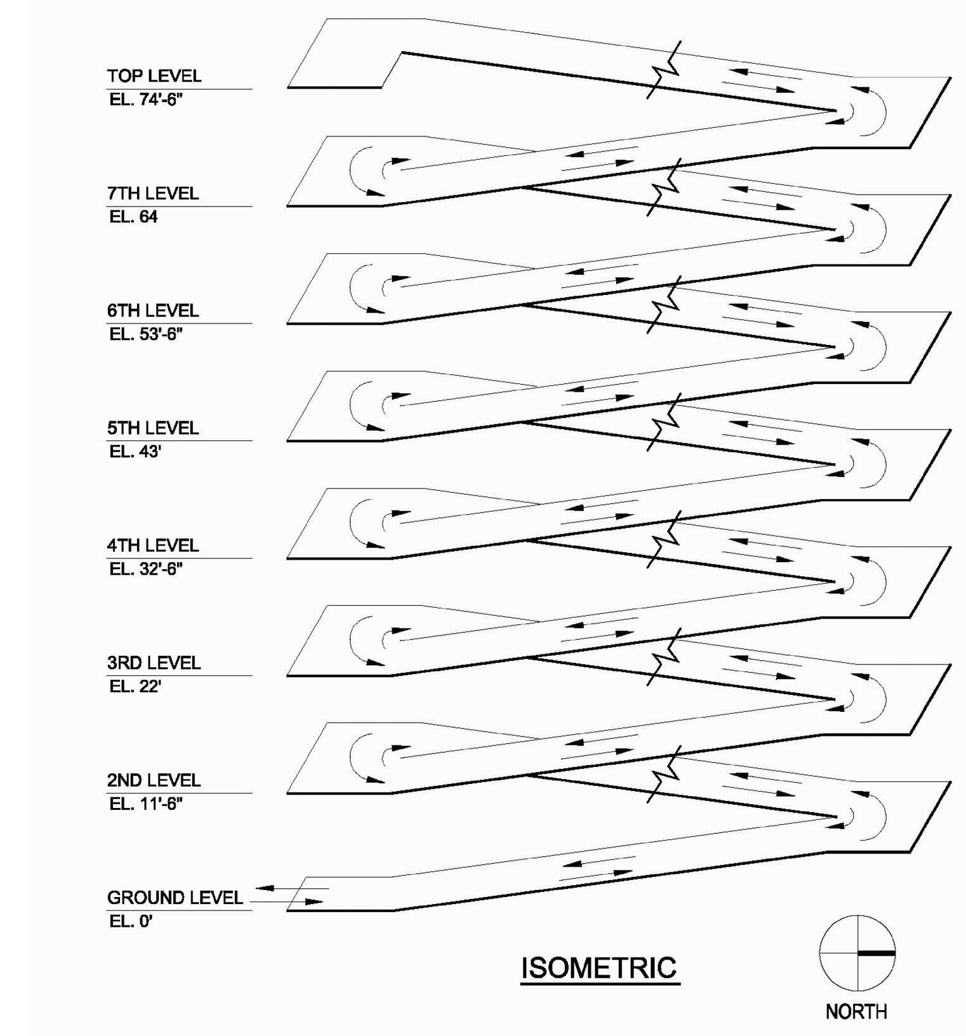
RIGHT-OF-WAY NOTE:

GARAGE CONSTRUCTION AND RIGHTS-OF-WAY WORK TO BE COORDINATED WITH CITY OF HOLLYWOOD CRA STREETSCAPE PROJECTS.

NORTH

1 SITE PLAN

SCALE: 1/16" =1'-0"



2 GARAGE ISOMETRIC

SCALE: 1" =20'-0"

ALL SIGNAGE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF HOLLYWOOD ZONING AND LAND DEVELOPMENT CODE BASED ON THE BRT-25-C ZONING DISTRICT.

NOTE:
BUILDING TO BE FULLY SPRINKLED WITH A SUPERVISED FIRE SPRINKLER SYSTEM.

NOTE:
ALL MACHINE ROOMS, ELECTRICAL, MECHANICAL AND OTHER EQUIPMENT WILL BE ABOVE THE REQUIRED FEMA BASE FLOOD 7.0'

FEMA NOTE:
1. INFORMATION PROVIDED IS BASED ON NEW FIRM MAPS DATED 08/18/2014
2. REFERENCE TO FEMA ELEVATIONS IS SHOWN PER THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
3. PROPERTY IS LOCATED IN FIRM PANEL 12011C0588H UNDER ZONE "AE" WITH ELEVATIONS +6.00' & +7.00' NAVD

SITE LIGHTING NOTE:
SITE LIGHTING LEVELS SHALL NOT EXCEED 0.5 FC AT THE PROPERTY LINE ADJACENT TO RESIDENTIALLY ZONED OR RESIDENTIALLY USED AREAS.

FIRE ALARM NOTE:
A FIRE ALARM SYSTEM IS REQUIRED AS PER F.F.P.C. 2010 NFPA 101

ALL MECHANICAL EQUIPTMENT SHALL BE SCREENED FROM PUBLIC VIEW.

TURTLE LIGHTING ORDINANCE
PROJECT SHALL ADHERE TO THE NEW DEVELOPMENT LIGHTING STANDARDS OF CHAPER 108 "LIGHTING REQUIREMENTS FOR MARINE TURTLE PROTECTION" OF THE CITY OF HOLLYWOOD CODE OF ORDINANCE.

GREEN BUILDING CERTIFICATION TO BE ACHIEVED.

ART INSTALLATION PANEL NOTE:
DESIGNS FOR ART INSTALLATION PANEL SHALL BE SUBMITTED AT A LATER DATE FOR APPROVAL FROM BOARD/COMMISSION

CLASSIFICATION OF STRUCTURE IN FLOOD HAZARD AREA:

PER ASCE 24-05:

STRUCTURE CATEGORY	CATEGORY II	
ELEVATION BELOW WHICH FLOOD-DAMAGE-RESISTANT MATERIALS SHALL BE USED (TABLE 5-1)	BFE +1 OR DFE WHICHEVER IS HIGHER	+8.00' N.A.V.D.
DRY FLOOD PROOFING OF NON-RESIDENTIAL STRUCTURES (TABLE 6-1)	BFE +1 OR DFE WHICHEVER IS HIGHER	+8.00' N.A.V.D.

NOTE:
NOT WITHSTANDING INFORMATION PROVIDED HEREIN, ALL WORK PERFORMED BY THE G.C. AND THE SUB-CONTRACTORS, UNDER THIS SET OF CONSTRUCTION DOCUMENTS AND BUILDING PERMIT, MUST BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE FLORIDA BUILDING CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION LIFE SAFETY CODE 101, THE FLORIDA FIRE PREVENTION CODES, AND ALL OTHER CODES AND ORDINANCES HAVING JURISDICTION OVER THIS PROJECT.

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PROJECT TITLE
NEBRASKA GARAGE

SHEET TITLE
SITE PLAN

REVISIONS

No.	DATE	DESCRIPTION
1	10/02/15	COMMENTS REV.
3	11/16/16	TAC REVISION
4	12/05/16	FINAL TAC COMMENTS

PROJECT No.:	12106
DATE:	01-27-15
DRAWN BY:	JAIME
CHECKED BY:	JBK

SHEET

SP-1

ANY PART OF AN ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 SHALL BE CONSIDERED A RAMP AND SHALL COMPLY WITH FOLLOWING:

SLOPE AND RISE -
THE LEAST POSSIBLE SLOPE SHALL BE USED FOR ANY RAMP. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION SHALL BE 1:12. THE MAXIMUM RISE FOR ANY RUN SHALL BE 30 IN.

CLEAR WIDTH -
1. MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 44" CLEAR
2. RAMPS THAT ARE PART OF A REQUIRED MEANS OF EGRESS SHALL BE NOT LESS THAN 44 INCHES CLEAR

LANDINGS -
RAMPS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP AND EACH RAMP RUN.
LANDINGS SHALL HAVE THE FOLLOWING FEATURES.
1. THE LANDING SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.
2. IF RAMPS CHANGE DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60 INCHES BY 60 INCHES
3. IF A DOORWAY IS LOCATED AT A LANDING, THEN THE AREA IN FRONT OF THE DOORWAY SHALL COMPLY FBC ACCESSIBILITY 2010

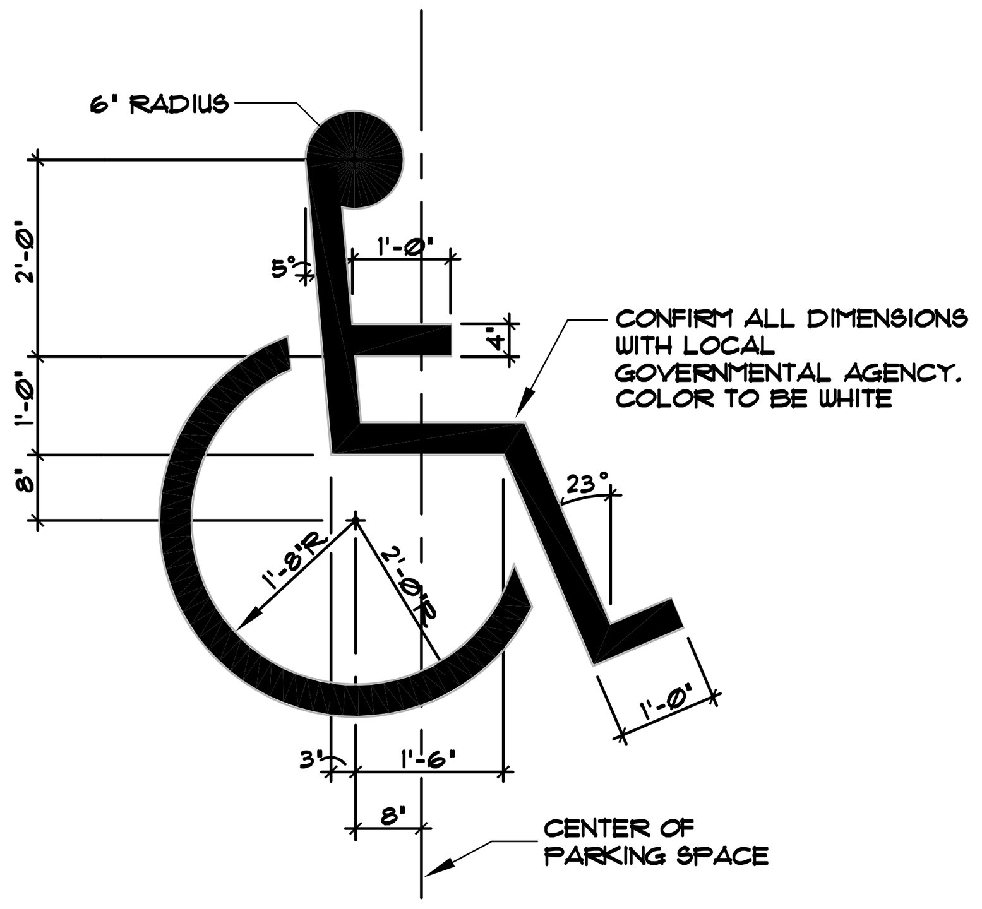
HANDRAILS -
IF A RAMP RUN HAS A RISE GREATER THAN 6 IN OR A HORIZONTAL PROJECTION GREATER THAN 72 IN THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS OR ADJACENT TO SEATING IN ASSEMBLY AREAS. HANDRAILS SHALL COMPLY WITH 4.26 OF THE ADA CODE AND SHALL HAVE THE FOLOWING FEATURES:
1. HANDRAILS SHALL BE PROVIDED ALONG BOTH SIDES OF RAMP SEGMENTS. THE INSIDE HANDRAIL ON SWITCHBACK OR DOGLEG RAMPS SHALL ALWAYS BE CONTINUOUS.
2. HANDRAILS ON RAMPS WHICH ARE NOT CONTINUOUS SHALL EXTEND NOT LESS THAN 18" BEYOND THE SLOPED SEGMENT AT BOTH THE TOP AND BOTTOM, AND SHALL BE PARALLEL TO THE FLOOR OR GROUND SURFACE.
3. THE CLEAR SPACE BETWEEN THE HANDRAIL AND THE WALL SHALL BE 1-1/2 INCH
4. GRIPPING SURFACES SHALL BE CONTINUOUS.
5. TOP OF HANDRAIL GRIPPING SURFACES SHALL BE MOUNTED BETWEEN 34 IN AND 38 IN ABOVE RAMP SURFACES.
6. ENDS OF HANDRAILS SHALL BE EITHER ROUNDED OR RETURNED SMOOTHLY TO FLOOR, WALL OR POST
7. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

CROSS SLOPE SURFACES -
THE CROSS SLOPE OR RAMP SURFACES SHALL BE NO GREATER THAN 1:50. RAMP SURFACES SHALL COMPLY W/ CHAPTER 4 OF FBC 2010 ACCESSIBILITY CODE.

EDGE PROTECTION -
RAMPS AND LANDINGS WITH DROP-OFFS SHALL HAVE CURBS, WALLS, RAILINGS OR PROJECTING SURFACES THAT PREVENT PEOPLE FROM SLIPPING OF THE RAMP. CURBS SHALL BE A MINIMUM OF 2 IN HIGH

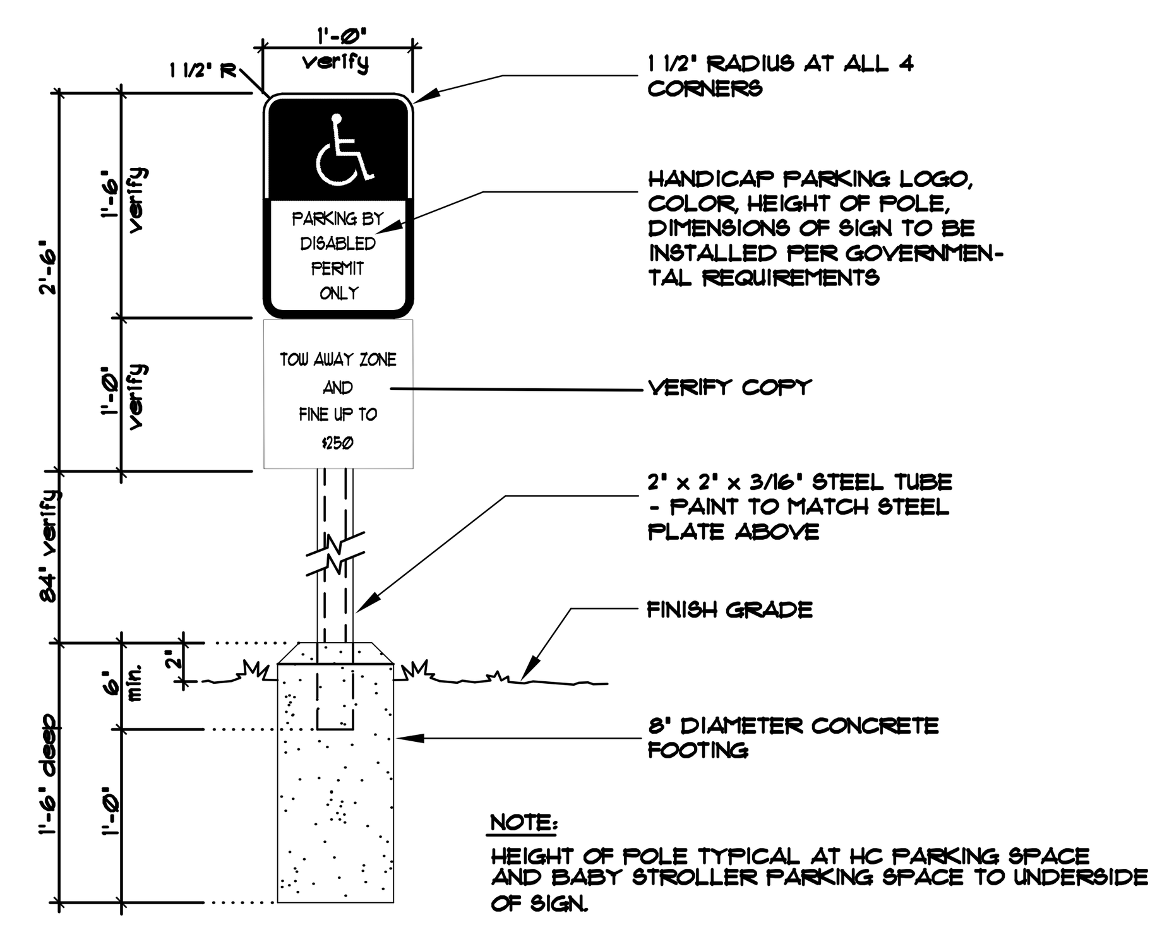
OUTDOOR CONDITIONS -
OUTDOOR RAMPS AND THEIR APPROACHES SHALL BE DESIGNED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES.

1 SITE ACCESSIBILITY NOTES



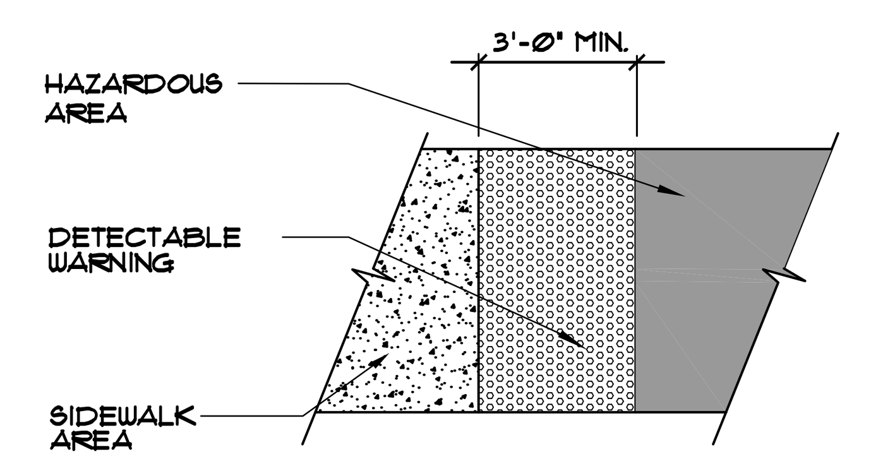
(NTS)

2 PAINTED H.C. SPACE SYMBOL



NOTE:
HEIGHT OF POLE TYPICAL AT HC PARKING SPACE AND BABY STROLLER PARKING SPACE TO UNDERSIDE OF SIGN.

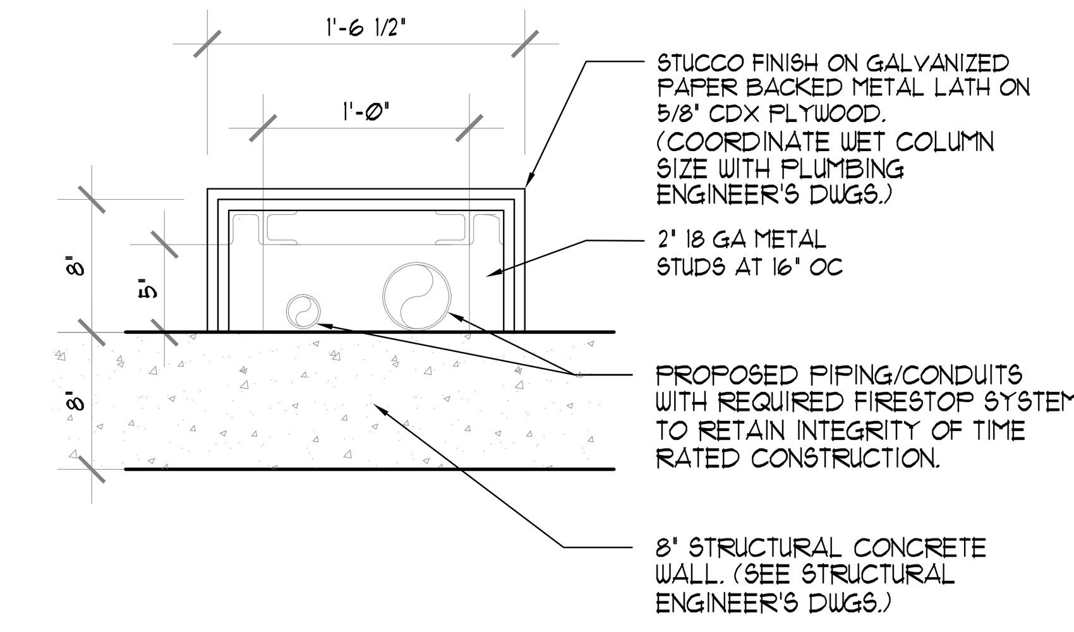
3 HANDICAPPED PARKING SIGN (NTS)



A- IF A WALKWAY CROSSES OR ADJOINS A VEHICULAR WAY AND THE WALKING SURFACES ARE NOT SEPERATED BY CURBS, RAILING AND OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND THE VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS "DETECTABLE WARNING" WHICH IS 36" WIDE, AS PER F.B.C. ACCESSIBILTY 2010 SECTION 705

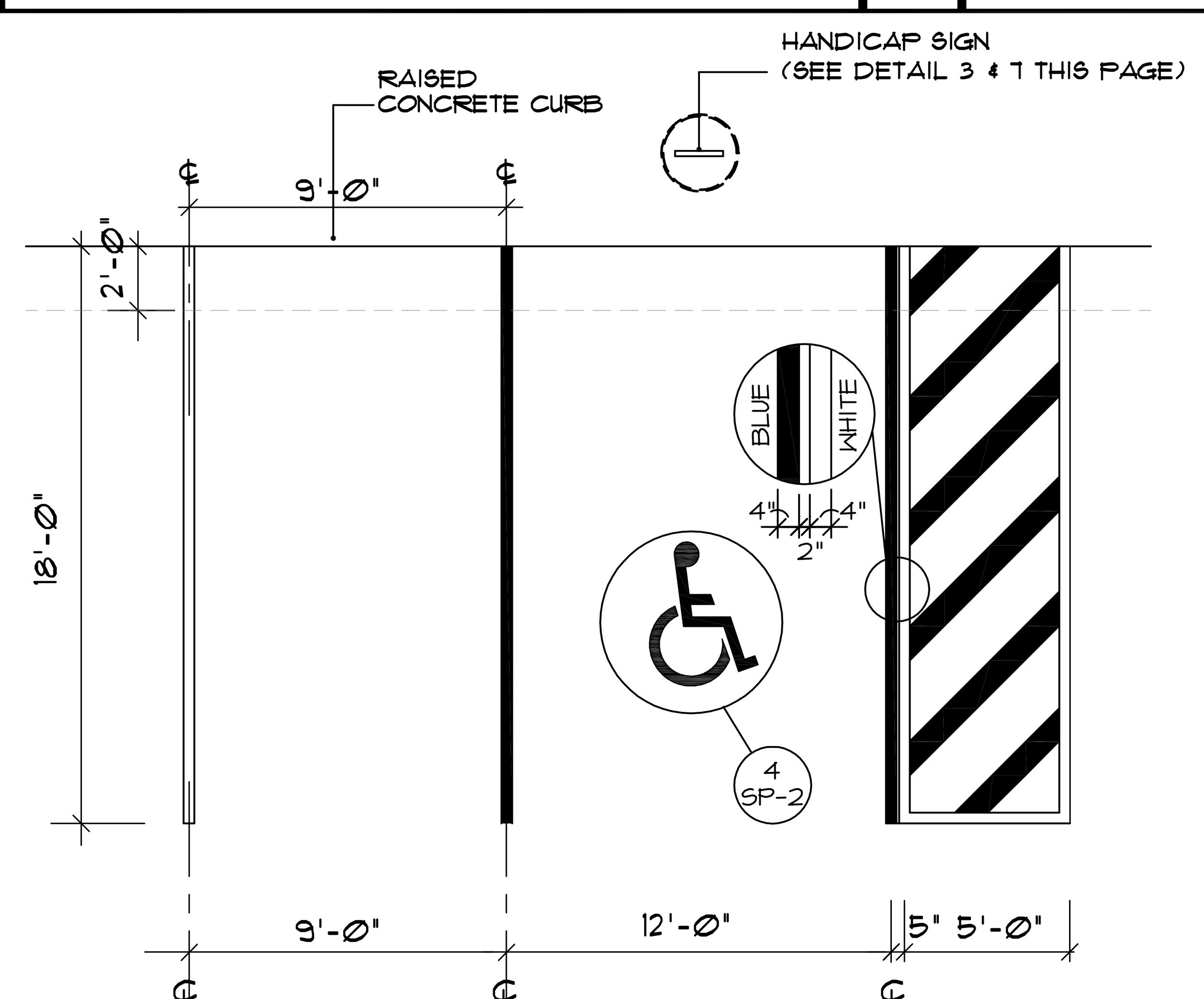
B- "DETECTABLE WARNING" ON EXTERIOR WALKING SURFACES SHALL BE "TRUNCATED CONES"

4 DETECTABLE WARNING

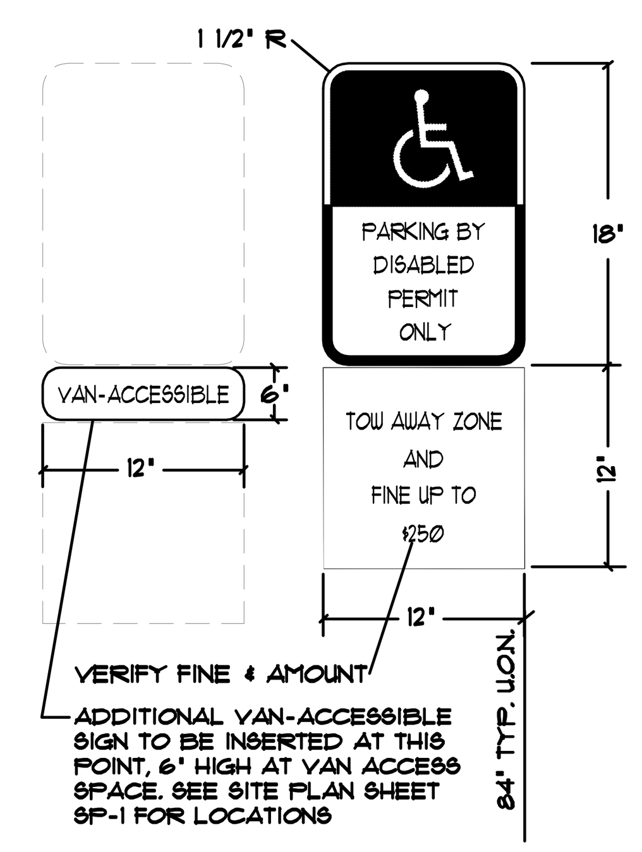


NOTE:
COORDINATE WET COLUMN SIZE WITH PLUMBING ENGINEER'S DETAILS AND REQUIREMENTS.

5 WET COLUMN DETAIL



6 TYP. PARKING SPACE DETAILS (NTS) (NTS)

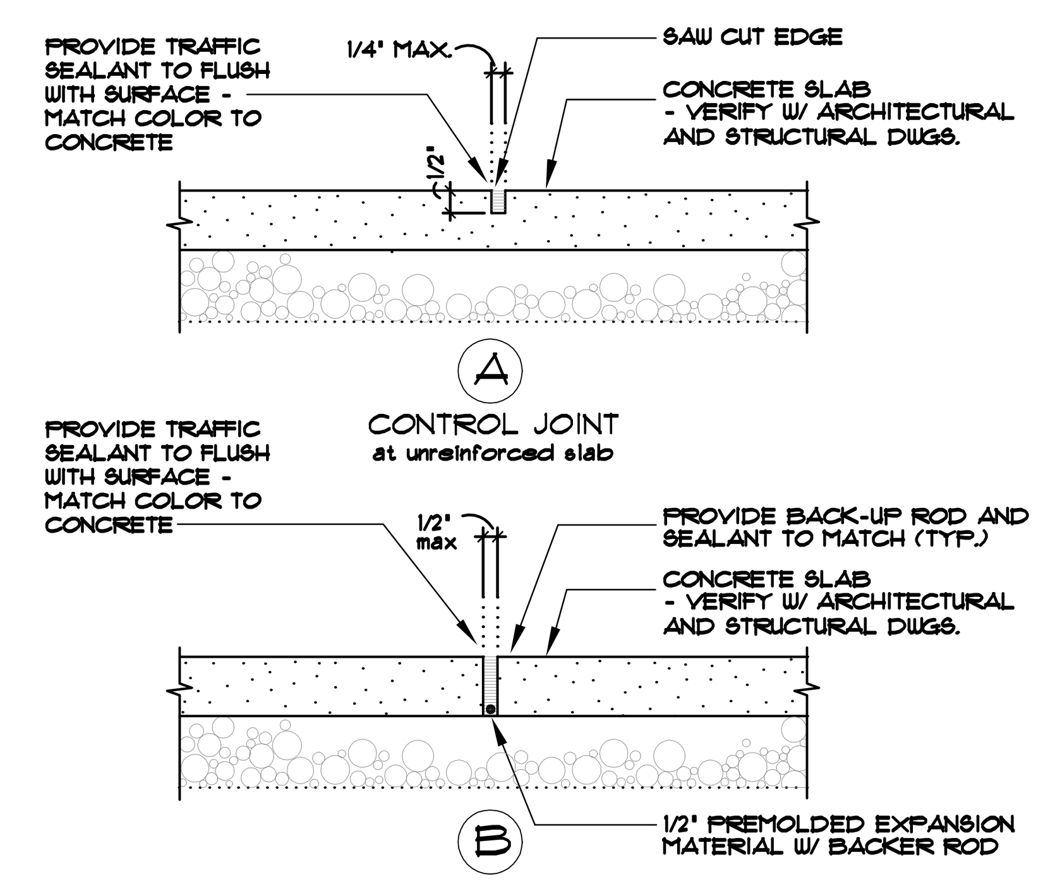


NOTES:
1. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
2. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. SIGN FACE SHOULD BE LOCATED NO FURTHER THAN 6' FROM THE FRONT OF EACH PARKING SPACE WITH A MINIMUM 3'-0" CLEAR IF MOUNTED ON POST. WHERE SIGN IS MOUNTED ON BLDG, SIGN SHALL BE MOUNTED ON BUILDING WALL AT LOCATIONS DEPICTED ON SITE PLAN.

EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY OR THE CAPTION "PARKING BY DISABLED PERMIT ONLY" OR BEARING BOTH SYMBOL AND CAPTION. SUCH SYMBOL SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAPPED PARKING SPACES MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE GOVERNING AGENCY.

(NTS)

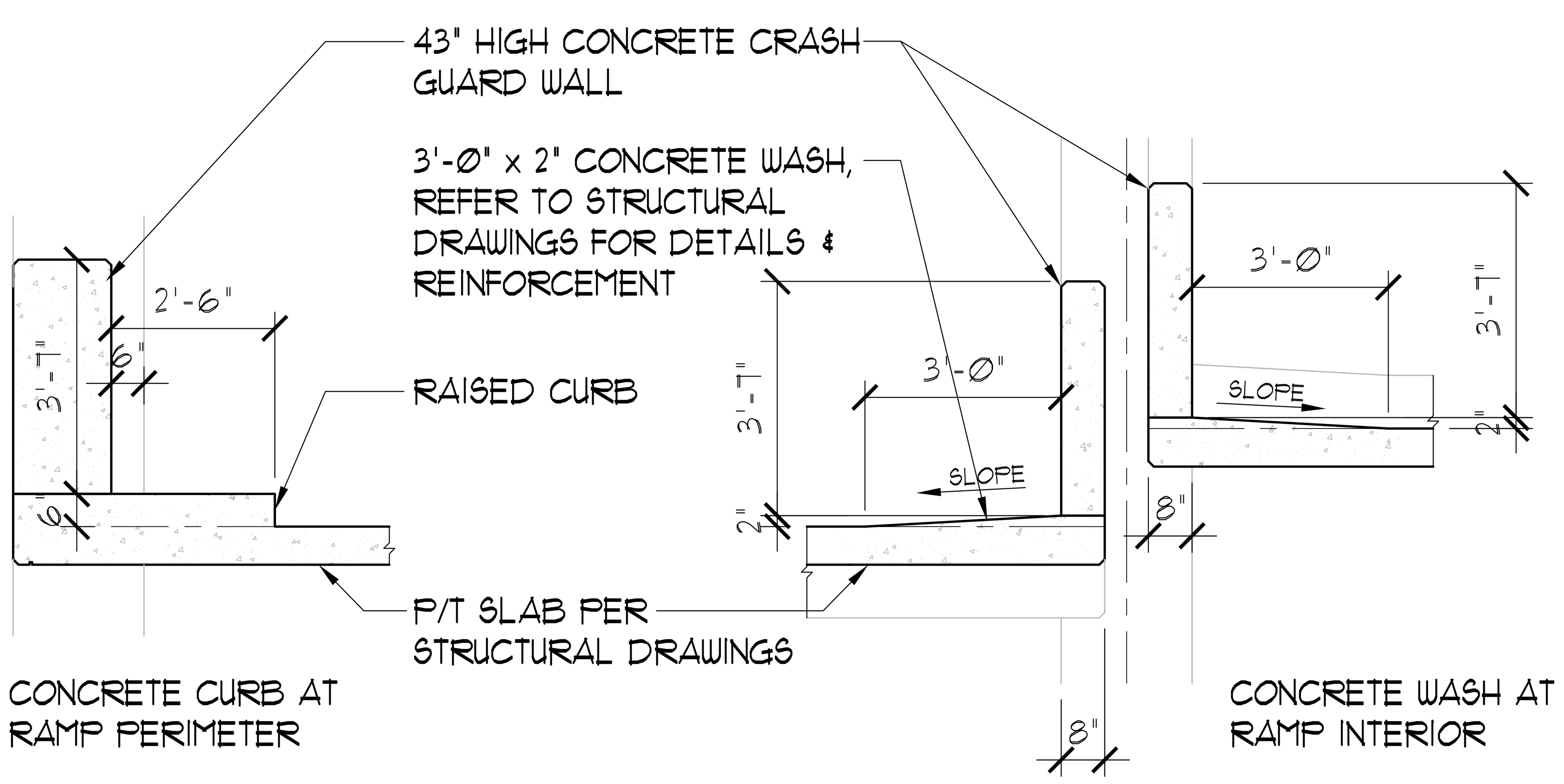
7 HANDICAPPED SIGNAGE DETAIL



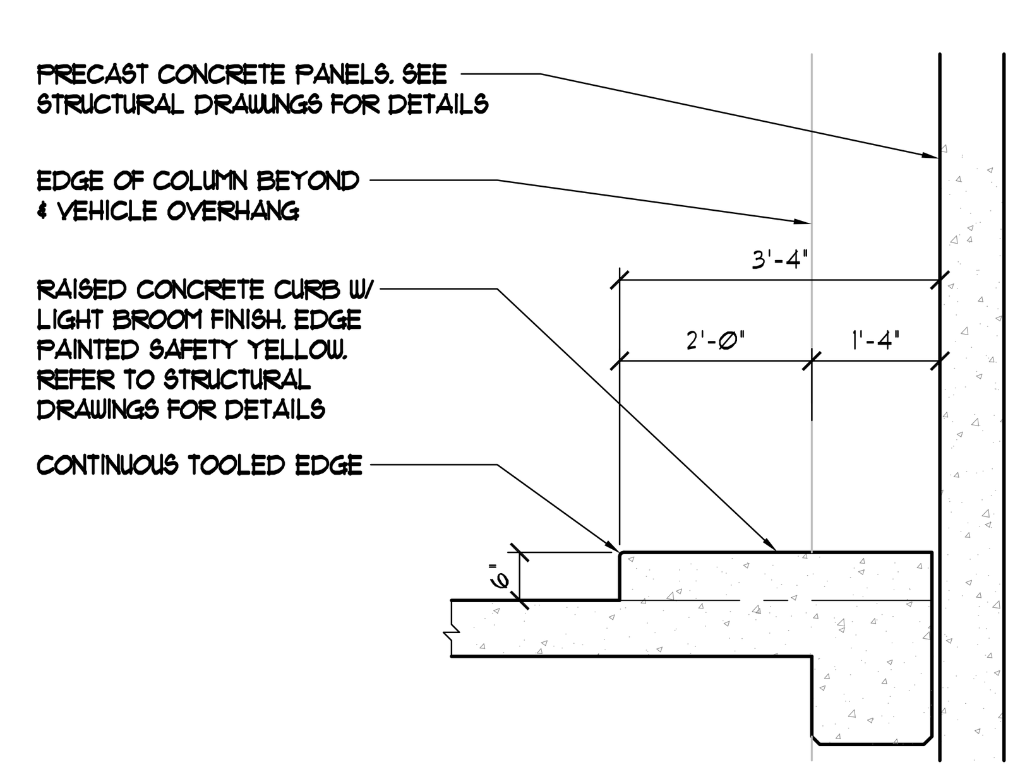
(NTS)

8 TYP. CONC. SLAB JOINTS

9 NOT USED



10 CONCRETE WASH DETAIL (NTS)



RAMP RAISED CONC. CURB AT PRECAST PANEL WALLS

11 RAISED CURB DETAIL @ RAMP (NTS)

12 NOT USED

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PROJECT TITLE
NEBRASKA GARAGE

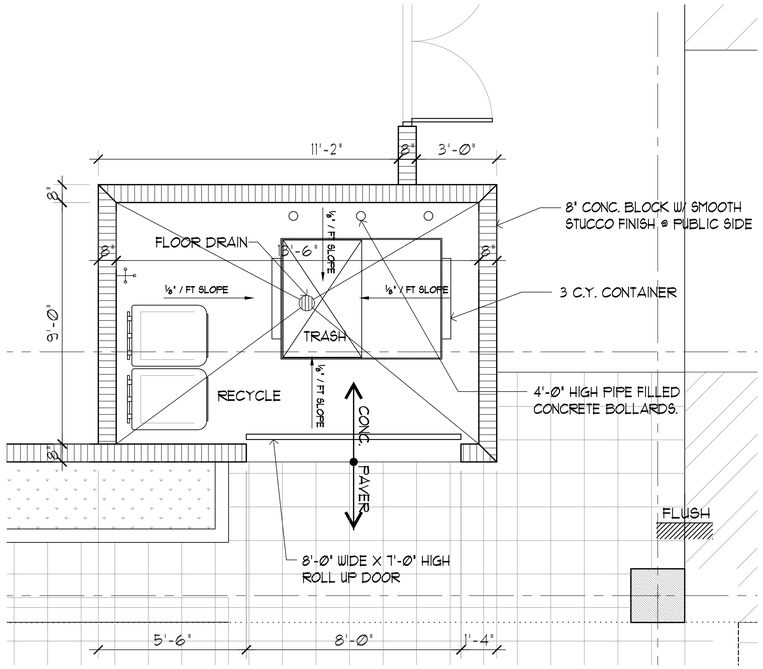
SHEET TITLE
SITE DETAILS

REVISIONS

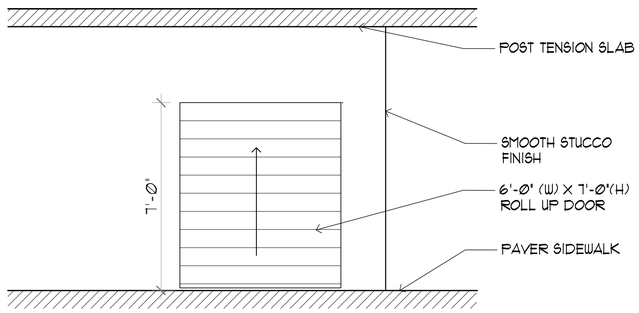
No.	DATE	DESCRIPTION
1	10/02/15	COMMENT REV.
4	12/05/16	FINAL TAC COMMENTS

PROJECT No.: 12106
DATE: 01-27-15
DRAWN BY: JAIME
CHECKED BY: JBK

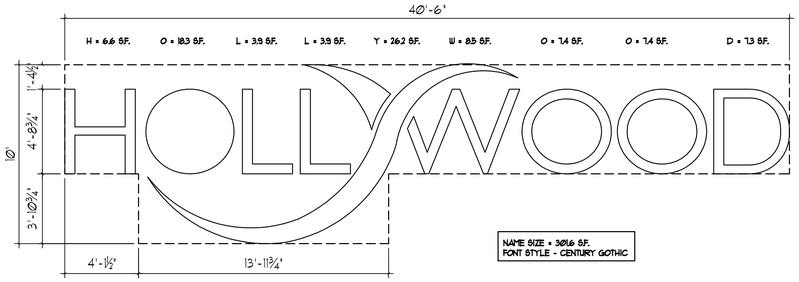
SHEET
SP-2

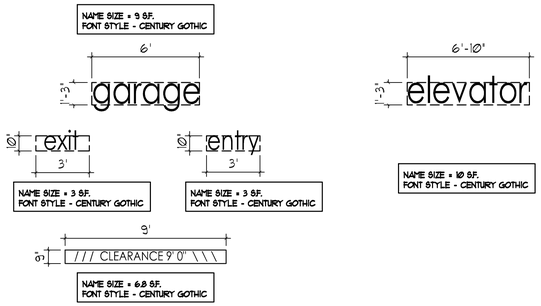


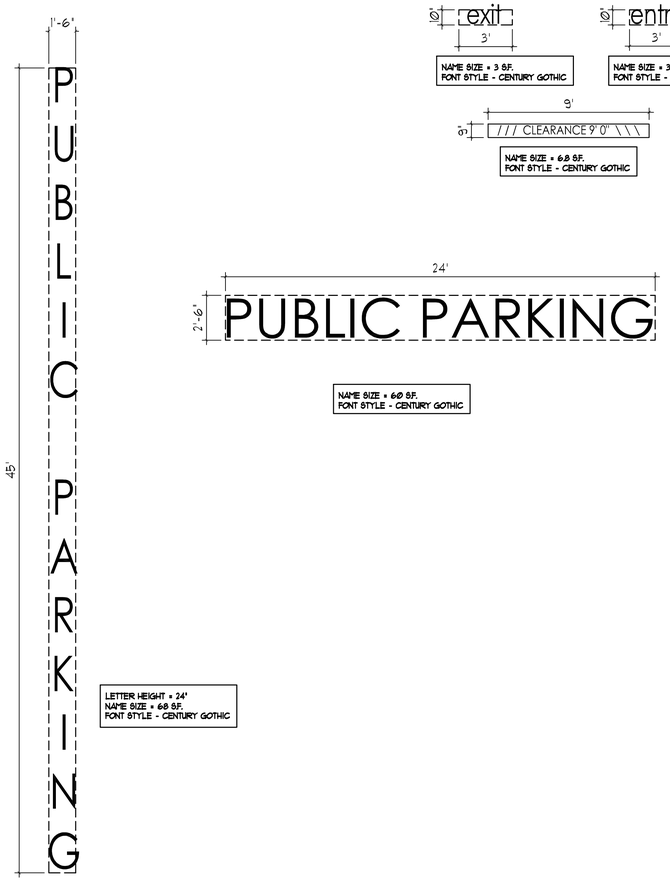
FLOOR PLAN



SOUTH ELEVATION







ALL SIGNAGE TO BE NEON BACK LIT PIN MOUNTED CHANNEL LETTERS

ALL SIGNAGE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF HOLLYWOOD ZONING AND LAND DEVELOPMENT CODE BASED ON THE BRT-25-C ZONING DISTRICT.

NOTE:
A SEPARATE SIGN PERMIT IS REQUIRED FOR EACH SIGN.
A SEPARATE ELECTRICAL PERMIT IS REQUIRED FOR SIGNS REQUIRING ILLUMINATION.

TURTLE LIGHTING ORDINANCE
PROJECT SHALL ADHERE TO THE NEW DEVELOPMENT LIGHTING STANDARDS OF CHAPER 108 "LIGHTING REQUIREMENTS FOR MARINE TURTLE PROTECTION" OF THE CITY OF HOLLYWOOD CODE OF ORDINANCE.

1 DUMPSTER AND RECYCLE ENCLOSURE **SCALE: 3/8" = 1'-0"**

2 SIGN DETAILS **SCALE: 1/4" = 1'-0"**

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PROJECT TITLE
NEBRASKA GARAGE

SHEET TITLE
SIGNS

TRASH ROOM

REVISIONS

No.	DATE	DESCRIPTION
1	10/02/15	COMMENT REV.
3	11/16/16	TAC REVISION
4	12/05/16	FINAL TAC COMMENTS

PROJECT No.: 12106
DATE: 01-27-15
DRAWN BY: JAIME
CHECKED BY: JBK

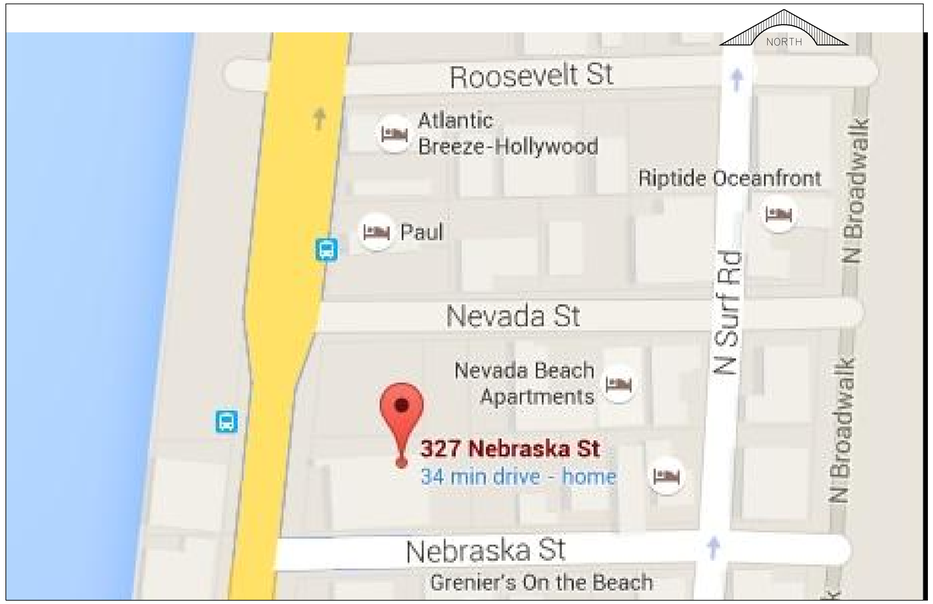
SHEET

SP-3

NEBRASKA GARAGE

327 NEBRASKA STREET
HOLLYWOOD, FLORIDA

CIVIL ENGINEERING PLANS



LOCATION MAP
N.T.S.

SHEET NO.	TITLE
1	COVER SHEET
2	PAVING, GRADING & DRAINAGE PLAN
3	WATER & SEWER PLAN
4 – 5B	CONSTRUCTION DETAILS
6 – 8	STORMWATER POLLUTION PREVENTION PLAN

APPROVALS		
AGENCY	APPROVAL DATE	PERMIT NUMBER

DRAWINGS MAY BE OUT OF SCALE DUE TO XEROX REPRODUCTION ERROR.

GGB Engineering, Inc.

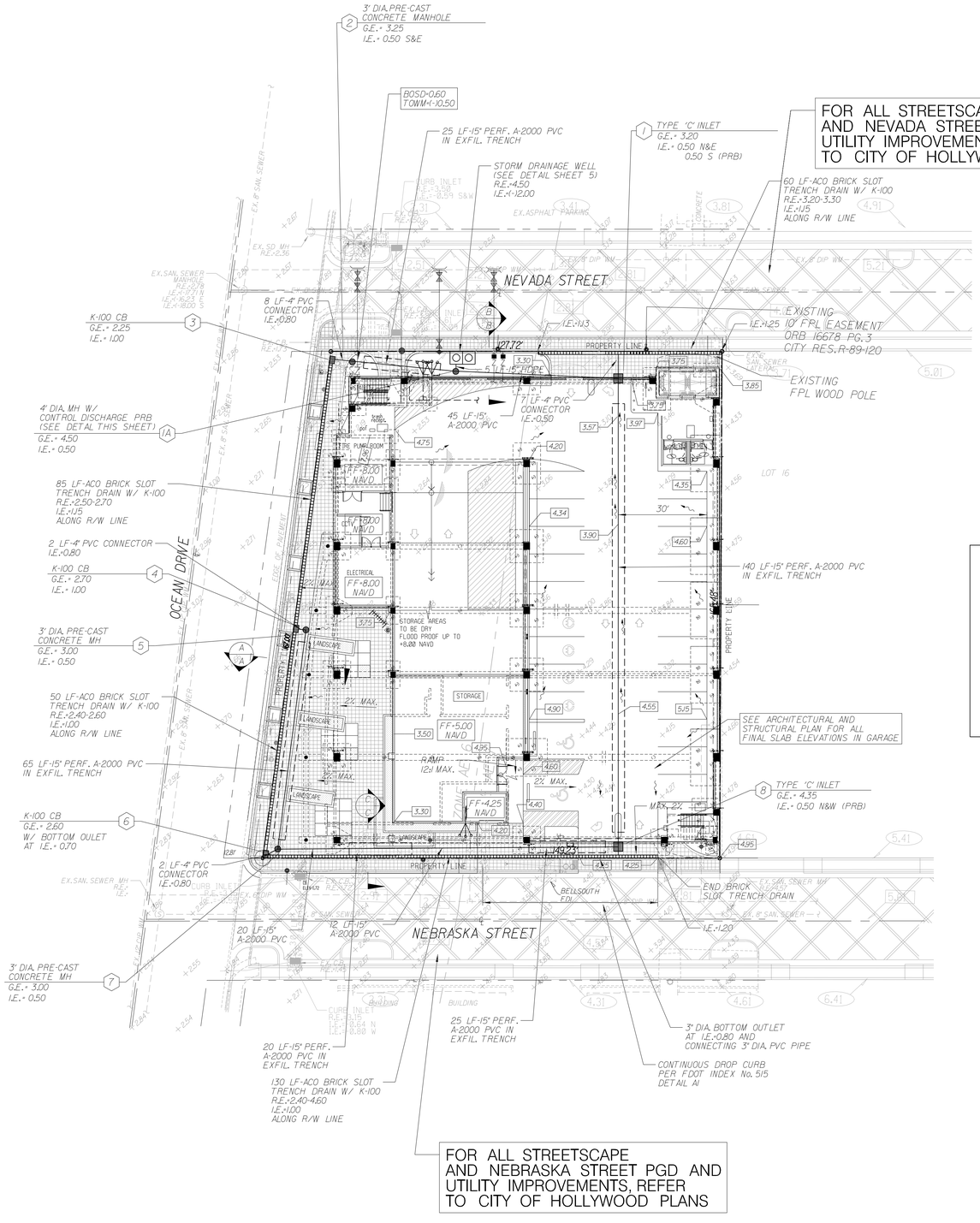
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS • CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 8118

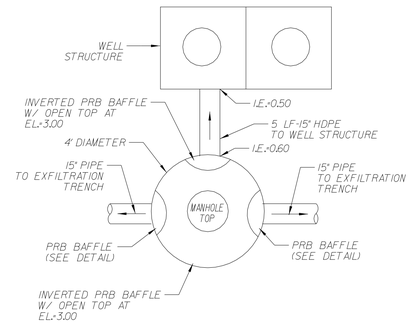
2699 Stirling Road, Suite C–202
Fort Lauderdale, Florida 33312

Phone: (954) 986–9899
Fax: (954) 986–6655

PROJECT No. 14-0608
DESIGN DATE: May 2015

GARY G. BLOOM, P.E.
FLA LIC No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER





STRUCTURE No. 1A DETAIL
N.T.S.

0 20' 40'
GRAPHIC SCALE

LEGEND

R.E.	RIM ELEVATION
G.E.	GRATE ELEVATION
I.E.	INVERT ELEVATION
	DIRECTION OF OVERLAND FLOW
F.F.=	FINISHED FLOOR ELEVATION (SEE PLAN)
	EXISTING OR FUTURE UTILITIES
3.50	PROPOSED FINISHED CONCRETE OR S/W GRADE
+3.44	EXISTING GRADE

NOTE:
ALL EXISTING AND PROPOSED GRADE ELEVATIONS REFER TO 1988 NAVD DATUM.

NOTE:
ALL PROPOSED STORM PIPING TO BE A-2000 PVC PIPING.

NOTE:
ALL PROPOSED CLEANOUT TO GRADE (COTG) TO HAVE TRAFFIC BEARING LID.

NOTE:
ALL PROPOSED BUILDING AREAS ARE TO BE DRY FLOOD-PROOFED TO 8.00' NAVD ELEVATION IN ACCORDANCE WITH FLORIDA BUILDING CODE AND ASCE 24 STANDARDS.

NOTE:
GARAGE CONSTRUCTION AND RIGHT-OF WAY WORK TO BE COORDINATED WITH CITY CRA STREETSCAPE PROJECT.

REVISIONS:
1. 3/20/16 REV. PER CITY OF HOLLYWOOD
2. 11/17/16 REV. PER CLIENT
3. 1/5/17 REV. PER CITY OF HOLLYWOOD
4. 1/23/17 REV. PER TAC
5.
6.
7.
8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT:
NEBRASKA GARAGE
HOLLYWOOD FLORIDA

TASK:
PAVING, GRADING AND DRAINAGE PLAN

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 81118
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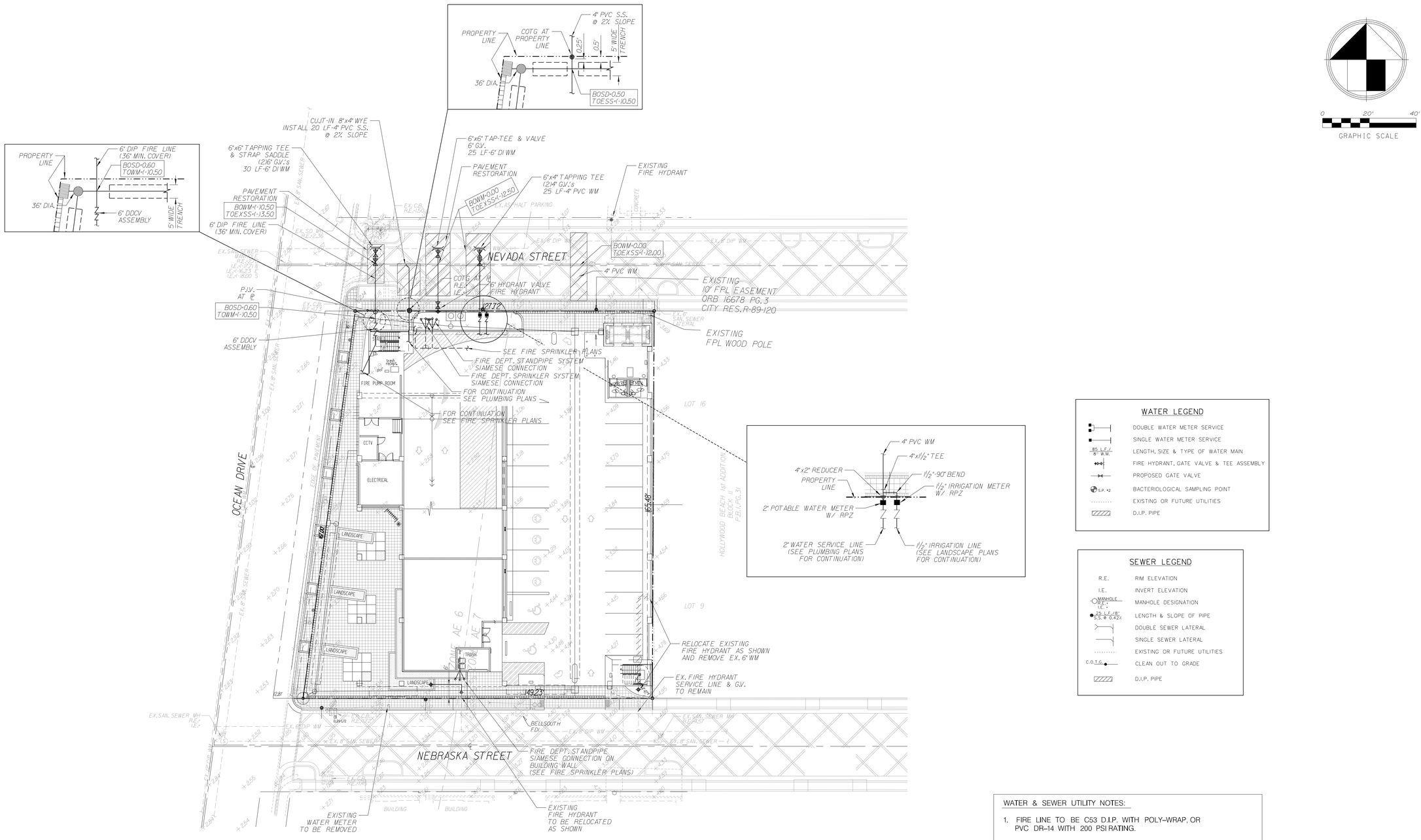
Fort Lauderdale, Florida 33312
Phone: (954) 986-9899
Fax: (954) 986-6655

DATE:	SCALE:
May 2015	1"=10'
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 2	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER



WATER LEGEND

- DOUBLE WATER METER SERVICE
- SINGLE WATER METER SERVICE
- 85 L.F./ 8" W.M. — LENGTH, SIZE & TYPE OF WATER MAIN
- FIRE HYDRANT, GATE VALVE & TEE ASSEMBLY
- PROPOSED GATE VALVE
- B.S.P. #2 — BACTERIOLOGICAL SAMPLING POINT
- EXISTING OR FUTURE UTILITIES
- D.I.P. PIPE

SEWER LEGEND

- R.E. — RIM ELEVATION
- I.E. — INVERT ELEVATION
- MANHOLE DESIGNATION I.E.=
- 25 L.F./8" S.S. @ 0.42% — LENGTH & SLOPE OF PIPE
- DOUBLE SEWER LATERAL
- SINGLE SEWER LATERAL
- EXISTING OR FUTURE UTILITIES
- C.O.T.G. — CLEAN OUT TO GRADE
- D.I.P. PIPE

WATER & SEWER UTILITY NOTES:

1. FIRE LINE TO BE C53 D.I.P. WITH POLY-WRAP, OR PVC DR-14 WITH 200 PSI RATING.
2. 2" NIBCO-SCOTT T-133 GATE VALVE (G.V.) REQUIRED FOR ALL NEW 2" WATER SERVICE LINES
3. CONTRACTOR TO FIELD VERIFY SIZE OF EXISTING LATERALS, 6" SEWER LATERAL CHANGE-OUT CAN BE PROVIDED IF EXISTING LINES ARE NOT SIZED AS INDICATED.
4. PAVEMENT RESTORATION PER MINIMUM CITY OF HOLLYWOOD STANDARDS AND REQUIREMENTS.

NOTE:
GARAGE CONSTRUCTION AND RIGHT-OF WAY WORK TO BE COORDINATED WITH CITY CRA STREETSCAPE PROJECT.

REVISIONS:
1. 3/20/16 REV. PER CITY OF HOLLYWOOD
2. 11/17/16 REV. PER CLIENT
3. 1/5/17 REV. PER CITY OF HOLLYWOOD
4. 1/23/17 REV. PER TAC
5.
6.
7.
8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT:
NEBRASKA GARAGE
HOLLYWOOD FLORIDA

TASK:
WATER AND SEWER PLAN

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 5118
2699 Stirling Road, Suite C-202
Fort Lauderdale, Florida 33312
Phone: (954) 986-4899
Fax: (954) 986-4665

DATE:	SCALE:
May 2015	1"=10'
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 3	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 59832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER

GENERAL NOTES

1. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAVE BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED WITH THE ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS.
2. UNDER FLORIDA STATUTES, THE CONTRACTOR MUST PROVIDE A 48 HOUR NOTIFICATION PRIOR TO ANY OPERATION WHICH WOULD "PIERCE THE EARTH'S SURFACE" WITH THE WORK STARTED WITHIN FIVE WORKING DAYS AFTER ALL UNDERGROUND UTILITIES HAVE BEEN IDENTIFIED. THE NOTIFICATION NUMBER IS A CALL SYSTEM STATEWIDE AT (800) 432-4770 . FAILURE TO COMPLY COULD RESULT IN FINES AND DAMAGES.

UNIVERSAL COLOR CODE FOR MARKING UNDERGROUND UTILITY LINES

RED	ELECTRIC
YELLOW	GAS-OIL
ORANGE	COMMUNICATION, CATV
BLUE	WATER
GREEN	SEWER
PINK	SURVEY MARKINGS
WHITE	PROPOSED EXCAVATION

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES:

   FLORIDA POWER AND LIGHT COMPANY
   BELL SOUTH
   COMCAST CATV
   CITY OF HOLLYWOOD

4. ALL ELEVATIONS ARE BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.
5. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR APPROVAL TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION FOR ALL MATERIALS USED ON THE PROJECT. APPROVED SHOP DRAWINGS FROM THE ENGINEER SHALL THEN BE SUBMITTED TO CITY OF HOLLYWOOD FOR THEIR APPROVAL. NO CONSTRUCTION SHALL COMMENCE UNTIL THE APPROVED SHOP DRAWINGS HAVE BEEN OBTAINED BY THE CONTRACTOR FROM THE ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING PAVEMENT, PIPES, CONDUITS, CABLES, ETC., AND LANDSCAPED AREAS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY.
7. THE CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS IN THE AREA AND ANY OTHER UNDERGROUND CONDUIT REQUIRED FOR FP&L, BELL SOUTH, IRRIGATION SYSTEM, ETC. PRIOR TO BEGINNING SUBGRADE. THE CONTRACTOR SHALL COORDINATE LOCATION OF ALL EXISTING UTILITIES WITH APPLICABLE UTILITY COMPANIES.
8. ALL EXISTING UTILITIES SHALL REMAIN ACTIVE UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY CASTINGS, INCLUDING VALVE BOXES, JUNCTION BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN AREAS OF CONSTRUCTION. ALL ADJUSTMENTS TO BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY.
10. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY TREE REMOVAL PERMITS FROM THE CITY OF HOLLYWOOD PRIOR TO COMMENCING WORK.
11. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SUPPLY THE ENGINEER OF RECORD WITH THE CERTIFICATION THAT ALL CONSTRUCTION AND MATERIALS MEET OR EXCEEDS THE DESIGN AND HAS BEEN INSTALLED PER THE DRAWINGS AND/OR AS-BUILT DRAWINGS.
12. COMPLIANCE WITH THE "TRENCH SAFETY ACT" IS REQUIRED FOR ALL EXCAVATIONS IN EXCESS OF 5 FOOT DEPTHS.

PAVEMENT MARKING AND SIGNING NOTES

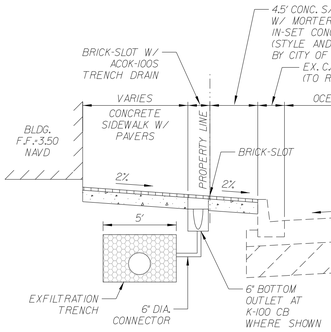
1. THERMOPLASTIC SHALL CONFORM TO THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SEE SECTION 711-MINIMUM THICKNESS 90 MILS (ALKYD ONLY).
2. ALL MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVISED FOR STREETS AND HIGHWAYS, AND FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
3. THERMOPLASTIC SHALL BE USED IN THE PUBLIC RIGHT-OF-WAY UNLESS OTHERWISE APPROVED BY CITY OF HOLLYWOOD. ALL ON-SITE PAVEMENT MARKINGS SHALL BE REFLECTORIZED PAINT.
4. THESE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.
5. ALL REFLECTIVE PAVEMENT MARKERS SHALL BE APPROVED BY CITY OF HOLLYWOOD BEFORE INSTALLATION.
6. REFLECTORS SHALL BE EQUALLY SPACED BUT NO MORE THAN 3 FEET APART.
7. THREE BLUE REFLECTORS SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL UNSUITABLE MATERIALS, SUCH AS MUCK, HARDPAN, ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M-145, FOUND WITHIN THE ROAD AND PARKING LOT AREA SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL AND REPLACED WITH THE SPECIFIED FILL MATERIAL IN MAXIMUM 1' LIFTS COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE WITH AASHTO T-99. THICKNESS OF LAYERS MAY BE INCREASED PROVIDED THE EQUIPMENT AND METHODS USED ARE PROVEN BY FIELD DENSITY TESTING TO BE CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.
3. ALL AREAS SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF 1 FOOT. ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR TO BE ADJUSTED SHALL BE SO DESIGNATED ON THE DRAWINGS.
4. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3, OR A-2-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL, NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND LIMEROCK, UTILITIES, EXCAVATION, ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.
6. ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.
7. WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE, PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE.
8. ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.
9. SITE GRADING ELEVATIONS SHALL BE WITHIN 0.1 FOOT OF THE REQUIRED ELEVATION AND ALL AREAS SHALL BE GRADED TO DRAIN.
10. ALL SUBGRADE SHALL HAVE AN LBR OF 40, UNLESS OTHERWISE NOTED, AND SHALL BE COMPACTED TO 100% MAXIMUM DRY DENSITY PER AASHTO T-99.
11. ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T-180 AND HAVE NOT LESS THAN 60% OF CARBONATES OF CALCIUM AND MAGNESIUM, UNLESS OTHERWISE DESIGNATED. ALL LIMEROCK SHALL BE PRIMED.
12. ASPHALT SHALL BE OF THE TYPE DESIGNATED ON THE DRAWINGS.
13. PLASTIC FILTER FABRIC SHALL BE MIRAFI, TYPAR OR EQUAL CONFORMING TO SECTION 985 OF THE FDOT STANDARD SPECIFICATIONS.
14. CONCRETE SIDEWALK SHALL BE 4 INCHES THICK ON COMPACTED SUBGRADE, WITH 1/2 INCH EXPANSION JOINTS PLACED AT A MAXIMUM OF 75 FEET. CRACK CONTROL JOINTS SHALL BE 5 FEET ON CENTER. THE BACK OF SIDEWALK ELEVATION SHALL EQUAL THE CROWN OF ROADWAY, UNLESS OTHERWISE SPECIFIED BY LOCAL CODES, OR SHOWN ON THE DRAWINGS. ALL CONCRETE SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6 INCHES THICK WITH 6" X 6" (10G.) WELDED WIRE MESH REINFORCEMENT.
15. PIPE SPECIFICATIONS: THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS:

RCP	-	REINFORCED CONCRETE PIPE, ASTM DESIGNATION C-76, CLASS III, WALL THICKNESS "B", LATEST EDITION.
CMP	-	CORRUGATED METAL (ALUMINUM) PIPE, ASTM DESIGNATION M-196 CMP (SMOOTH LINED) = CORRUGATED METAL ALUMINUM PIPE (SMOOTH LINES), ASTM DESIGNATION M-196
SCP	-	SLOTTED CONCRETE PIPE, FDOT SECTIONS 941 AND 942.
PVC	-	POLYVINYLCHLORIDE PIPE
PCMP	-	PERFORATED CMP, FDOT SECTION 945
DIP	-	DUCTILE IRON PIPE
HDPEP	-	SMOOTH LINED HIGH DENSITY POLYETHYLENE, AASHTO M 294 TYPE S

16. ASPHALTIC CONCRETE TYPE S-III SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 331-1 THROUGH 331-6 OF F.D.O.T. STANDARD SPECIFICATIONS. ASPHALTIC CONCRETE TYPE S-1 SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 333-1 THROUGH 333-6 OF F.D.O.T. STANDARD SPECIFICATIONS.
17. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
18. CONCRETE FOR PRECAST MANHOLE AND CATCH BASINS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
19. REINFORCING STEEL FOR MANHOLES AND CATCH BASINS SHALL CONFORM TO ASTM SPECIFICATION A-615 AND A-305, LATEST REVISION.
20. ALL RE-BAR SPLICES IN CONCRETE STRUCTURES SHALL HAVE A MINIMUM LAP OF 24 BAR DIAMETERS.
21. ALL JOINTS IN CONCRETE STRUCTURES SHALL BE FINISHED WATER TIGHT.
22. ALL SPACES AROUND PIPING ENTERING OR LEAVING MANHOLES AND CATCH BASINS SHALL BE COMPLETELY FILLED WITH 2:1 CEMENT MORTAR.
23. JOINTS IN CORRUGATED ALUMINUM PIPE SHALL EMPLOY CORRUGATED METAL BANDS OF SIMILAR METAL AND CORRUGATIONS WITH NEOPRENE, RAM-NEK, OR BITUMASTIC GASKETS INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
24. REINFORCED CONCRETE PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C-76, CLASS III, WALL THICKNESS "B", LATEST REVISION, AND AS MODIFIED BY SECTION 941 OF THE FLORIDA DOT STANDARD SPECIFICATIONS, LATEST REVISION.
26. ALL HANDICAP SPACES, RAMPS, AND ACCESS AREAS SHALL COMPLY IN STRICT ACCORDANCE WITH THE "AMERICAN DISABILITY ACT" (ADA) (28 CFR PART 36), AND "ACCESSIBILITY BY HANDICAPPED PERSONS", CHAPTER 553, PART V, FLORIDA STATUTES. ANY DISCREPANCY SHALL BE CALLED TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION.
27. JOINTS IN HDPE PIPE SHALL BE ADS PRO LINK ST, HANCOR SURE-LOK OR APPROVED EQUAL.



SECTION "A–A"
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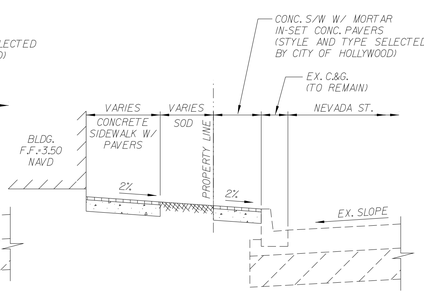

SECTION "B–B"
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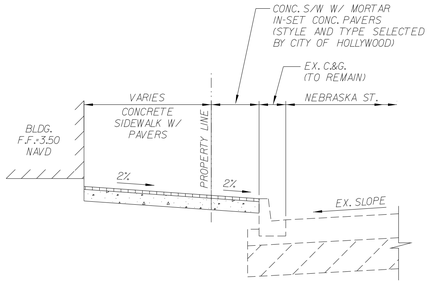

SECTION "C–C"
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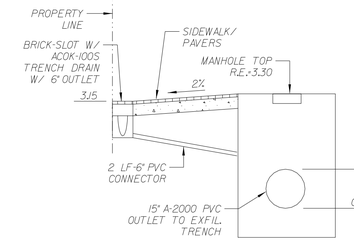

SLOT DRAIN CONNECTOR DETAIL
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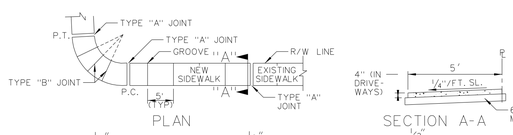
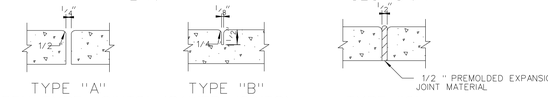
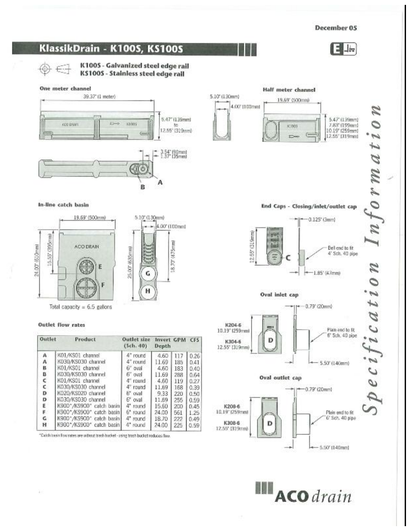


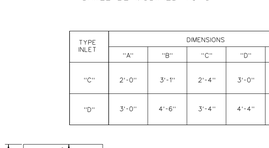


NOTES

1. ALL CONCRETE SHALL BE 3000 PSI, 4" THICK 6" THICK (MIN.) AT DRIVEWAYS ONLY.
2. TYPE "A" JOINT TO BE USED AT P.C. AND PT OF CURVES AND JUNCTION OF EXISTING AND NEW SIDEWALK
3. TYPE "B" JOINT TO BE USED AT 5'-0" CENTER TO CENTER ON SIDEWALKS.
4. TYPE "C" JOINT TO BE USED WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES.
5. SIDEWALK SLOPES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT (A.D.A.).
6. SIDEWALK SHALL BE CONSTRUCTED TO MEET THE ELEVATION OF THE ULTIMATE SECTION.
7. ALL MUCK AND / OR UNSUITABLE MATERIAL MUST BE REMOVED IN ITS ENTIRETY TO 3 FEET BEYOND LIMITS OF SIDEWALK AND REPLACE WITH CLEAN FILL.

CONCRETE SIDEWALK DETAIL

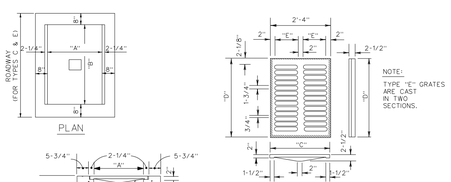


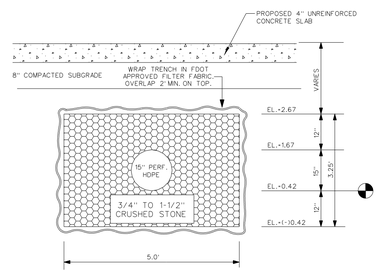


TYPE "D" CURB

NOTE: PLACES WHERE TYPE 'D' CURB ARE UTILIZED IN LIEU OF WHEELSTOPS THE STANDARD VERTICAL HEIGHT OF 6" SHALL BE MODIFIED TO 5"

TYPE INLET	DIMENSIONS					MAX. DIA. PIPE	
	"A"	"B"	"C"	"D"	"E"	"A"	"B"
"C"	2'-0"	3'-1"	2'-4"	3'-0"	11"	18"	30"
"D"	3'-0"	4'-6"	3'-4"	4'-4"	1'-5"	30"	48"





INLET NOTES

BEVELED EDGES: ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".

FOUNDATION MATERIAL: WHERE MATERIAL UNSATISFACTORY FOR FOUNDATION IS ENCOUNTERED, ALL SUCH MATERIAL MUST BE REMOVED DOWN TO SATISFACTORY MATERIAL AND BACKFILLED TO SUBGRADE WITH CLEAN SAND.

GRATES: CAST IRON IN ACCORDANCE WITH F.D.O.T. SPECIFICATIONS.

INLET TYPES: INLETS ARE TO BE CONSTRUCTED TO THE DIMENSIONS SHOWN HEREON. TYPE "E MOD." IS A TYPE "E" TURNED 90° TO RECEIVE R.C.P. UP TO 48" DIAMETER. INLETS RECEIVING PIPE LARGER THAN 48" DIAMETER SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARDS. SEE F.D.O.T. STANDARD INDEXES 200, 201, & 232.

MATERIAL: INLET WALLS AND BASES MAY BE EITHER CAST-IN-PLACE CLASS I, 2500 P.S.I. CONCRETE OR PRECAST CLASS II, 4000 P.S.I. CONCRETE.

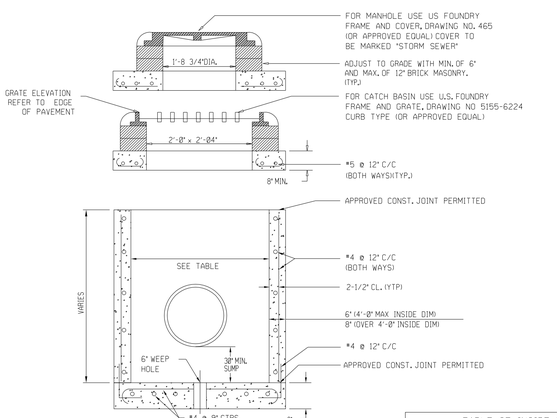
POLLUTION CONTROL DEVICES: "SPECIAL" INLETS SHALL HAVE POLLUTION CONTROL DEVICE INSTALLED, CONSISTING OF HALF-ROUND GALVANIZED STEEL PLATE, OPEN AT THE BOTTOM, WELDED CLOSED AT TOP (OPTIONAL).

LOCKDOWN: PROVIDE EYEBOLT PER F.D.O.T. STANDARD INDEX 201.

BACKFILL NOTES

COMPACT TRENCH BACKFILL AND SOIL WITHIN MIN. 5' OF TRENCH TO MIN. 95% OF MAX. DRY DENSITY PER ASTM D-1557.

EXFILTRATION TRENCH

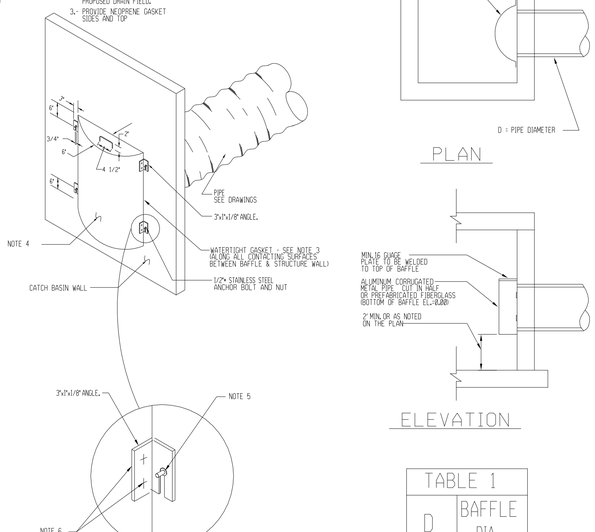


DRAINAGE STRUCTURES
N.T.S.

TABLE OF INSIDE DIMENSIONS FOR RECTANGULAR STRUCTURES

STRUCTURE TYPE	INLET	MANHOLE
B	3'-0" X 3'-0"	3'-0" X 3'-0"
C	3'-0" X 4'-0"	3'-0" X 4'-0"
D	3'-0" X 5'-0"	3'-0" X 5'-0"
F	4'-0" X 4'-0"	4'-0" X 4'-0"
G	4'-0" X 5'-0"	4'-0" X 5'-0"
H	5'-0" X 6'-0"	5'-0" X 6'-0"
J	6'-0" X 6'-0"	6'-0" X 6'-0"
K	4'-0" X 6'-0"	4'-0" X 6'-0"
L	3'-0" X 6'-0"	3'-0" X 6'-0"
M	5'-0" X 5'-0"	5'-0" X 5'-0"

DRAINAGE STRUCTURES SECTION DETAILS



BRACKET DETAIL

TABLE 1	
D	BAFFLE DIA.
10"	15"
15"	24"
18"	30"
24"	36"
30"	48"
36"	54"

POLLUTION RETARDANT BASIN DEBRIS BAFFLE DETAIL

REVISIONS: 1. 2. 3. 4. 5. 6. 7. 8.

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Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT: NEBRASKA GARAGE FLORIDA
TASK: HOLLYWOOD
CONSTRUCTION DETAILS

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CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 31818
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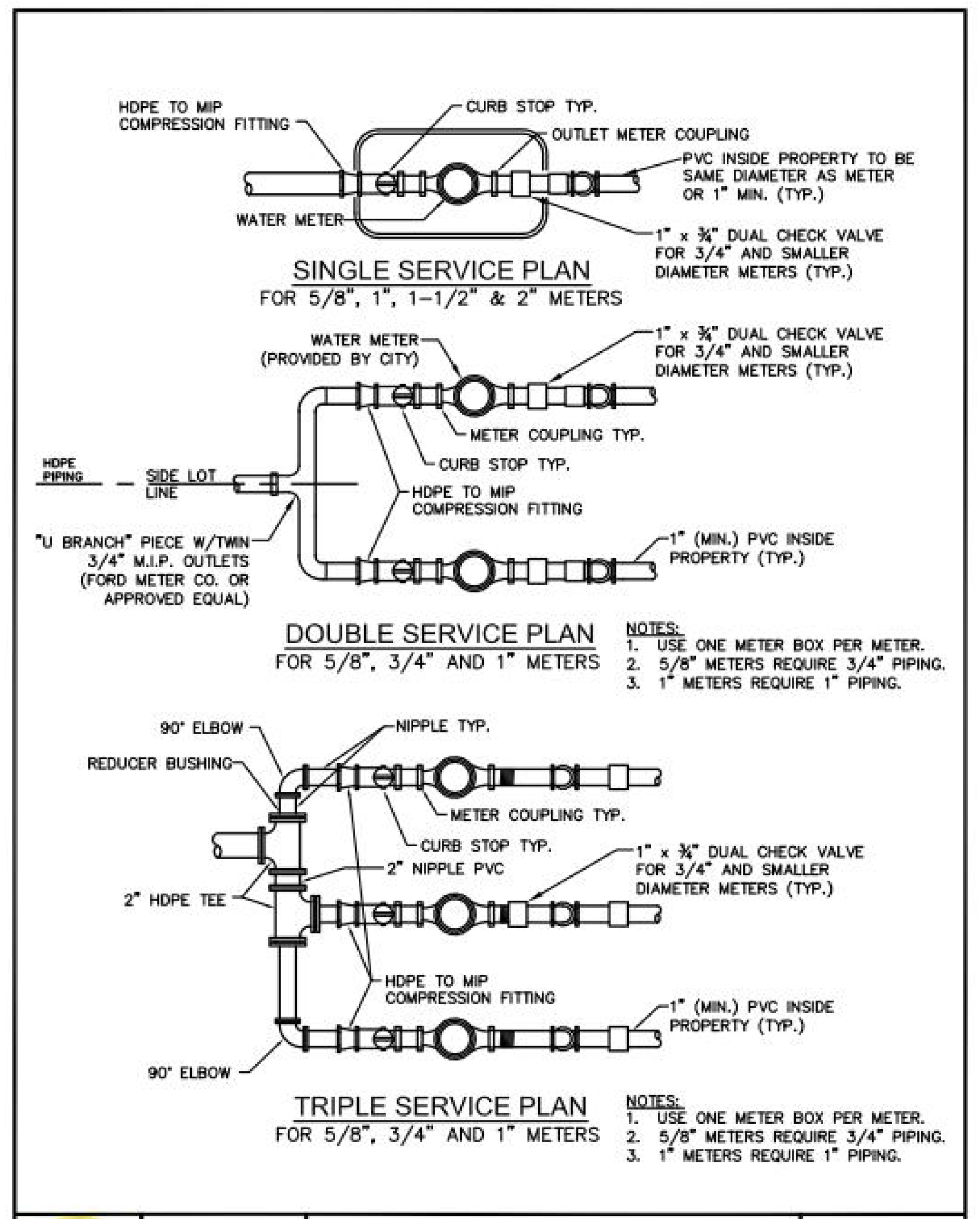
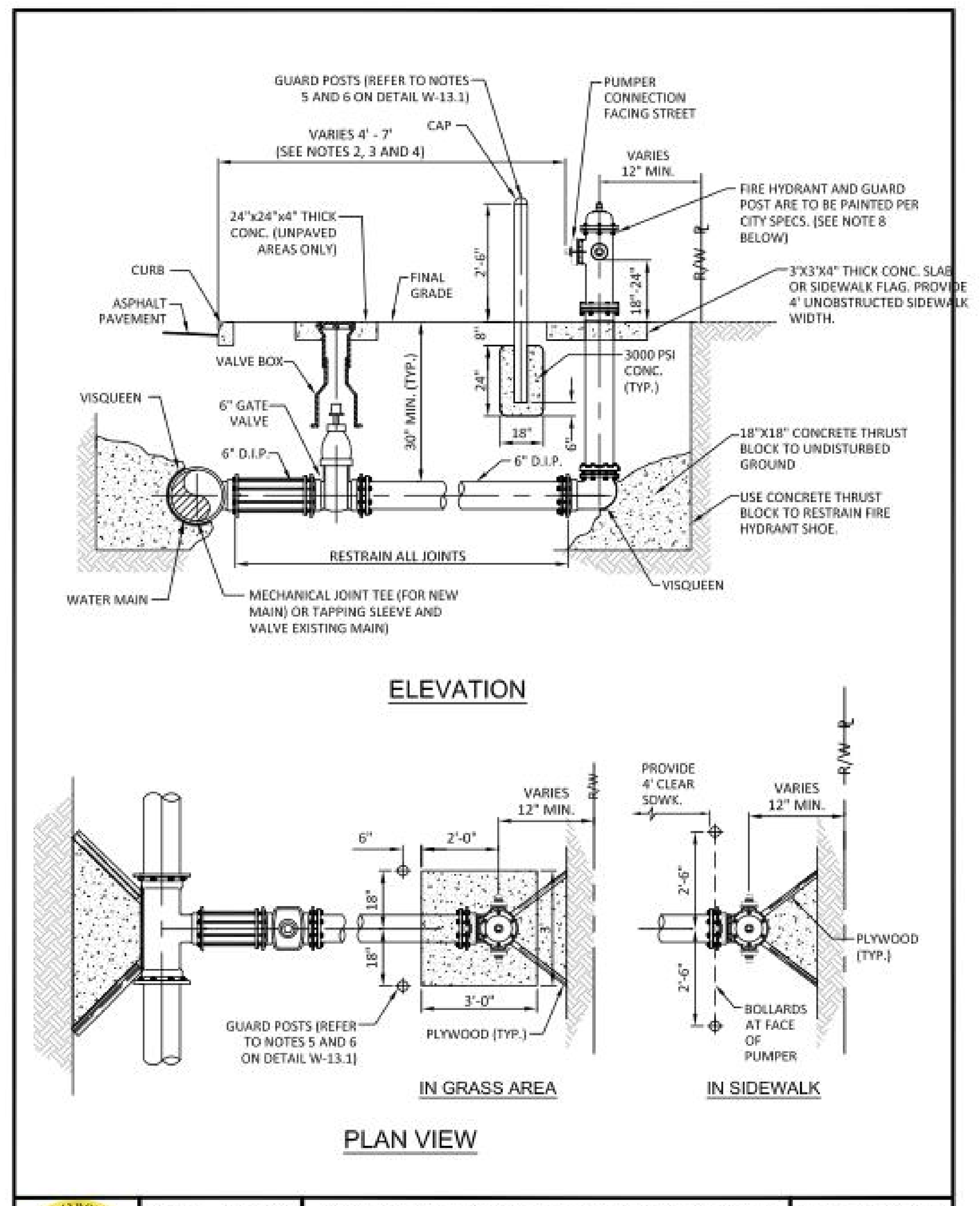
DATE:	SCALE:
May 2015	N.T.S.
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 4	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER

FILE: //ggbserver/projects/2013/13-0114/13014 dtl01.dgn DATE: Nov. 13, 2013



TYPICAL 5/8", 1", 1-1/2" AND 2" METER INSTALLATION — W-06

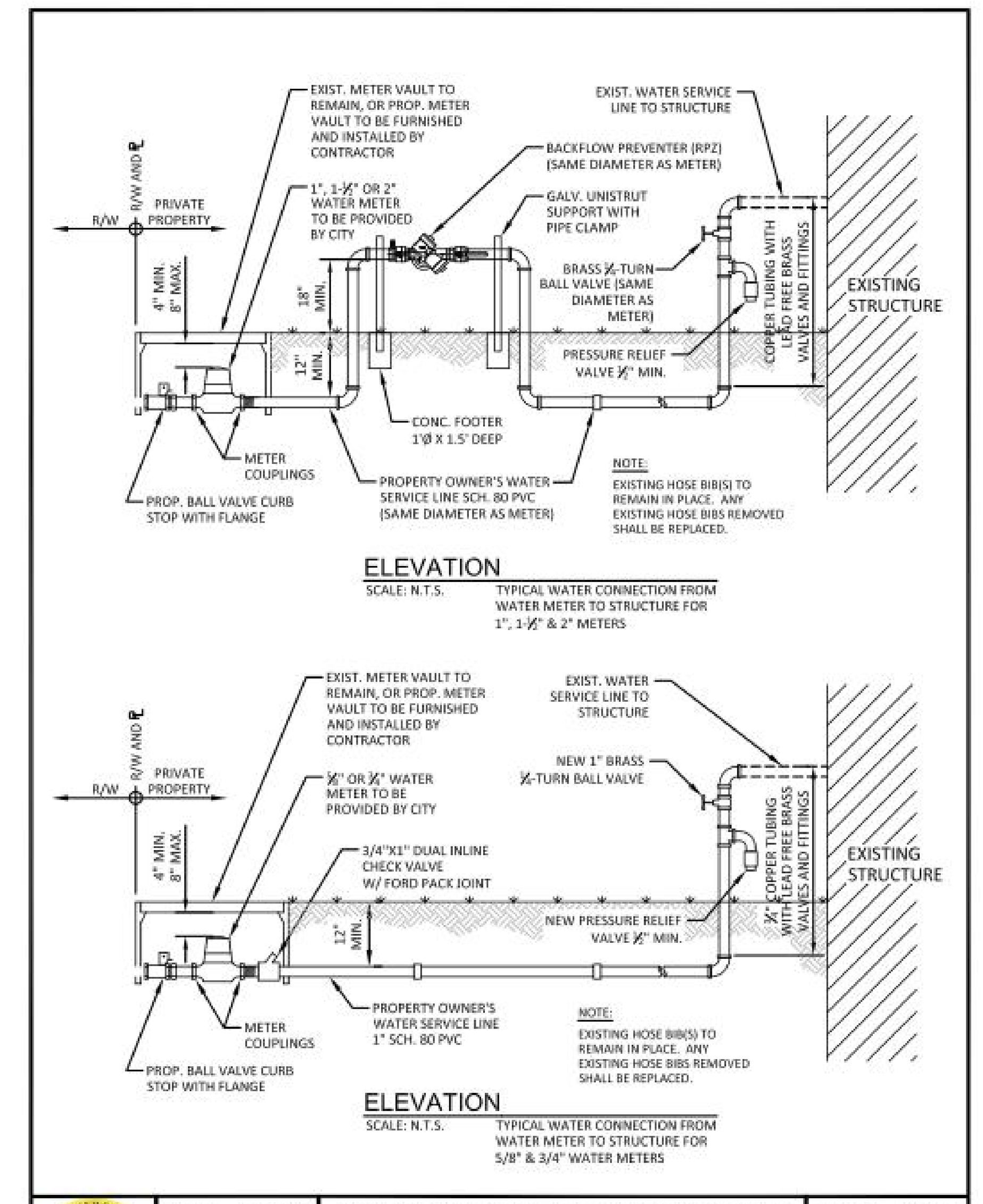


TYPICAL FIRE HYDRANT INSTALLATION — W-13

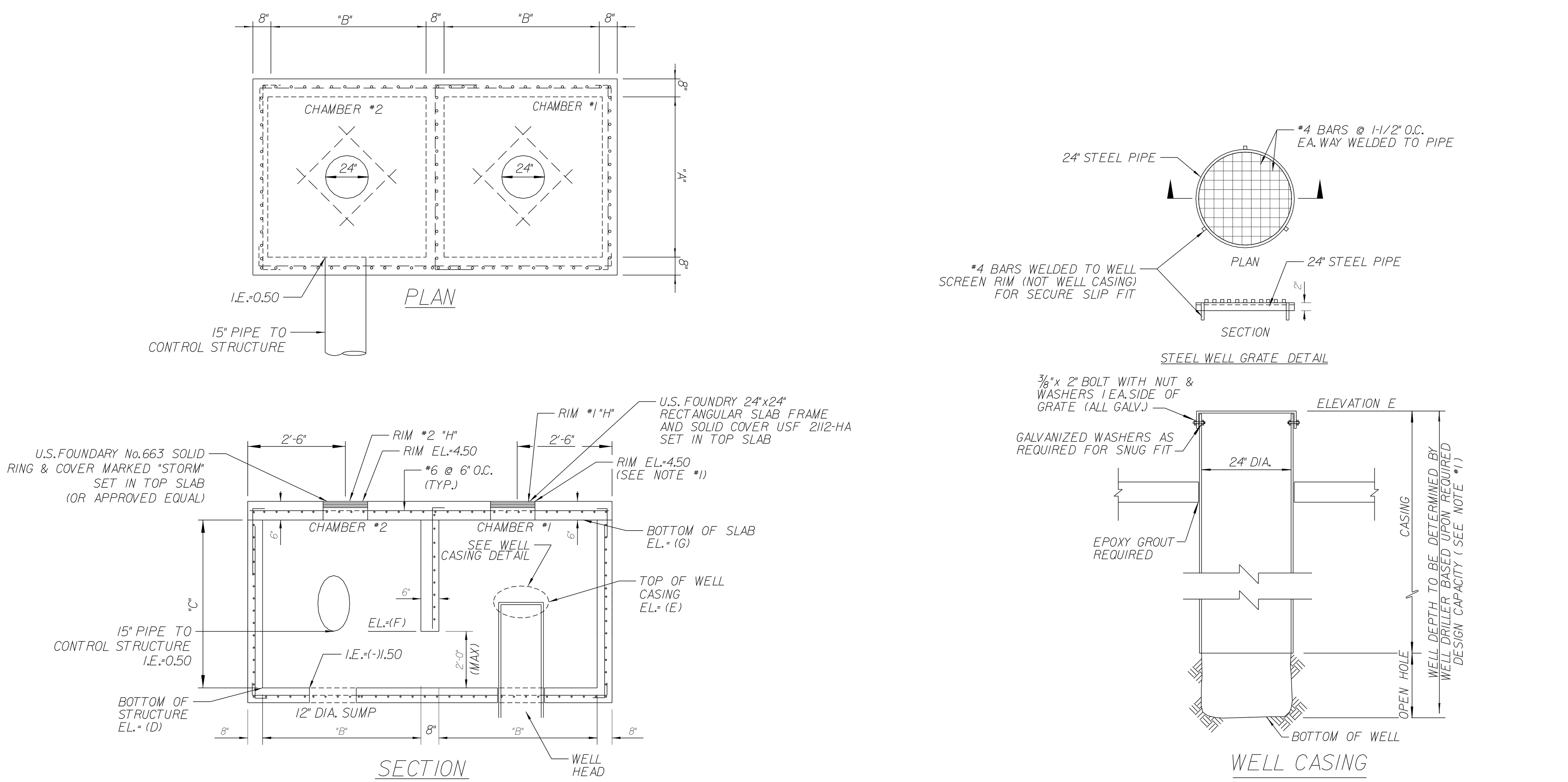
NOTES:

1. IN ALL CASES, PROVIDE 4' UNOBSTRUCTED SIDEWALK CLEAR OF THE FIRE HYDRANT AND BOLLARDS.
2. FIRE HYDRANTS SHALL BE LOCATED BETWEEN 4' AND 7' FROM THE FACE OF CURB.
3. FIRE HYDRANTS SHALL NOT BE LOCATED WITHIN A RADIUS OR WITHIN FDOT CLEAR DRIVING ZONE.
4. WITHIN FDOT R/W, WHERE SPACE IS RESTRICTED THE FIRE HYDRANT MAY BE LOCATED 2' FROM THE FACE OF THE CURB AS LONG AS THERE IS A MINIMUM 4' UNOBSTRUCTED SIDEWALK BEHIND THE HYDRANT, AND THE HYDRANT BASE IS 4" OR LESS FROM GRADE IN ACCORDANCE WITH F.D.O.T. INDEX 700.
5. GUARD POSTS SHALL NOT BE ALLOWED WITHIN FDOT R/W.
6. OTHER THAN FDOT R/W, GUARD POSTS SHALL BE INSTALLED AS REQUIRED FOR SAFETY OR AS APPROVED BY THE DEPT. OF PUBLIC UTILITIES. IN SIDEWALK, LOCATE GUARD POSTS AT THE FACE OF THE PUMPER AND 2'-6' LEFT/RIGHT OF ℄ OF THE FIRE HYDRANT.EXTRA POSTS MAY BE REQUIRED IN INDUSTRIAL AND CONGESTED TRAFFIC AREAS. (4 POSTS MAX.)
7. FIRE HYDRANT CONCRETE SLAB AND CONCRETE GUARD POST FOOTINGS SHALL BE DIFFERENT POURS.
8. THE FIRE HYDRANT BONNET, OPERATING NUT, HOLD-DOWN NUT, PUMPER CAP AND HOSE CAPS SHALL BE PAINTED GREEN, AND THE HYDRANT UPPER BARREL SHALL BE PAINTED SILVER IN ACCORDANCE WITH CITY SPECIFICATIONS.

DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL — TYPICAL FIRE HYDRANT NOTES — W-13.1



TYPICAL WATER SERVICE FROM METER TO STRUCTURE FOR 5/8" THROUGH 2" METERS — W-10



WELL STRUCTURE No. 1

NOTES:

1. MIN. DRAINAGE WELL CAPACITY REQUIRED IS 269 GPM FER FOOT OF HEAD.
2. A CERTIFIED WELL DRILLER SHALL DEVELOP THE WELL TO A DEPTH AT WHICH THE WATER CONTAINS A MINIMUM 10,000 PPM OF TOTAL DISSOLVED SOLIDS
3. WELL DRILLER SHALL OBTAIN A D.E.P. CLASS V, GROUP 5 PERMIT AND PROVIDE THE ENGINEER WITH COPY OF PERMIT.
4. WELL DRILLER SHALL PROVIDE THE ENGINEER WITH CERTIFICATION OF CAPACITY AND COMPLETION OF CONSTRUCTION UPON COMPLETION OF INSTALLATION.
5. CONTRACTOR SHALL PROVIDE A BASE BID FOR THE EXPECTED WELL DEPTH (100' MIN, PROVIDED BY WELL DRILLER,) WITH AN ADD/DEDUCT FOR EVERY FOOT ABOVE OR BELOW THE BASE BID.

WELL STRUCTURE NOTES:

1. SEE PLAN FOR RIM OR GRATE ELEVATIONS.
2. TOP SLAB OPENINGS TO HAVE ADDITIONAL No.8 BARS AROUND OPENINGS, UNLESS OTHERWISE SPECIFIED BY FABRICATOR.
3. PLACEMENT OF RING AND COVER ACCESSING EACH CHAMBER SHALL BE AS DESIGNED ON PLAN. CHAMBERS TO HAVE U.S.F. 663 RING AND AA COVER .
4. TOP SLAB OPENINGS SIZES WITHIN EACH CHAMBER SHALL BE AS REQUIRED BASED UPON INSTALLATION OF RING & COVER
5. STEEL REINFORCEMENT AND SLAB AND WALL TICKENESS SHALL BE RESPONSIBILITY OF STRUCTURE FABRICATOR PER PLAN DESIGN AND LAYOUT CONDITIONS.SITE CONTRACTOR TO PROVIDE STRUCTURE FABRICATOR WITH LOADING CONDITIONS ASSOCIATED WITH CONSTRUCTION EQUIPTMENT (TOWER CRANE.BACKHOE/FRONT END LOADER/EC.) TO WHICH THESE STRUCTURES MAY BE SUBJECT TO DURING THE DURATION OF CONSTRUCTION.

WELL STRUCTURE SCHEDULE

STRUCTURE NUMBER	DIMENSION (FT)			ELEVATION NAVD					CASING DIAMETER (IN)	WEIR CREST EL. (NGVD)
	A	B	C(*)	D	E	F	G	H		
S-1	3.5'	3.5'	5.50	(-)1.50	2.00	0.50	4.00	4.50	24	N/A

NOTES:

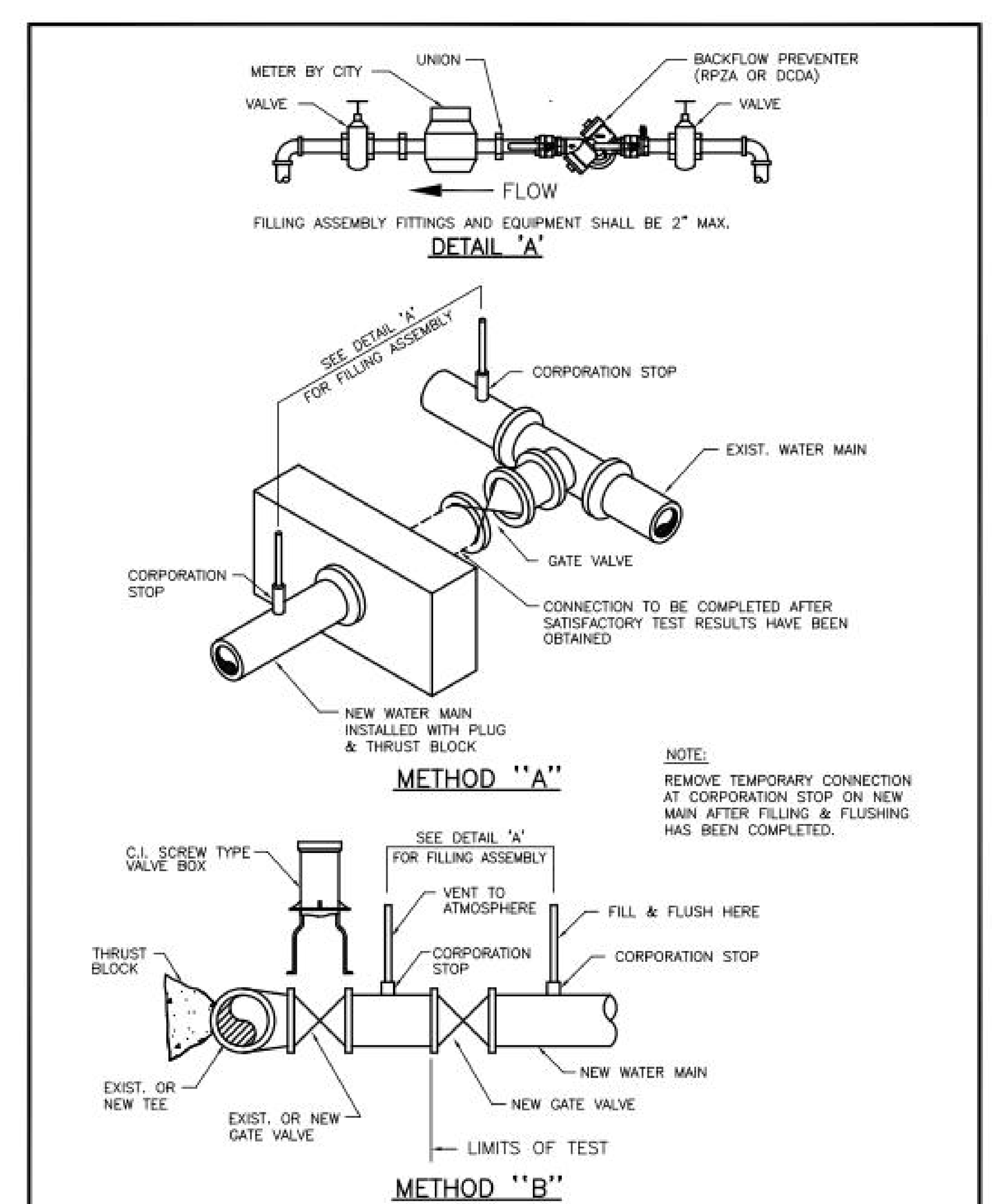
* WALL HEIGHTS NOTED ARE ONLY APPROXIMATE, FINAL HEIGHT WILL BE BASED ON PLAN DESIGN AND REFLECTED ON PRECAST SHOP DRAWINGS.

**

MINIMUM STRUCTURE BOTTOM ELEVATION TO BE AS REQUIRED TO PROVIDE A MINIMUM 2'-0" SUMP BELOW LOWEST PIPE INVERT OR 2'-0" BELOW ELEVATION 'F'.

DRAINAGE WELL LOCATION:
26degrees/01minutes/46.79 seconds North
80 degrees/06 minutes/57.78 seconds west

WELL STRUCTURE DETAIL



FILLING AND FLUSHING DETAILS — W-15

TESTING AND DISINFECTION NOTES:

1. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL THE PRESSURE AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED ON THE PROPOSED WATER MAINS AND THE SYSTEM HAS BEEN APPROVED BY THE CITY OF HOLLYWOOD AND THE BROWARD COUNTY HEALTH DEPARTMENT.
2. THE PRESSURE TEST SHALL BE PERFORMED FOR 2 HOURS AT A CONSTANT PRESSURE OF 150 PSI AND IN ACCORDANCE WITH RULE 62-555.330 (FAC) C600 AWWA LATEST REVISION, EXCEPT AS OTHERWISE SPECIFIED HEREIN AND IN SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION". PRESSURE TEST SHALL BE WITNESSED BY THE CITY OF HOLLYWOOD. THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

$$L = \frac{S \times D \times \sqrt{P}}{148{,}000}$$

L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR.
S = THE LENGTH OF PIPE BEING TESTED.
D = THE NOMINAL DIAMETER OF THE PIPE BEING TESTED.
P = THE AVERAGE TEST PRESSURE IN POUNDS PER SQUARE INCH.

3. THE COMPLETE LENGTH OF THE PROPOSED WATER MAIN SHALL BE TESTED, IN LENGTHS NOT TO EXCEED 2,000 FEET PER TEST.
4. PROPOSED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI/AWWA STANDARD C651 AND BACTERIOLOGICAL TESTED FOR TWO CONSECUTIVE DAYS IN ACCORDANCE WITH SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION".
5. BACTERIOLOGICAL TESTS SHALL BE REQUESTED AND PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL DIRECTLY HIRE A TESTING LABORATORY CERTIFIED BY THE FLORIDA DEPARTMENT OF HEALTH IN ORDER TO COLLECT AND TEST WATER SAMPLES FROM THE WATER DISTRIBUTION SYSTEM TO BE PLACED INTO SERVICE. SAMPLE COLLECTION AND BACTERIOLOGICAL ANALYSES SHALL BE PERFORMED IN ACCORDANCE WITH RULES 62-555.315(6), 62-555.340 AND 62-555.330 (FAC), AS WELL AS ALL REQUIREMENTS OF THE BROWARD COUNTY HEALTH DEPARTMENT PERMIT.
7. THE WATER DISTRIBUTION SYSTEM SHALL NOT BE CONSIDERED COMPLETE AND READY FOR FINAL INSPECTION UNTIL SUCCESSFUL TEST RESULTS ARE OBTAINED FOR ALL TESTS DESCRIBED ABOVE.

DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL — TESTING AND DISINFECTION NOTES — W-14

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

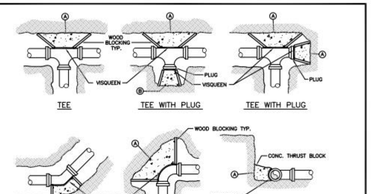
PROJECT:
NEBRASKA GARAGE
HOLLYWOOD **FLORIDA**

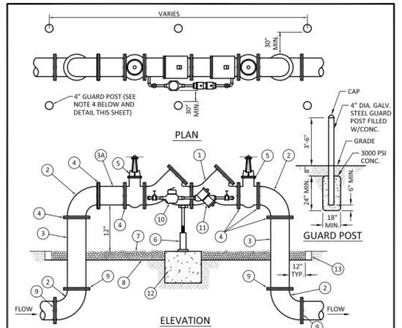
TASK:
CONSTRUCTION DETAILS

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS • CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 8118
2699 Stirling Road, Suite C-202
Fort Lauderdale, Florida 33312
Phone: (954) 986-9899
Fax: (954) 986-6655

DATE:	SCALE:
May 2015	N.T.S.
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 5	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER





WATER SYSTEM:

ALL WORKMANSHIP AND MATERIAL SHALL CONFORM TO STANDARDS OF THE LOCAL MUNICIPALITY AND APPLICABLE DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES STANDARDS. NO PHYSICAL CONNECTION OF NEW WATER MAINS TO ACTIVATE WATER MAINS SHALL BE MADE UNTIL SUCH TIME THAT THE NEW MAINS ARE CONFIRMED TO BE BACTERIOLOGICALLY SAFE AND THE HEALTH DEPARTMENT RELEASE HAS BEEN OBTAINED. TEMPORARY CONNECTIONS OF NEW MAINS TO ACTIVE MAINS FOR THE PURPOSE OF FILLING AND FLUSHING SHALL BE MADE BY A METHOD DEEMED ACCEPTABLE TO THE UTILITY PROVIDING SERVICE.

ALL WATER MAINS SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI AND HAVE COMPRESSION TYPE BELL AND SPIGOT JOINTS.

THE WATER SYSTEM SHALL BE HYDROSTATICALLY PRESSURE TESTED AND DISINFECTED PER AWWA / ANSI C651/05 AND TESTED FOR A PERIOD OF 2 HOURS AT NOT LESS THAN 150 PSI IN ACCORDANCE WITH ANSI / AWWA STANDARD C600-05 WITH AN ALLOWABLE LEAKAGE AS DETERMINED BY THE FOLLOWING FORMULA:

$L = S\,D\,P^{0.5} / 148{,}000$ WHERE:

L = ALLOWABLE LEAKAGE IN GALLONS / HOUR
S = PIPE LENGTH IN FEET
D = NOMINAL DIAMETER OF PIPE IN INCHES
P = AVERAGE TEST PRESSURE IN PSI

TEST PRESSURE SHALL NOT VARY MORE THAN 5 PSI THROUGHOUT THE TEST.THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE BASED ON A MAXIMUM 2000 FEET WHEN THE LENGTH OF PIPE TESTED EXCEEDS 2000 FEET. THRUST BLOCKS AS SHOWN ON THE DETAIL SHEETS SHALL BE PROVIDED AT ALL BENDS UNLESS NOTED OTHERWISE ON PLANS. IF RESTRAINT JOINT PIPE ISSPECIFIED ON THE PLANS, IT SHALL BE INSTALLED TO MEET THE REQUIREMENTS OF THE PIPE MANUFACTURER AND THE UTILITY DEPARTMENT.NO CONCRETE THRUST BLOCKS WILL BE ALLOWED EXCEPT FOR FIRE HYDRANTS.

BACTERIOLOGICAL TESTING SHALL BE IN ACCORDANCE WITH AWWA / ANSI C651-05 LATEST REVISION.

PVC WATER MAIN PIPE (BLUE) SHALL MEET THE REQUIREMENTS OF AWWA C-900.97 "POLYVINYL CHLORIDE (PVC) PRESSURE PIPE", CLASS 150 PIPE SHALL CONFORM TO REQUIREMENT OF SDR 18.

ALL PVC PIPE SHALL BE SUITABLE FOR USE AS A PRESSURE CONDUIT.PROVISIONS MUST BE MADE FOR EXPANSION AND CONTRACTION AT EACH JOINT WITH AN ELASTOMERIC RING. THE BELL SHALL CONSIST OF AN INTEGRAL WALL SECTION WITH AN ELASTOMERIC RING WHICH MEETS THE REQUIREMENTS OF ASTM F-477 STANDARD SPECIFICATIONS FOR ELASTOMERIC SEALS (GASKETS FOR JOINTING PLASTIC PIPE). THE WALL THICKNESS IN THE BELL SECTION SHALL CONFORM TO THE REQUIREMENTSOF ASTM D-3139.

PVC PIPE SHALL BE DELIVERED TO THE JOB SITE FROM THE FACTORY AND STORED AT THE JOB SITE IN PALLETIZED UNITS OR BUNDLES TO PREVENT UNNECESSARY DEFLECTION PRIOR TO INSTALLATION. EACH PALLETIZED UNIT SHALL BE SIZED TO LIMIT THE STACKING OF PIPE NOT MORE THAN SIXTY (60) INCHES HIGH OR AS APPROVED BY THE ENGINEER.

CARE SHALL BE TAKEN DURING THE TRANSPORTING OF THE PIPE TO INSURE THAT THE BINDING AND TIE DOWN METHODS DO NOT DAMAGE OR DEFLECT THE PIPE IN ANY MANNER. PIPE BENT, DEFLECTED, OR OTHERWISE DAMAGED DURING SHIPPING WILL BE REJECTED.

PVC MAINS SHALL BE LAID WITH A MINIMUM OF 36" CLEAR COVER.

FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON PRESSURE CLASS 350 THROUGH 12". ALL FITTINGS SHALL BE CEMENT MORTAR LINED AND SEALED THE SAME AS PIPE IN ACCORDANCE WITH AWWA/ANSI C110/A21.10-03.

PVC AND D.I.P. PIPE SHALL BE DEFLECTED NO MORE THAN ONE HALF(1/2) THE MANUFACTURERS RECOMMENDATION.

JOINTS FOR BELL AND SPIGOT PVC/DIP PIPE AND FITTINGS SHALL BE MECHANICAL OR RUBBER GASKET (EITHER ON SPIGOT OR IN BELL)COMPRESSION TYPE AS SPECIFIED IN ACCORDANCE WITH AWWA/ANSI STANDARD C111/A21.11-00. SPECIAL FITTINGS AND JOINTS SHALL BE CONSIDERED FOR SPECIFIC INSTALLATION.

ALL WATER MAINS SHALL HAVE CONTINUOUS DETECTOR TAPE 18 INCHES BELOW GRADE ALONG ALL WATER MAINS. DETECTOR TAPE SHALL HAVE BLUE SIDE-UP. A 14 GAUGE MULTI STRAND WIRE SHALL BE ATTACHED TO ALL NON-CONDUCTIVE WATER MAIN TO FACILITATE FUTURE LOCATION. AN EXTRA 4' OF WIRE SHALL BE PROVIDED AT BLOWOFFS, FIRE HYDRANTS, ETC.

POLYETHYLENE ENCASEMENT/WRAP SHALL BE INSTALLED ON ALL IRON PIPESINCLUDING VALVES, FITTINGS, SLEEVES, HYDRANTS, ETC. POLYWRAP SHALL BE INSTALLED IN ACCORDANCE WITH THE MINIMUM ANSI/AWWA C105/A21.5-05 STANDARDS.

DUCTILE IRON WATER MAIN SEALCOAT SHALL BE COAL TAR EPOXY OR ASPHALT.

DUCTILE IRON PIPE JOINTS SHALL BE PUSH-ON TYPE AND RESTRAINED A MINIMUM DISTANCE AS SPECIFIED IN RESTRAINEND DETAIL ON APPLICABLE DETAIL SHEET, USING MEGA-LUG OR APPROVED EQUAL USING TR-FLEX U.S. PIPE OR FLEX RING BY AMERICAN PIPE.

WATER MAIN STUBS FOR FUTURE EXTENSION INCLUDING ALL FITTINGS BACK TO TEE (IF STUB LENGHTS IS LEES THAN TWO PIPE LENGTH)LENGHTS WILL BE RESTRAINT JOINT PIPE FOR THE LAST TWO LENGTHS. (AS REQUIRED BY ENGINEER OR UTILITY DEPT.)

DUCTILE IRON PIPE SHALL BE CLASS 350 AND SHALL BE CEMENT LINED AND SEALCOATED IN ACCORDANCE WITH AWWA / ANSI STANDARD C151/A21.51-02. WATER MAINS SHALL BE LAID WITH A MINIMUM 30" CLEAR COVER. DUCTILE IRON FITTINGS SHALL BE CLASS 350 THROUGH 12" AND CLASS 250 IN SIZES 16" AND LARGER. ALL FITTINGS SHALL BE CEMENT LINED AND SEALCOATED THE SAME AS PIPE IN ACCORDANCE WITH AWWA / ANSI STANDARDS C104/A21.4-03 AND C153/A21.53-00. NEOPRENE GASKETS SHALL BE USED.

ALL WATER MAINS SHALL BE BEDDED AND BACKFILLED PER STANDARD TRENCH DETAILS.

CONTRACTOR IS RESPONSIBLE FOR THE EXISTING ON-SITE WATER SYSTEM UNTIL FINAL INSPECTION, CERTIFICATION AND APPROVAL BY THE UTILITY.

CONTRACTOR IS RESPONSIBLE WHETHER, OR NOT NOTED ON PLANS FOR RAISING OR LOWERING OF EXISTING GATE VALVE BOXES, METER BOXES, ETC. THAT MAY NEED ADJUSTMENT TO MEET PROPOSED FINISH GRADES.

ALL EXISTING WATER MAINS AND COMPONENTS DESIGNATED FOR REMOVAL ARE THE PROPERTY OF THE UTILITY. MATERIALS SHALL BE REMOVED FROM THE GROUND AS CAREFULLY AS POSSIBLE AND SALVAGED FOR UTILITY.SHOULD UTILITY REFUSE SAID WATER COMPONENTS, THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR OFF-SITE DISPOSAL.

CONTRACTOR TO REFER TO ARCHITECTURAL (PLUMBING) PLANS TO CONFIRM LOCATIONS AND ELEVATIONS OF ALL WATER FIRE AND SEWER BUILDING CONNECTIONS.

DEVELOPER IS RESPONSIBLE TO DEDICATE UTILITY EASEMENTS TO THE UTILITY FOR ALL PUBLIC WATER MAINS THAT ARE TO BE ULTIMATELY OWNED AND MAINTAINED BY THE UTILITY. EASEMENTS TO BE GRANTED UPON THE CONCLUSION OF THE WORK FROM AS-BUILT PIPE LOCATIONS, UNLESS OTHERWISE REQUIRED BY THE UTILITY.

CONTRACTOR IS RESPONSIBLE TO DELIVER AS-BUILT WATER PLANS, MYLAR, AND COMPUTER DISK TO THE ENGINEER OF RECORD PRIOR TO FINAL CERTIFICATION TO THE UTILITY. AS-BUILTS SHALL BE SIGNED AND SEALED BY A REGISTERED FLORIDA SURVEYOR.

MAINTAIN A 10-FOOT HORIZONTAL CLEARANCE BETWEEN ALL UTILITIES AND BUILDING STRUCTURES, UNLESS OTHERWISE SHOWN ON THE PLANS.

LANDSCAPING SHALL NOT BE INSTALLED WITHIN 6' OF ALL WATER MAINS AND SERVICES OR WITHIN A 5' RADIUS OF ALL FIRE HYDRANTS, UNLESS APPROVED BY THE ENGINEER.

WATER MAINS SHALL BE DEFLECTED OVER DRAINAGE AT ALL CONFLICTS.

ALL WATER SERVICES SHALL TERMINATE A MINIMUM OR 5' FROM BUILDING.

UNDERGROUND WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO BUILDING CONSTRUCTION AS REQUIRED BY THE LOCAL FIRE DEPARTMENT AND THE SOUTH FLORIDA BUILDING CODE, LATEST REVISION.

ALL WATER MAIN INSTALLATION SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 FAC.

WATER SERVICE LINES:

WATER SERVICES SHALL BE POLYETHYLENE TUBING (PE 3408) COMPLYING WITH APPLICABLE REQUIREMENTS FOR PE, AWWA C902-02 HIGH MOLECULAR WEIGHT PLASTIC MATERIAL ASTM D-2666, 250 PSI RATING (CTS-OD) SDR 9. SERVICE PIPE SHALL BE INSTALLED AS A SINGLE RUN WITHOUT UNIONS.

JOINTS FOR TUBING SHALL BE OF THE COMPRESSION TYPE UTILIZING A TOTALLY CONFINED GRIP SEAL AND COUPLING NUT. STAINLESS STEEL TUBE STIFFENER INSERTS SHALL ALSO BE USED FOR TUBING SERVICES.

SERVICE LINES SHALL BE MARKED WITH 2" X 4" POST PAINTED BLUE.

ALL WATER SERVICES SHALL BE BEDDED AND BACKFILLED PER STANDARD TRENCH DETAIL.

PIPE DEFLECTION SHALL BE NO MORE THAN ONE HALF OF THE MANUFACTURER'S RECOMMENDATION.

MINIMUM COVER SHALL BE 24".

ALL WATER SERVICE LINES UNDER PAVED AREAS SHALL BE SLEEVED IN SCHEDULE 40 PVC AND SHALL BE OF ONE SINGLE LENGTH WITHOUT UNIONS.

FORD STAINLESS INSERTS ARE REQUIRED FOR PLASTIC PIPE.

GATE VALVES:

GATE VALVES 4" AND LARGER SHALL BE MECHANICAL JOINT TYPE AND COMPLY WITH AWWA / ANSI STANDARD C509-01.

MECHANICAL JOINTS SHALL CONFORM TO AWWA / ANSI C111/A21.11-00

ALL GATE VALVES ARE TO BE IRON BODY, BRONZE MOUNTED, DOUBLE DISK, NON-RISING STEM, RESILIENT SEAT TYPE, OPENING LEFT (COUNTER CLOCKWISE). THE INTERIOR LINING SHALL BE FUSION BONDED EPOXY ACCORDING TO AWWA 550-90 AND AN EXTERIOR EPOXY COAT (BOTH 40 MILLS DFT.)

GATE VALVES 4" TO 12" SHALL HAVE A MAXIMUM WORKING PRESSURE OF 200 PSI AND BE TESTED AT 400 PSI. GATE VALVES SHALL BE RESILIENT SEATED MUELLER, CLOW RESILIENT WEDGE, M & H, OR APPROVED EQUAL, WITH RESTRAINT JOINTS.

GATE VALVES UNDER 4" IN SIZE SHALL BE BRONZE GATE VALVES CONFORMING TO MSS STANDARD PRACTICE SP-37. THEY SHALL BE DOUBLE DISK, NON-RISING STEM, OPEN LEFT (COUNTER CLOCKWISE) WITH OPERATING WHEEL. PEWTER AND POT METAL OPERATING WHEELS SHALL NOT BE PERMITTED. GATE VALVES SHALL MEET AWWA C500-02 STANDARDS.

VALVE BOXES SHALL BE CAST IRON EXTENSION TYPE WITH NOT LESS THAN 5-1/4" DIAMETER SHAFT AND WITH COVERS MARKED "WATER", PAINTED BLUE. USF 7500 OR APPROVED EQUAL.

GATE VALVES 18" AND LARGER WILL BE SUBSTITUTED WITH BUTTERFLY VALVES AS MANUFACTURED BY PRATT, DEZURIK, CLOW, OR APPROVED EQUAL.

BUTTERFLY VALVES ARE TO BE CAST OR DUCTILE IRON BODY; ALLOY CAST IRON OR DUCTILE IRON DISK; BODY MOUNTED ADJUSTABLE SEAT; ONE-PIECE STAINLESS STEEL SHAFT; SHORT OR LONG BODY TYPE; WITH THE VALVE CLASS, SHAFT SIZE AND OTHER SPECIAL REQUIREMENTS SELECTED IN ACCORDANCE WITH THE SPECIFIC DESIGN; AND ARE TO COMPLY WITH THE PROVISIONS OF AWWA C504-00, "RUBBER SEATED BUTTERFLY VALVES."

VALVE OPERATION IS TO BE APPROVED GEAR ACTUATORS, WITH SEALED ENCLOSURES FOR BURIED OR SUBMERGED SERVICE. POSITION INDICATORS WILL BE FURNISHED AS REQUIRED. UNITS ARE TO BE EQUIPPED WITH 2" ACTUATING NUTS, CAST IRON HANDWHEELS, OR CHAIN OPERATORS, WITH GALVANIZED STEEL CHAINS, AS APPROPRIATE FOR THE INSTALLATION. APPURTENANCES ARE TO BE FURNISHED BY THE VALVE MANUFACTURER.

WATER SERVICE FITTINGS:

METER VALVES (ASTM B-62 LATEST) SHALL BE FORD ANGLE STOPS MODEL #KV43-342W FOR SINGLE SERVICES AND FORD MODEL #UV63-42W FOR DOUBLE SERVICES OR APPROVED EQUAL.

CURB STOPS SHALL BE OF THE INVERTED KEY TYPE WITH TEE-HEAD SHUT OFF. CURB STOPS SHALL BE MADE OF BRASS ALLOY IN ACCORDANCE WITH ASTM SPECIFICATION B62-82A.

METER VALVES AND CORPORATION STOPS (FORD BALL CORP. NO. FC 202) SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM SPECIFICATION B62-82A WITH EPOXY COATED DUCTILE IRON BODY STAINLESS STEEL SERVICE SADDLES BY FORD.

INLET THREAD FOR METER VALVES AND CURB STOPS SHALL BE AWWA TAPER THREAD IN ALL SIZES IN ACCORDANCE WITH ANSI / AWWA STANDARD C800-05. OUTLET CONNECTIONS SHALL HAVE A COMPRESSION TYPE FITTING SAME AS VALVES.

CONTRACTOR TO REVIEW WATER DETAILS TO DETERMINE EXTENT OF JURISDICTION OF WATER SERVICE AND METER MATERIALS (METERS, ETC.) SUPPLIED AND INSTALLED BY UTILITY.

FIRE HYDRANTS:

ALL FIRE HYDRANTS SHALL COMPLY WITH AWWA / ANSI STANDARD C502-05 AND THE FOLLOWING DESIGN STANDARDS:

THE FIRE HYDRANTS SHALL BE OF THE COMPRESSION TYPE, OPENING AGAINST THE PRESSURE AND CLOSING WITH THE LINE PRESSURE WITH (1)-$5\frac{1}{4}$" VALVE OPENING. THE HYDRANT SHALL BE EQUIPPED WITH (2)-$2\frac{1}{2}$" HOSE NOZZLES AND (1)-$5\frac{1}{4}$" PUMPER NOZZLE.

FIRE HYDRANTS SHALL BE FURNISHED WITH A SEALED OIL OR GREASE RESERVOIR LOCATED IN THE BONNET SO THAT ALL THREADED AND BEARING SURFACES ARE AUTOMATICALLY LUBRICATED WHEN THE HYDRANT IS OPERATED. THE HYDRANT WILL BE DESIGNED FOR DISASSEMBLY BY USE OF A SHORT DISASSEMBLY WRENCH OR THE HYDRANT SHOE SHALL HAVE INTEGRAL CAST TIE BACK LUGS ON THE MAIN VALVE TO PERMIT THE MAIN VALVE ASSEMBLY AND VALVE SEAT TO BE REMOVED WITHOUT DIGGING EARTH OR DISASSEMBLING THE HYDRANT BARREL.

FIRE HYDRANTS SHALL BE FURNISHED WITH A BREAKABLE FEATURE THAT WILL BREAK CLEANLY UPON IMPACT. THIS SHALL CONSIST OF A TWO PART BREAKABLE SAFETY FLANGE WITH A BREAKABLE STEM COUPLING. THE UPPER AND LOWER BARRELS SHALL BE FLUTED AND RIBBED ABOVE AND BELOW THE SAFETY FLANGE OR HAVE AN EXTRA STRENGTH LOWER BARREL.

THE FIRE HYDRANT INTERNAL VALVE SHALL BE $5\frac{1}{4}$" MINIMUM. THE PENTAGONAL OPERATING NUTS AND THE CAP NUTS SHALL BE $1\frac{1}{2}$" POINT TO FLAT. DRAIN VALVE OUTLETS FOR THE HYDRANTS SHALL BE PLUGGED OR OMITTED. THE HYDRANTS SHALL OPEN COUNTER CLOCKWISE AND THE DIRECTION OF OPENING SHALL BE CAST ON THE TOP. THE BURY LENGTH, MEASURED FROM THE BOTTOM OF THE CONNECTING PIPE TO THE GROUND LINE AT THE HYDRANT SHALL BE THREE FEET SIX INCHES (42") MINIMUM OR AS REQUIRED BY PLAN.

THE HYDRANT SHALL BE EQUIPPED WITH A 6" MINIMUM MECHANICAL JOINT BASE INLET UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

FIRE HYDRANTS SHALL BE MUELLER PAINTED TRAFFIC RED OR AS OTHERWISE SPECIFIED ON PLANS, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY.

REFER TO WATER DETAILS FOR OTHER REQUIREMENTS / INFORMATION RELATED TO FIRE HYDRANTS.

MINIMUM CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL (SQ. FT.)				
MARK	PIPE SIZE			
	4" OR 6"	8"	10"	12"
A				
B				

NOTES:

1. THRUST BLOCKS ARE TO BE USED IN COMBINATION WITH, AND NOT IN LIEU OF, MECHANICAL JOINT RESTRAINTS AS REQUIRED BY THE CITY. REFER TO THRUST RESTRAINT DESIGN TABLE IN STANDARD DETAIL G-10.
2. THE AREAS IN THE TABLE ARE BASED ON ______ POUNDS PER SQUARE FOOT SOIL BEARING AGAINST THE UNDISTURBED TRENCH WALL AND ARE TO REPRESENT THE MINIMUM VERTICAL PROJECTED AREA AT THE THRUST BLOCK IN A PLANE PERPENDICULAR TO THE LINE BISECTING THE INCLUDING ANGLE OF THE FITTING.
3. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EVACUATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL.
4. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
5. DO NOT COVER COUPLING OR JOINTS WITH CONCRETE.
6. CONCRETE TO BE 2500 P.S.I. MINIMUM 28 DAY STRENGTH.
7. TABLE TO BE COMPLETED BY DESIGN ENGINEER.

ISSUED: 03/01/1994 | DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL | REVISED: 06/08/2014
DRAWN: EAM
APPROVED: XXX
THRUST BLOCK DESIGN
DRAWING NO. G-10

WATER NOTES CONTINUED:

9. VALVE BOXES AND COVERS FOR ALL SIZE VALVES SHALL BE OF CAST IRON CONSTRUCTION AND ADJUSTABLE SCREW-ON TYPE. THE LID SHALL HAVE CAST IN THE METAL THE WORD "WATER" FOR THE WATER LINES. ALL VALVE BOXES SHALL BE SIX INCH (6") NOMINAL DIAMETER AND SHALL BE SUITABLE FOR DEPTHS OF THE PARTICULAR VALVE. THE STEM OF THE BURIED VALVE SHALL BE WITHIN TWENTY-FOUR INCHES (24") OF THE FINISHED GRADE UNLESS OTHERWISE APPROVED BY THE CITY. VALVE BOXES SHALL BE TYLER BRAND, NO SUBSTITUTES.
10. FIRE HYDRANTS: PRESENTLY CITY OF HOLLYWOOD UTILITIES SPECIFICATIONS ALLOW ONLY MANUFACTURERS: MUELLER MODEL SUPER CENTURION 200 $5\frac{1}{4}$" SIZE REFERENCE CATALOG NO. A-423 AND AMERICAN DARLING MODEL B-84-B $5\frac{1}{4}$" SIZE. ANY DEVIATION FROM REQUIRED SPECIFICATIONS WILL REQUIRE CITY OF HOLLYWOOD UTILITIES APPROVAL.
11. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 F.A.C.
12. ALL PVC PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C900 LATEST REVISION AND CLASS DR 18. ALL DIP WATER MAINS SHALL BE DUCTILE IRON PRESSURE CLASS 350, WITH WALL THICKNESS COMPLYING WITH CLASS 52. ALL DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C151/A21.51-02 AND BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03.
13. FITTINGS SHALL BE DUCTILE IRON, MEETING ANSI/AWWA C153/A21.53-00 SPECIFICATIONS, WITH 350 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03. ALL DUCTILE IRON PIPE AND FITTINGS MUST BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
14. ALL DUCTILE IRON PIPE TO BE MECHANICAL JOINTS, WRAPPED IN POLY. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY DESIGN.
15. GATE VALVES 4" AND LARGER SHALL BE RESILIENT SEAT AND SHALL MEET ANSI/AWWA C-509-01 SPECIFICATIONS, LATEST REVISION. VALVES MUST BE MUELLER (O.A.E.). VALVE BOXES SHALL BE TYLER UNION, CONTROL/GATE VALVES 3" AND SMALLER SHALL BE NIBCO T-133 LF. NO SUBSTITUTIONS.
16. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.
17. ALL TRENCHING, PIPE LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTING MUST COMPLY WITH THE CITY OF HOLLYWOOD SPECIFICATIONS.
18. THE MINIMUM DEPTH OF COVER OVER WATER MAINS IS 30" (DIP) OR 36" (PVC).
19. MINIMUM CLEARANCE BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 2', AND MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 50% OF MANUFACTURES RECOMMENDATION (MAXIMUM) WHERE DEFLECTION IS REQUIRED.
20. TAPPING SLEEVES SHALL BE MUELLER H-615 (O.A.E.). TAPPING VALVES 4" AND LARGER SHALL BE RESILIENT WEDGE TYPE MEETING ANSI/AWWA C509-01. ALL TAPPING VALVES SHALL HAVE A CAST-IN ALIGNMENT RING AND BE CAPABLE OF ACCEPTING A FULL-SIZE CUTTER.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING CONFLICTS WITH WATER MAINS PLACED AT MINIMUM COVER. IN CASE OF CONFLICT, WATER MAIN SHALL BE LOWERED TO PASS UNDER CONFLICTS WITH 18" MINIMUM SEPARATION. NO ADDITIONAL PAYMENT SHALL BE DUE TO CONTRACTOR FOR LOWERING THE MAIN OR THE ADDITIONAL FITTINGS USED THEREON.

ISSUED: 03/01/1994 | DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL | REVISED: 06/08/2014
DRAWN: EAM
APPROVED: XXX
WATER NOTES
DRAWING NO. W-01.1

REDUCED PRESSURE ZONE
BACKFLOW PREVENTER DETAIL
2" DIAMETER AND SMALLER
N.T.S.

MATERIALS					
ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	4",6",8" VALVE,DOUBLE CHECK	7	N/A	PEA GRAVEL (4" DEEP)
2	4	4",6",8" BEND-90°	8	N/A	PLASTIC LINER/WEED STOP (5 MILS)
3	2	4",6",8" D.I.P. SPOOL PIECE	9	4	RESTRAINED JOINTS
3A	1	4",6",8" D.I.P. SPOOL PIECE (24" LONG)	10	1	LOW FLOW METER
4	7	4",6",8" FLANGE, D.I.P.	11	1	VALVE, BYPASS DOUBLE CHECK
5	2	4",6",8" GATE VALVE (SEE NOTE 6)	12	1	16"X16"X16" CONC. SUPPORT
6	1	SCREW JACK/ANCHORED	13	1	P.T. 2X4 LUMBER ALL AROUND

NOTES:

1. FIELD ADJUST AND CUT ITEM 3 TO THE PROPER LENGTH.
2. ALL PIPING SHALL BE D.I.P. CL 50/52 AS APPLICABLE TO MINIMUM STANDARDS.
3. ALL LOW FLOW METER PIPING SHALL BE BRASS OR COPPER.
4. PROTECTIVE 4" GALV. GUARD POSTS SHALL BE SPACED EVENLY APART AS SHOWN ABOVE OR IN ACCORDANCE WITH INSPECTOR'S DIRECTIONS.
5. MAY USE 45° BENDS (SEE DETAIL W-07.2) WHEN WORKING AREA IS NOT LIMITED, AS DIRECTED BY CITY.
6. GATE VALVES SHALL BE CHAINED AND LOCKED TOGETHER TO PREVENT TAMPERING.

ISSUED: 03/01/1994 | DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL | REVISED: 06/08/2014
DRAWN: EAM
APPROVED: XXX
TYPICAL 4", 6" AND 8" DOUBLE CHECK DETECTOR ASSEMBLY FOR FIRE SPRINKLER SERVICE (90° BENDS)
DRAWING NO. W-03

WATER NOTES CONTINUED:

22. PIPE JOINT RESTRAINT SHALL BE PROVIDED BY THE USE OF DUCTILE IRON FOLLOWER GLANDS MANUFACTURED TO ASTM A 536-80. TWIST-OFF NUTS SHALL BE USED TO ENSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINING DEVICES SHALL HAVE A WORKING PRESSURE OF 250 PSI MINIMUM, WITH A MINIMUM SAFETY FACTOR OF 2:1, AND SHALL BE EBAA IRON INC., MEGALUG OR APPROVED EQUAL. JOINT RESTRAINTS SHALL BE PROVIDED AT A MINIMUM OF THREE JOINTS (60 FEET) FROM ANY FITTING.
23. WHENEVER IT IS NECESSARY, IN THE INTEREST OF SAFETY, TO BRACE THE SIDES OF A TRENCH, THE CONTRACTOR SHALL FURNISH, PUT IN PLACE AND MAINTAIN SUCH SHEETING OR BRACING AS MAY BE NECESSARY TO SUPPORT THE SIDES OF THE EXCAVATION TO ENSURE PERSONNEL SAFETY, AND TO PREVENT MOVEMENT WHICH CAN IN ANY WAY DAMAGE THE WORK OR ENDANGER ADJACENT STRUCTURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SEQUENCE, METHODS AND MEANS OF CONSTRUCTION, AND FOR THE IMPLEMENTATION OF ALL OSHA AND OTHER SAFETY REQUIREMENTS.

ISSUED: 03/01/1994 | DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL | REVISED: 06/08/2014
DRAWN: EAM
APPROVED: XXX
WATER NOTES
DRAWING NO. W-02

WATER NOTES:

1. NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE.
2. NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
3. AT ALL UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE, OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
4. NEW UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT TO BE DUCTILE IRON PIPE (D.I.P.) WHEN CROSSING BELOW SANITARY SEWER MAINS.
5. POLYETHYLENE ENCASEMENT MATERIAL SHALL BE USED TO ENCASE ALL BURIED DUCTILE IRON PIPE, FITTINGS, VALVES, RODS, AND APPURTENANCES IN ACCORDANCE WITH AWWA C105, METHOD A. THE POLYETHYLENE TUBING SHALL BE CUT TWO FEET LONGER THAN THE PIPE SECTION AND SHALL OVERLAP THE ENDS OF THE PIPE BY ONE FOOT. THE POLYETHYLENE TUBING SHALL BE GATHERED AND LAPPED TO PROVIDE A SNUG FIT AND SHALL BE SECURED AT QUARTER POINTS WITH POLYETHYLENE TAPE. EACH END OF THE POLYETHYLENE TUBING SHALL BE SECURED WITH A WRAP OF POLYETHYLENE TAPE.
6. THE POLYETHYLENE TUBING SHALL PREVENT CONTACT BETWEEN THE PIPE AND BEDDING MATERIAL, BUT IS NOT INTENDED TO BE A COMPLETELY AIRTIGHT AND WATERTIGHT ENCLOSURE. DAMAGED POLYETHYLENE TUBING SHALL BE REPAIRED IN A WORKMANLIKE MANNER USING POLYETHYLENE TAPE, OR THE DAMAGED SECTION SHALL BE REPLACED. POLY WRAP WILL NOT BE PAID FOR AS A SEPARATE BID ITEM. IT SHALL BE CONSIDERED TO BE A PART OF THE PRICE BID FOR WATER MAINS.
7. FIRE HYDRANT BARRELS SHALL BE ENCASED IN POLY WRAP UP TO THE GROUND SURFACE AND THE WEEP HOLES SHALL NOT BE COVERED BY THE POLY WRAP.
8. GATE VALVES FOR USE WITH PIPE LESS THAN THREE INCHES (3") IN DIAMETER SHALL BE RATED FOR TWO HUNDRED (200) PSI WORKING PRESSURE, NON-SHOCK, BLOCK PATTERN, SCREWED BONNET, NON-RISING STEM, BRASS BODY, AND SOLID WEDGE. THEY SHALL BE STANDARD THREADED FOR PVC PIPE AND HAVE A MALLEABLE IRON HANDWHEEL. GATE VALVES LESS THAN THREE INCHES (3") IN DIAMETER SHALL BE NIBCO-SCOTT T-113 LF WITH NO SUBSTITUTIONS ALLOWED. LARGE GATE VALVES OVER 3" THRU 16" IN DIAMETER, MUST BE RESILIENT SEAT AND BIDIRECTIONAL FLOW ONLY. MANUFACTURERS: MUELLER, AMERICAN DARLING, AVK, OR CITY APPROVED EQUAL. VALVES FOR SPECIAL APPLICATION WILL REQUIRE CITY UTILITY APPROVAL.

ISSUED: 03/01/1994 | DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL | REVISED: 06/08/2014
DRAWN: EAM
APPROVED: XXX
WATER SYSTEM NOTES
DRAWING NO. W-01

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT:
NEBRASKA GARAGE
HOLLYWOOD **FLORIDA**

TASK:
CONSTRUCTION DETAILS

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
• CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 8118
2699 Stirling Road, Suite C-202
Fort Lauderdale, Florida 33312
Phone: (954) 986-9899
Fax: (954) 986-6655

DATE:	SCALE:
May 2015	N.T.S.
DESIGNED BY:	DRAWN BY:
G.G.B.	F.M.
PROJECT NO.	
14-0608	
SHEET	OF
5A	8

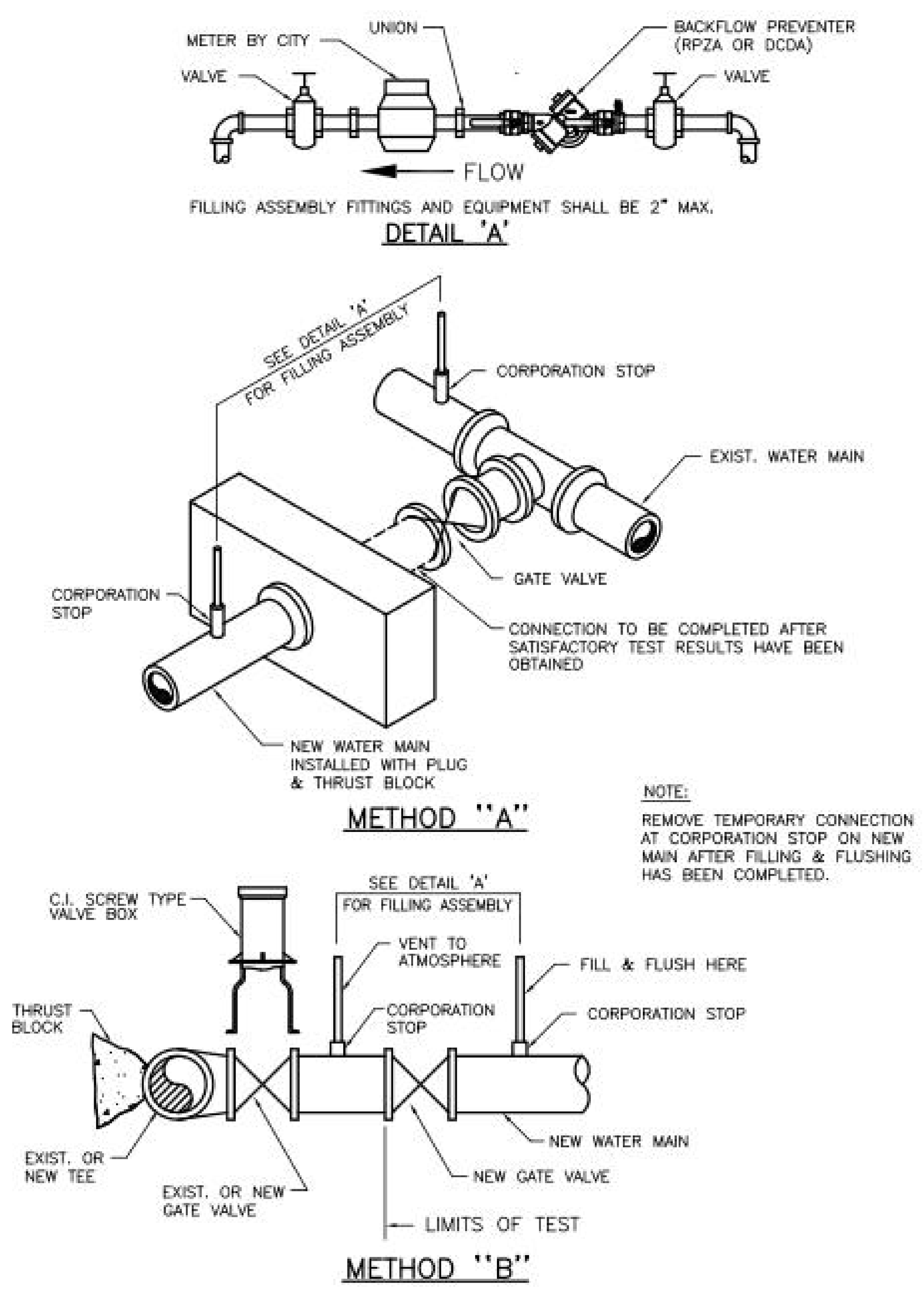
GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED
AND SEALED BY ENGINEER

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSING (1), (4)	JOINT SPACING @ CROSSING (FULL JOINT CENTERED) (8)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (2)	WATER MAIN; 3 ft minimum	WATER MAIN; 12 inches is the minimum except for storm sewer, then 6 inches is the minimum and 12 inched is preferred	Alternate 3 ft minimum; WATER MAIN
GRAVITY SANITARY SEWER, (3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER	WATER MAIN; 10 ft prefered 6 ft minimum	WATER MAIN; 12 inches is the minimum except for gravity sewer, then 6 inches is the minimum and 12 inched is preferred	Alternate 6 ft minimum; WATER MAIN
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 ft minimum	—	—

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE, WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. 18" VERTICAL MINIMUM SEPARATION REQUIRED BY CITY OF HOLLYWOOD, UNLESS OTHERWISE APPROVED.
5. A MINIMUM 6 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
6. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
7. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN A PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
8. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALY RESTRAINED.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	SEPARATION REQUIREMENTS OF F.D.E.P. / F.D.N.R.P.	DRAWING NO. G-01.1
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	FILLING AND FLUSHING DETAILS	DRAWING NO. W-15
APPROVED: XXX		

TESTING AND DISINFECTION NOTES:

1. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL THE PRESSURE AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED ON THE PROPOSED WATER MAINS AND THE SYSTEM HAS BEEN APPROVED BY THE CITY OF HOLLYWOOD AND THE BROWARD COUNTY HEALTH DEPARTMENT.
2. THE PRESSURE TEST SHALL BE PERFORMED FOR 2 HOURS AT A CONSTANT PRESSURE OF 150 PSI AND IN ACCORDANCE WITH RULE 62-555.330 (FAC) C600 AWWA LATEST REVISION, EXCEPT AS OTHERWISE SPECIFIED HEREIN AND IN SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION". PRESSURE TEST SHALL BE WITNESSED BY THE CITY OF HOLLYWOOD. THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

$$L = \frac{S \times D \times \sqrt{P}}{148,000}$$

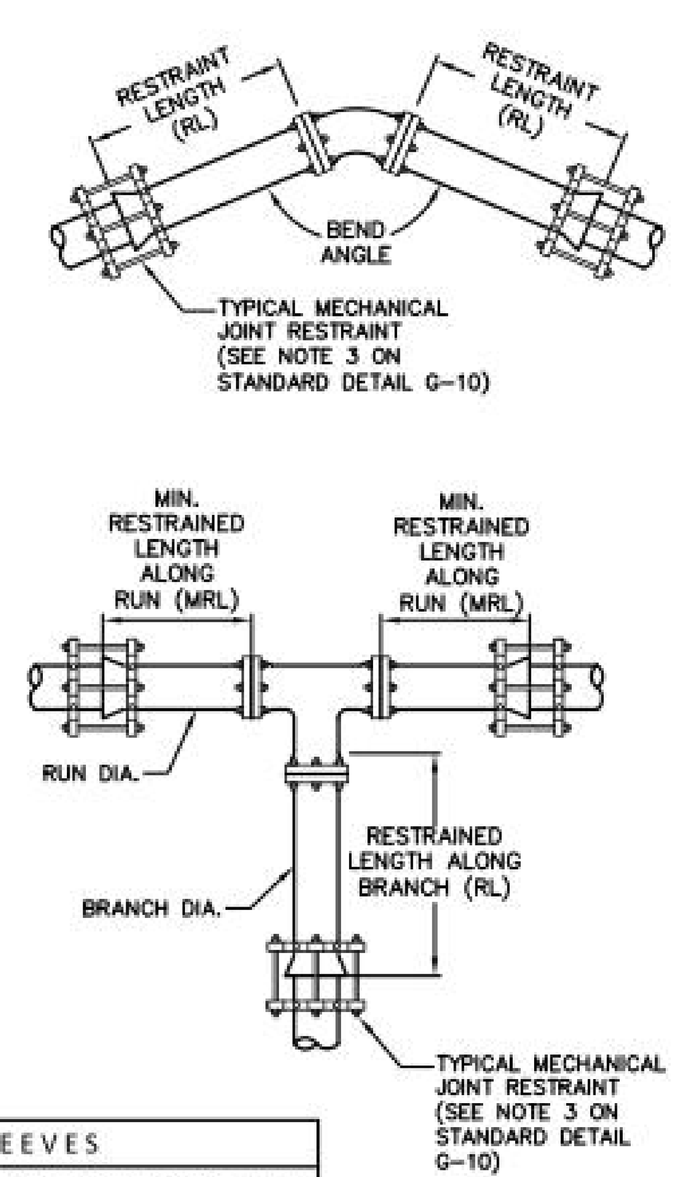
L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR.
S = THE LENGTH OF PIPE BEING TESTED.
D = THE NOMINAL DIAMETER OF THE PIPE BEING TESTED.
P = THE AVERAGE TEST PRESSURE IN POUNDS PER SQUARE INCH.

3. THE COMPLETE LENGTH OF THE PROPOSED WATER MAIN SHALL BE TESTED, IN LENGTHS NOT TO EXCEED 2,000 FEET PER TEST.
4. PROPOSED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI/AWWA STANDARD C651 AND BACTERIOLOGICAL TESTED FOR TWO CONSECUTIVE DAYS IN ACCORDANCE WITH SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION".
5. BACTERIOLOGICAL TESTS SHALL BE REQUESTED AND PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL DIRECTLY HIRE A TESTING LABORATORY CERTIFIED BY THE FLORIDA DEPARTMENT OF HEALTH IN ORDER TO COLLECT AND TEST WATER SAMPLES FROM THE WATER DISTRIBUTION SYSTEM TO BE PLACED INTO SERVICE. SAMPLE COLLECTION AND BACTERIOLOGICAL ANALYSES SHALL BE PERFORMED IN ACCORDANCE WITH RULES 62-555.315(6), 62-555.340 AND 62-555.330 (FAC), AS WELL AS ALL REQUIREMENTS OF THE BROWARD COUNTY HEALTH DEPARTMENT PERMIT.
7. THE WATER DISTRIBUTION SYSTEM SHALL NOT BE CONSIDERED COMPLETE AND READY FOR FINAL INSPECTION UNTIL SUCCESSFUL TEST RESULTS ARE OBTAINED FOR ALL TESTS DESCRIBED ABOVE.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TESTING AND DISINFECTION NOTES	DRAWING NO. W-14
APPROVED: XXX		

HORIZONTAL BENDS

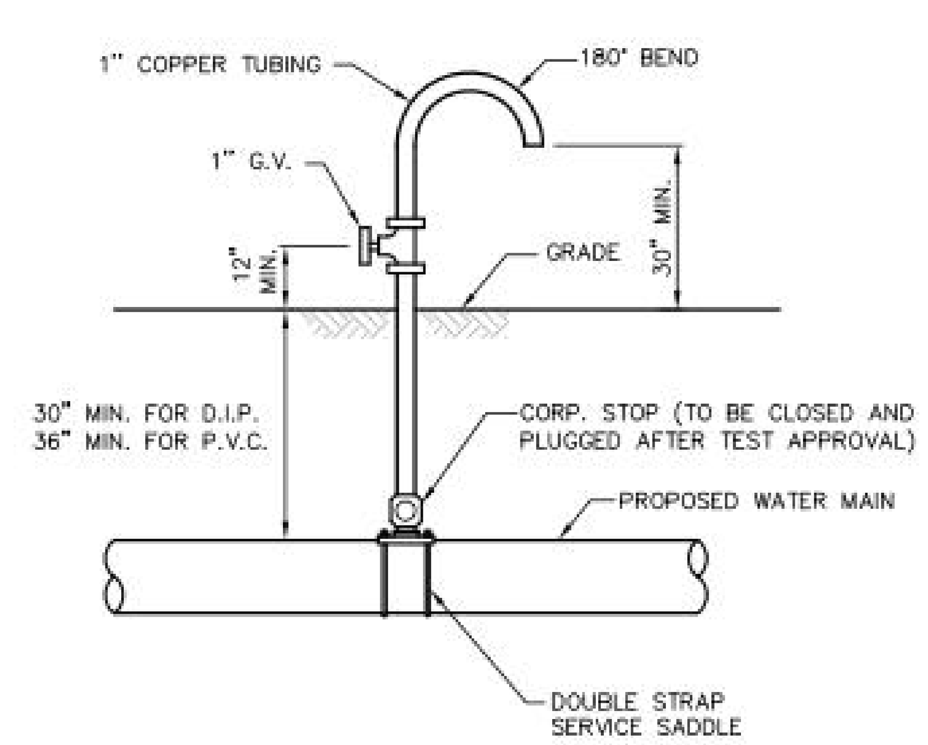
PIPE DIA. (INCHES)	BEND (ANGLE)	RESTRAINED LENGTH (RL) (FT) PVC	*DIP
16	11¼	.	.
	22½	.	.
	45	.	.
	90	.	.
8	11¼	.	.
	22½	.	.
	45	.	.
	90	.	.
6	11¼	.	.
	22½	.	.
	45	.	.
	90	.	.
4	11¼	.	.
	22½	.	.
	45	.	.
	90	.	.



TEES AND TAPPING SLEEVES

RUN DIA. (INCHES)	BRANCH DIA. (INCHES)	MIN. RESTRAINED LENGTH ALONG RUN (FT.)	MIN. LENGTH TO RESTRAIN ALONG BRANCH (FT.) PVC	*DIP
16"	16"	.	.	.
8"	8"	.	.	.
8"	6"	.	.	.
8"	4"	.	.	.
6"	6"	.	.	.
4"	4"	.	.	.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	JOINT RESTRAINT DESIGN FOR PVC AND DIP HORIZONTAL BENDS AND TEES	DRAWING NO. G-11.1
APPROVED: XXX		



NOTES:

SAMPLING POINT SHALL NOT BE REMOVED UNTIL APPROVAL IS OBTAINED FROM BROWARD COUNTY HEALTH DEPARTMENT.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	SAMPLING POINT DETAIL	DRAWING NO. W-16
APPROVED: XXX		

REVISIONS: 1. 2. 3. 4. 5. 6. 7. 8.

CLIENT: Kaller Architects
2417 Hollywood Boulevard
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(954) 920-5746

PROJECT: NEBRASKA GARAGE
HOLLYWOOD FLORIDA

TASK: CONSTRUCTION DETAILS

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS • CONSTRUCTION MANAGERS
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2699 Stirling Road, Suite C-202
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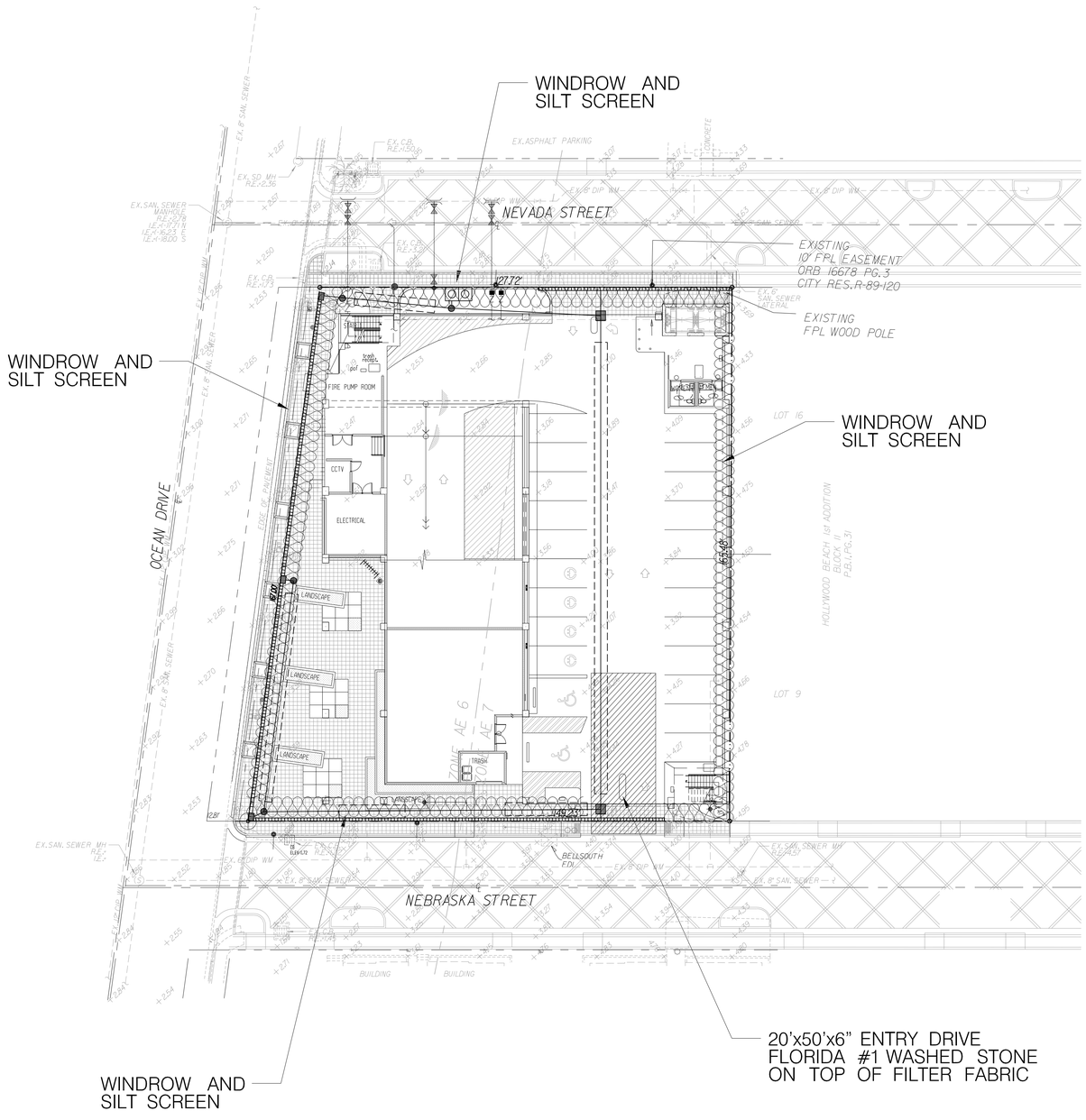
DATE: May 2015	SCALE: 1"=10'
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 5B	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER



0 20' 40'

GRAPHIC SCALE

LEGEND

DENOTES WINDROW AND SILT SCREEN ALONG PROPERTY LINE DURING CONSTRUCTION OF GRADING AND DRAINAGE

REVISIONS:
1. 2. 3. 4. 5. 6. 7. 8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT:
NEBRASKA GARAGE
HOLLYWOOD FLORIDA

TASK:
STORMWATER POLLUTION PREVENTION PLAN

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 81118
2609 Stirling Road, Suite C-202
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DATE:	SCALE:
May 2015	1"=10'
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 6	OF 8

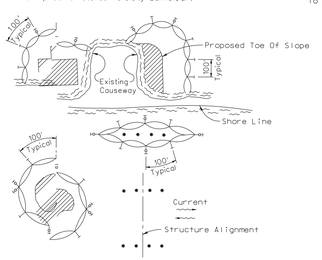
GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER

LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

GENERAL NOTES

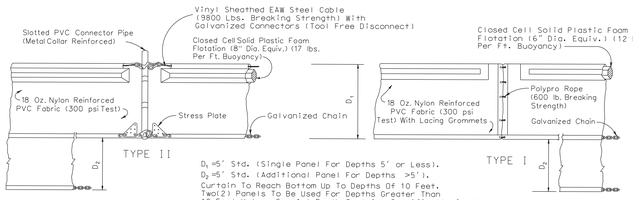
1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.



NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

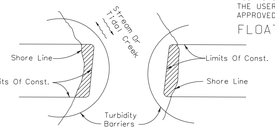
TURBIDITY BARRIER APPLICATIONS



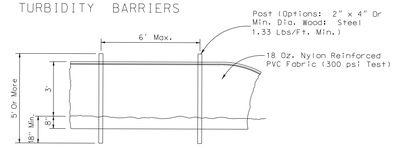
D_1 =5' Std. (Single Panel For Depths 5' or Less).
D_2 =5' Std. (Additional Panel For Depths >5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Two (2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

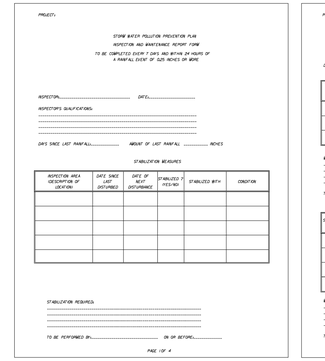


Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans. However payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



STAKED TURBIDITY BARRIER

TURBIDITY BARRIER DETAILS PER FDOT INDEX NO. 103


PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.25 INCHES OR MORE

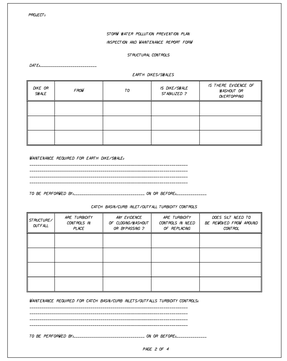
INSPECTOR..... DATE.....
INSPECTOR'S QUALIFICATIONS:
DAYS SINCE LAST RAINFALL..... AMOUNT OF LAST RAINFALL ..... INCHES

STABILIZATION MEASURES

INSPECTION AREA DESCRIPTION OF LOCATION	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED ? YES/NO	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:
TO BE PERFORMED BY..... ON OR BEFORE.....

PAGE 1 OF 4


PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
STRUCTURAL CONTROLS

DATE:.....

EARTH DIKES/SWALES

DIKE OR SWALE	FROM	TO	IS DIKE/SWALE STABILIZED ?	IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING

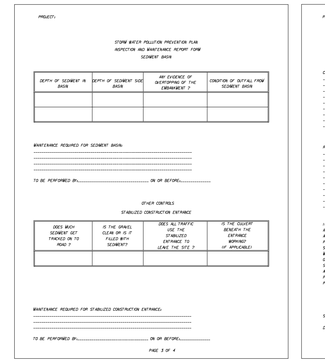
MAINTENANCE REQUIRED FOR EARTH DIKES/SWALES:
TO BE PERFORMED BY..... ON OR BEFORE.....

CATCH BASIN/CURB INLET/OUTFALL TURBIDITY CONTROLS

STRUCTURE/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE	ANY EVIDENCE OF CLOGGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL

MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:
TO BE PERFORMED BY..... ON OR BEFORE.....

PAGE 2 OF 4


PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

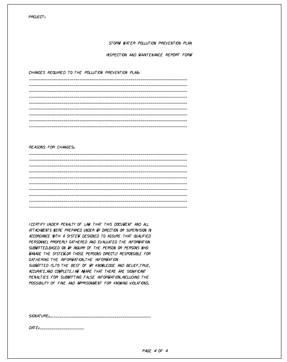
MAINTENANCE REQUIRED FOR SEDIMENT BASIN:
TO BE PERFORMED BY..... ON OR BEFORE.....

OTHER CONTROLS
STABILIZED CONSTRUCTION ENTRANCE

DOES MUD/SEDIMENT TRACKING ONTO ROAD ?	IS THE GRAVEL LARGE ENOUGH TO REMOVE MUD ?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:
TO BE PERFORMED BY..... ON OR BEFORE.....

PAGE 3 OF 4


PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE.....
DATE.....

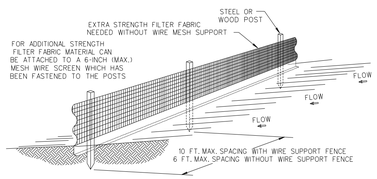
PAGE 4 OF 4

NOTE TO CONTRACTOR:

THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 1 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OVER 0.25 INCHES. IT IS SUGGESTED THAT THIS SHEET BE REMOVED FROM THE PLAN SET AND DUPLICATED AS NEEDED BY THE CONTRACTOR.

1. THE INTENT OF EROSION CONTROL MEASURES INDICATED GRAPHICALLY ON PLANS IS TO PROVIDE A BARRIER TO CONTAIN SILT AND SEDIMENT ON THE PROJECT SITE. THIS REPRESENTATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE TEST OF EROSION CONTROL EFFECTIVENESS IS NOT TO BE DETERMINED BY ADHERENCE TO THE REPRESENT SET FORTH ON THE DRAWINGS AND SPECIFICATIONS, BUT BY MEETING THE REGULATIONS SET FORTH BY THE AUTHORITY HAVING JURISDICTION OVER WATER QUALITY CONTROL AND OTHER SEDIMENTATION RESTRICTION REQUIREMENTS IN THE REGION.
2. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBANCE ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES.
3. INSPECTION OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED WEEKLY, OR AFTER EACH RAINFALL EVENT. REPAIR, AND/OR REPLACEMENT OF SUCH MEASURES SHALL BE MADE PROMPTLY, AS NEEDED.
4. KEEP DUST WITHIN TOLERABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.
5. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED IF DEEMED NECESSARY BY ONSITE INSPECTION.
6. FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION BEING HALTED.
7. DRAINAGE INLETS SHALL BE PROTECTED BY FILTER AND GRADED ROCK AS PER INLET PROTECTION DETAIL.
8. ANY ACCESS ROUTES TO SITE SHALL BE BASED WITH CRUSHED STONE, WHERE PRACTICAL.
9. EROSION CONTROL MEASURES ARE TO BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
10. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
11. ALL WORK IS TO BE IN COMPLIANCE WITH THE RULES AND REGULATIONS SET FORTH BY THE STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF DELRAY BEACH.
12. DISCHARGE FROM DEWATERING OPERATIONS SHALL BE RETAINED ONSITE IN A CONTAINMENT AREA.

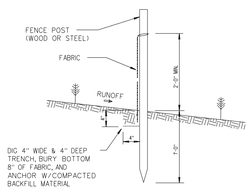
EROSION CONTROL NOTES DETAIL D9.1



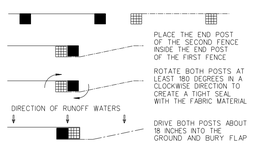
NOTES:

1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 CM) WIDE AND 4 INCHES (10 CM) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25 MM) LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
8. ALL PROJECTS REQUIRE SUBMITTAL OF POLLUTION PREVENTION PLAN (PPP).
9. ALL PROJECTS 1 AC. OR MORE MUST SUBMIT NOTICE OF INTENT (NOI) TO FDEP.

SILT FENCE INSTALLATION DETAIL D 9.1a
Sheet 1 of 2

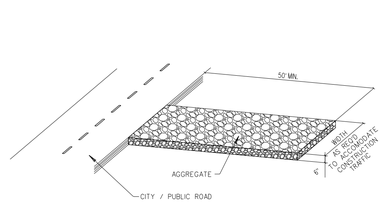


SILT FENCE SECTION
NOT TO SCALE



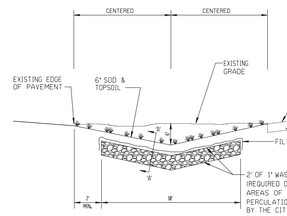
ATTACHING TWO SILT FENCES
NOT TO SCALE

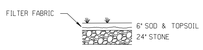
SILT FENCE INSTALLATION DETAIL D 9.1b
Sheet 2 of 2



NOTE:
A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AND CONTAIN AN AGGREGATE LAYER (FDOT AGGREGATE NO.1), AT LEAST 6-INCHES THINK, IT MUST EXTEND TO THE WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA.

STABILIZED CONSTRUCTION ENTRANCE DETAIL D9.1C





SECTION 'A'-'A'
NOT TO SCALE

NOTE:

1. CONTRACTOR TO REPLACE ALL IRRIGATION, TREES & SHRUBBERY IN SWALES DAMAGED DURING CONSTRUCTION.

SWALE REPLACEMENT DETAIL D10.1

REVISIONS: 1. 2. 3. 4. 5. 6. 7. 8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

PROJECT:
NEBRASKA GARAGE
HOLLYWOOD FLORIDA

TASK:

STORMWATER POLLUTION PREVENTION PLAN

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 61018
2699 Stirling Road, Suite C-202
Fort Lauderdale, Florida 33312
Phone: (954) 986-0899
Fax: (954) 986-6535

DATE:	SCALE:
May 2015	N.T.S.
DESIGNED BY: G.G.B.	DRAWN BY: F.M.
PROJECT NO. 14-0608	
SHEET 7	OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER

FILE: //Ggbserver/projects/2013/13-0114/13014 swp02.dgn DATE: Nov. 13, 2013

STORM WATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION CAUSED BY STORM WATER RUN OFF.AN EROSION PROTECTION PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINT AIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL,STATE AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

DURING CONSTRUCTION,STORM WATER DRAINAGE WILL BE PROVIDED BY UTILIZATION OF THE EXISTING DRAINAGE COLLECTION SYSTEM IN THE STREET RIGHT OF WAY OF POLK STREET AND NORTH 19TH AVENUE.THE EXISTING SYSTEM CONVEYS STORM WATER RUNOFF VIA DRAINAGE PIPES TO THE ATLANTIC OCEAN. AFTER STORMWATER UTILITIES ARE INSTALLED,STORM WATER DRAINAGE WILL BE PROVIDED BY CATCH BASINS,EXFILTRATION TRENCH AND DRAINAGE WELLS.DURING VARIOUS PHASES OF CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE STAKED SILT FENCE AND/OR HAY BALE
S OR OTHER BEST MANAGEMENT PRACTICES AS NECESSARY TO COMPLY WITH THE REQUIREMENTS SET FORTH BY LOCAL,STATE AND FEDERAL REQUIRMENT'S.

TIMING OF CONTROLS/MEASURES

IT IS THE CONTRACTOR IS RESPONSIBE FOR THE TIMING OF CONTROLS AND MEASURES AS REQUIRED TO MEET REQUIREMENTS.

CERTIFICATION OF COMPLIANCE WITH FEDERAL,STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL,STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS,THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

- ERP APPLICATION
- BRO COUNTY DPEP

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED.BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM,OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION,THE INFORMATION SUBMITTED IS,TO THE BEST OF MY KNOWLEDGE AND BELIEF,TRUE,ACCURATE,AND COMPLETE.I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION,INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN.IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

SEQUENCE OF MAJOR ACTIVITIES:

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
2. DEMO AND CLEAR SITE
3. INSTALL UNDERGROUND UTILITIES.
4. COMPLETE FINAL GRADING OPERATIONS.
5. CONTINUE WITH E&S CONTROL MEASURES.
6. START BUILDING FOUNDATION.
7. CONTINUE WITH E&S CONTROL MEASURES.
8. COMPLETE BUILDING CONSTRUCTION.
9. CONTINUE WITH E&S CONTROL MEASURES.
10. COMPLETE CURB AND SIDEWALK CONSTRUCTION
11. REMOVE ACCUMULATED SEDIMENTS FROM STORM WATER MANAGEMENT SYSTEM.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES,THE SILT FENCES AND HAY BALES WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY PORTIONS OF THE SITE.AS CONSTRUCTION PROCEEDS,THE CONTRACTOR MUST BE DILIGENT TO UN-INSTALL AND RE-INSTALL PORTIONS OR
ALL OF THE SILT FENCE OR HAY BAR'S OR TAKE OTHER MEASURES NECESSARY TO MAINTAIN THE SYSTEM IN ACCORDANCE WITH ALL REGULATIONS.

ENDANGERED SPECIES AND CRITICAL HABITAT

1. ARE THERE ENDANGERED SPECIES ON SITE? NO.
2. ARE THERE CRITICAL HABITAT ON SITE? NO.

IF YES TO EITHER QUESTION,PLEASE EXPLAIN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE GRADING,DRAINAGE & EROSION CONTROL PLAN.IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED,MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE.THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE GRADING,DRAINAGE & EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES,AS REQUIRED,TO ENSURE THE SITE MEETS ALL FEDERAL,STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS.THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE GRADING,DRAINAGE & EROSION CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS
STABILIZATION PRACTICES (IF APPLICABLE):

1. HAY BALE BARRIER:HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT.IF NECESSARY,MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

   REFER TO EROSION CONTROL DETAILS FOR CONSTRUCTING THE HAY BALE BARRIER. ALSO REFER TO THE GRADING,DRAINAGE & EROSION CONTROL PLAN FOR PROPER LOCATION
2. FILTER FABRIC BARRIER:FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.

   REFER TO THE EROSION CONTROL DETAILS FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.
3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
4. LEVEL SPREADER:A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS.THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED.THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.
5. STOCKPILING MATERIAL:NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
6. EXPOSED AREA LIMITATION:THE SURFACE AREA OF OPEN,RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE MINIMIZED.
7. INLET PROTECTION:INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
8. DUST CONTROL: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL TREATMENT WITHIN 30 DAYS SHALL BE STABILIZED.
9. TEMPORARY SEEDING AND MULCHING:SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
10. TEMPORARY GRASSING:THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
11. TEMPORARY REGRASSING : IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER,THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
13. PERMANENT EROSION CONTROL:THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL,AS A MINIMUM,BE SEEDED.THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION.SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES (IF APPLICABLE):

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
   THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:
   A. BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.
   B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED,BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS.
   C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL.THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY.SILT FENCES & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.
4. SEDIMENT BASIN: (NOT APPLICABLE)

OTHER CONTROLS

WASTE DISPOSAL (IF APPLICABLE):

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER.THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL.ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL.NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT.THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS,WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER.SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT,THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS,WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE.THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS.THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT AS NEEDED TO REMOVE ANY EXCESS MUD,DIRT OR ROCK TRACKED FROM THE SITE.DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

[X] Concrete	[X] Fertilizers	[X] Wood
[X] Asphalt	[X] Petroleum Based Products	[X] Masonry Blocks
[X] Tar	[X] Cleaning Solvents	[X] Roofing Materials
[X] Detergents	[X] Paints	[X] Metal Studs
[ ] _____	[ ] _____	[ ] _____

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT,ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND,IF POSSIBLE,UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE,ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED;THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF,MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER.ONCE APPLIED,FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA,THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE.EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN,THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE.EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS,DUST PANS,MOPS,RAGS, GLOVES,GOGGLES,LIQUID ABSORBENT (I.e.KITTY LITTER OR EQUAL), SAND,SAWDUST,AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY,REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE.A DESCRIPTION OF THE SPILL,WHAT CAUSED IT,AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS,WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING.THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP.THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE,IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

NO MORE THAN 5 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT. THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT,AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER.IF A REPAIR IS NECESSARY,IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT,TEARS,TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS,AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.
- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS,WASHOUTS,AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
  THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER,ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS,OR STORM WATER MANAGEMENT PLANS.
  THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED.THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
- THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS,MAINTENANCE AND REPAIR ACTIVITIES,AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT.THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER LINE FLUSHING
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
- UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

RESPONSIBLE FOR/DUTIES	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	SIGNATURE
GENERAL CONTRACTOR		
SUBCONTRACTOR		
SUBCONTRACTOR		
SUBCONTRACTOR		
SUBCONTRACTOR		

REVISIONS:
1. 2. 3. 4. 5. 6. 7. 8.

CLIENT:
Kaller Architects
2417 Hollywood Boulevard
Hollywood, Florida 33020-6605
(954) 920-5746

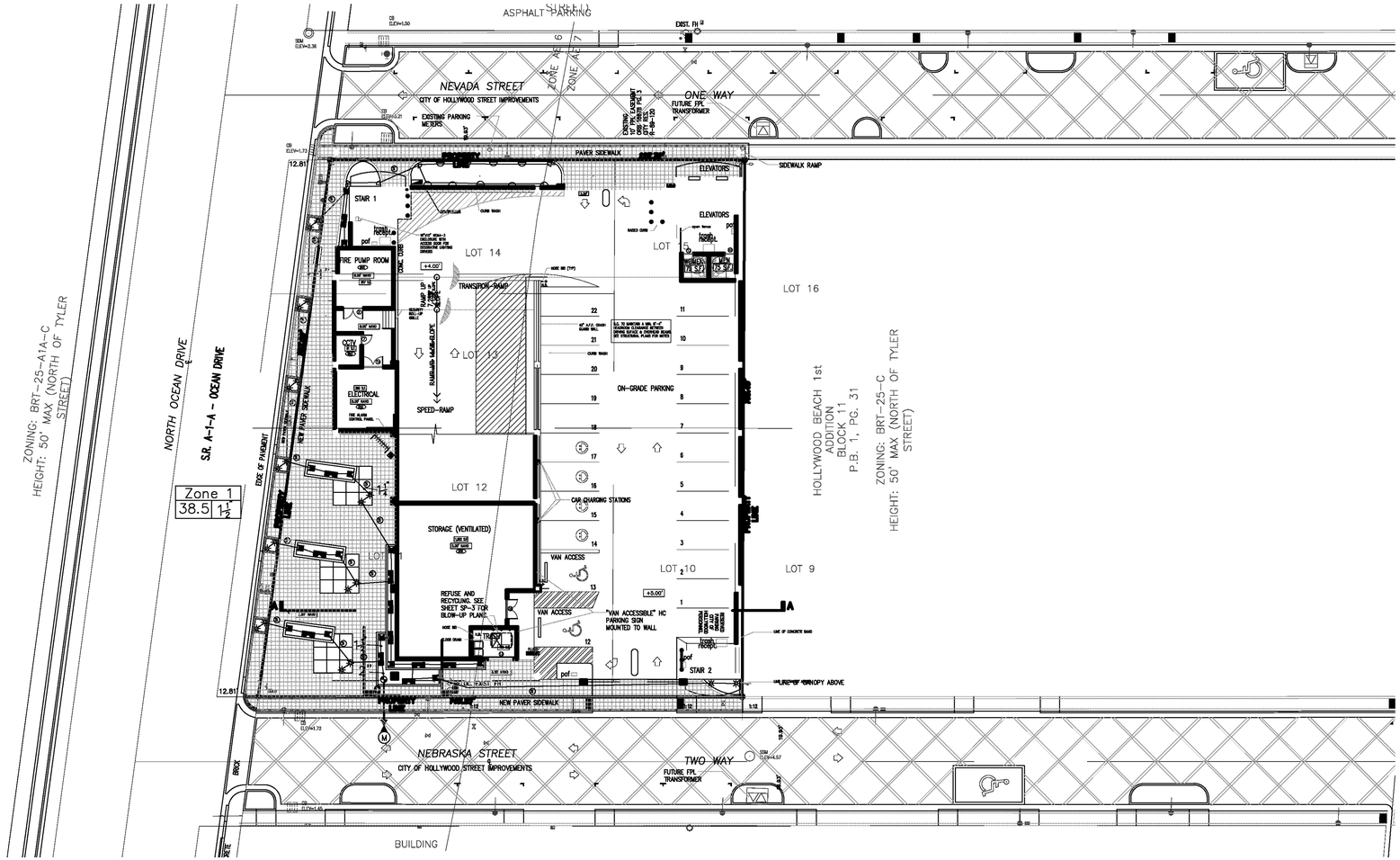
PROJECT: NEBRASKA GARAGE HOLLYWOOD FLORIDA
TASK:
STORMWATER POLLUTION PREVENTION PLAN

GGB Engineering, Inc.
CIVIL AND FORENSIC ENGINEERS • LAND PLANNERS
CONSTRUCTION MANAGERS
FLORIDA REGISTRATION No. 6118
2699 Stirling Road, Suite C-202
Fort Lauderdale, Florida 33312
Phone: (954) 986-9899
Fax (954) 986-8655

DATE: May 2015
SCALE: N.T.S.
DESIGNED BY: G.G.B.
DRAWN BY: F.M.
PROJECT NO. 14-0608
SHEET 8 OF 8

GARY G. BLOOM, P.E.
FLA LIC. No. 19832
NOT VALID UNLESS SIGNED AND SEALED BY ENGINEER

FILE: //Gbserver/projects/2013/13-0114/13014 swp03.dgn DATE: Aug. 20, 2015



N

IRRIGATION PLAN

SCALE: 1" = 20'-0"

0 20' 40' 80'

IRRIGATION LEGEND:

- MAIN LINE - 1-1/2" Feed From City Water Source
- LATERAL ZONE LINES - SCH PVC as noted
- ZONE BOUNDARIES
- BACK FLOW See Point of Connection Detail.
- CONTROLLER - Toro Custom Command Series Electric 6 station controller #CC-P-6 mounted on Southwest corner of structure, with a Rain Check automatic rain sensor shutoff switch mounted outside on eave of structure.
- ZONE VALVES - Toro 252 Series.
- (M) PROPOSED WATER METER - 1" or per City Code.
- (S) SLEEVES - Sch. 40, 2 Sizes Larger. NOTE - Pipe Size Shown is the Lateral Size, NOT the Sleeve Size
- 6" POP-UP SPRAY - Toro 570 Series MPR Spray Nozzles as Required. NOTE - All of the below may not be used.

15' Series -	12' Series -	10' Series -	8' Series -
15-Q-PC - 1/4'	12-Q-PC - 1/4'	10-Q-PC - 1/4'	8-Q-PC - 1/4'
15-T-PC - 1/3'	12-T-PC - 1/3'	10-T-PC - 1/3'	8-T-PC - 1/3'
15-H-PC - 1/2'	12-H-PC - 1/2'	10-H-PC - 1/2'	8-H-PC - 1/2'
15-TT-PC - 2/3'	12-TT-PC - 2/3'	10-TT-PC - 2/3'	8-TT-PC - 2/3'
15-TQ-PC - 3/4'	12-TQ-PC - 3/4'	10-TQ-PC - 3/4'	8-TQ-PC - 3/4'
15-F-PC - Full	12-F-PC - Full	10-F-PC - Full	8-F-PC - Full

- 4S-SST-PC 4 x 18'
- 4-EST-PC 4 x 15'
- 4-CST-PC 4 x 30'
- 6" POP-UP FLOOD BUBBLER - Toro 570 Series MPR Pressure Compensating Nozzles as Required.

SYSTEM DESIGN OPERATING PRESSURE = Between 35 and 40 psi.

Zone 2 | 37.6 | 1 1/2 — Zone Number / Valve Size / GPM per Zone

- 4" POP-UP ROTOR - Hunter PGM Rotor W/ Appropriate Nozzle as Required

IRRIGATION NOTES:

Piping:

Main Lines: PVC SDR 26, Class 160 Solvent Weld.

Zone Lines: PVC; 1/2 in. and 3/4 in. are not used. Min. pipe is 1 in. 315 PSI: 1 in. = SDR 21. 200 PSI: 1-1/4 in. and greater = SDR 26, 160 PSI. All solvent weld.

All end of the line unmarked pipe = 1 in. (min.).

Sleeves and suction Line: PVC, SCH 40.

Fittings: SCH 40 PVC

Fabrication: To manufacturers specifications. Use blue or grey PVC cement, square cut, clean and prime all joints.

Allow all main lines to cure for 24 hours before pressuring.

All pipe, fittings, and solvents to conform to latest ASTM specs.

Depth of Lines: Main Line and wiring = 18 in. depth, min.
Sleeving under pavement = 24 in. depth, min.
Suction Line = 24 in. depth, nominal.
Zone Lines 1-1/2 in. and smaller = 10 in. depth, min.

Control Wires: AWG 14 for all hot wires and AWG 12 for common.
Solid copper type UF UL listed for direct burial.
Run wires under main and tape every 20 feet.
Run spares, two min.
Splice wires only in a valve box. All splices shall be moisture proof using Snap tite or DBY UL connectors.
Common shall be white, hot shall be red or color coded.
Spare shall be black. Run in conduit where no Main line runs.

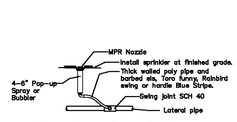
Backfill all trenches free of debris, compact to original density, flush all lines, use screens in all heads, adjust heads for proper coverage avoiding excess water on walls, walks, etc.

All details are graphically shown only. All quantities shall be verified by the contractor prior to installation. It shall be the contractors responsibility to assure complete overlapping coverage. Any discrepancies shall be reported to the owner and landscape architect before proceeding. Codes and local regulations shall take precedence over these plans. It is the contractors responsibility to comply. The landscape architect reserves the right to make minor field changes, the contractor may field adjust spray nozzle selection to provide for proper 100% min. coverage.

Provide owner with an accurate as installed plan(s) at completion showing main lines, wiring, valves, crossings, etc. using dimensions from fixed datums.

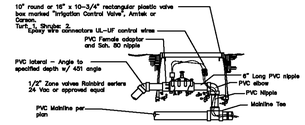
Contractor shall verify all underground utilities prior to commencement of work.

The perimeter irrigation and landscape may be required to be installed prior to either or both pump stations and all main line / valve wiring. A separate plan showing modifications and alternate water source will be provided prior to construction. The modifications will not impact upon the design intent or substantially affect the construction plan.



4 or 6' Pop-up Spray / Bubbler Detail

NTS



Zone Valve Detail

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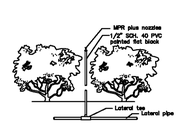

Shrub Riser Spray Detail

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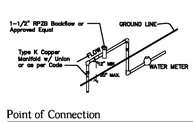

Point of Connection

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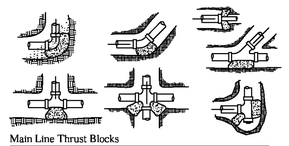

Main Line Thrust Blocks

NTS

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Landscape Architecture & Land Planning
Landscape Architect - Florida License #6666709
4855 NW 92 Terrace
Coral Springs, Florida 33067
Tel: 561-414-8269
Email: wtonning@tonningandassociates.com

DRWG. TITLE : IRRIGATION PLAN - GROUND FLOOR

PROJECT : NEBRASKA GARAGE
327 NEBRASKA STREET
HOLLYWOOD, FLORIDA 33019

CLIENT : KALLER ARCHITECTS

SEAL

WAYNE K. TONNING, R.L.A.
FLA # 6666709

PROJECT NO. 15-110
DRAWN BY WKT
DESIGNED BY WKT
CHECKED BY WKT
DATE : 04-17-15
DWG. NO. LI-1
SHT. NO. 1 of 2
REVISIONS : 11-18-16

CHAMELEON WAYS
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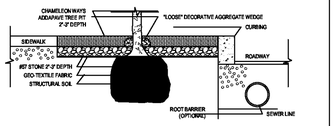
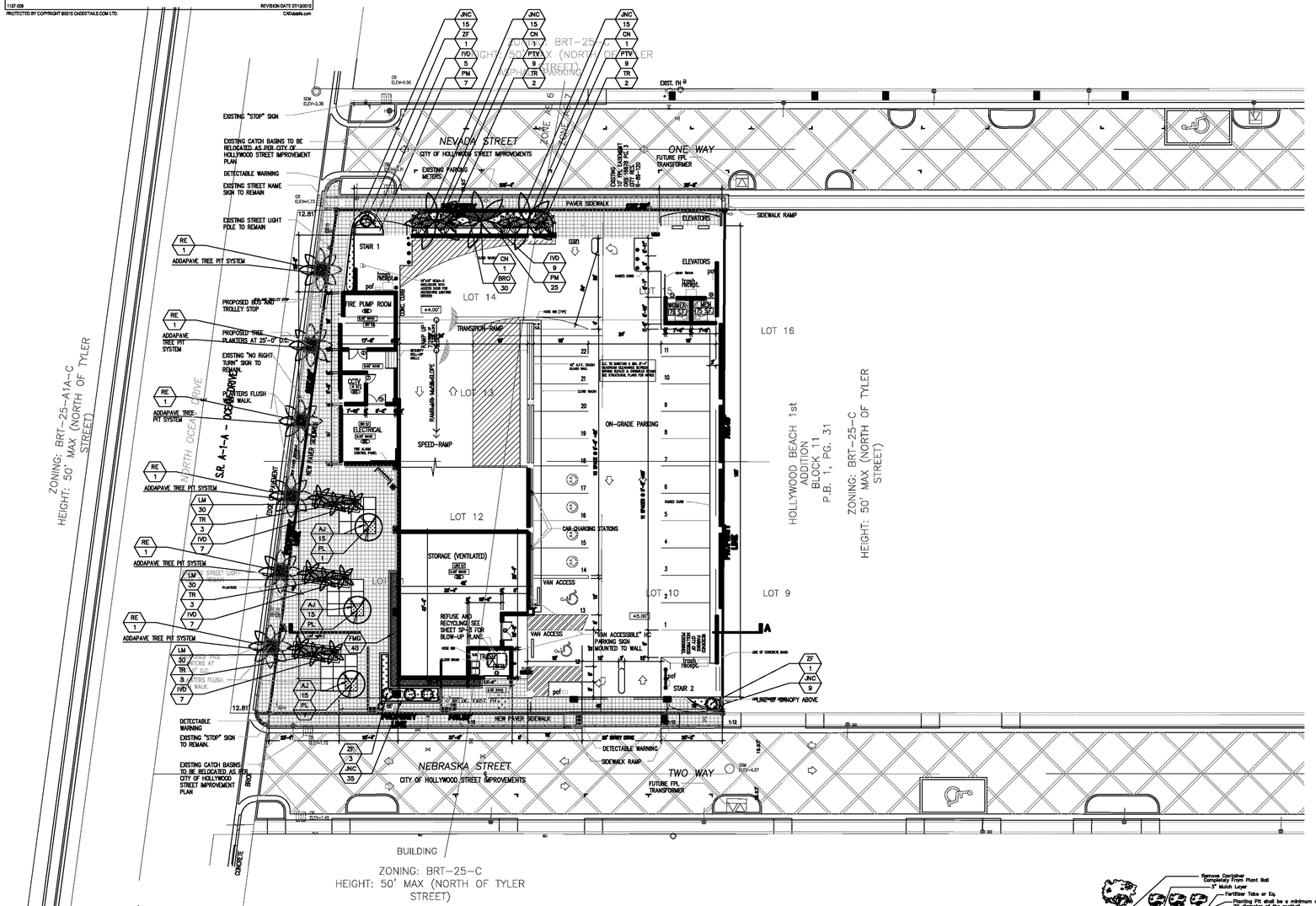
CENTER VALLEY, PA 18034
TOLL FREE: 1-877-426-5687
PHONE: (610) 797-2645
FAX: (610) 336-0117
www.chameleonwayspa.com



NOTES:
1. A SUITABLE STEEL, WOOD, BRICK, STONE OR ALUMINUM EDGING SHOULD BE PROVIDED TO ENSURE A NEAT EDGE DETAIL.
2. ANY ADVICE, RECOMMENDATION OR INFORMATION GIVEN BY CHAMELEON WAYS, INC IS BASED ON PRACTICAL EXPERIENCE AND IS BELIEVED TO BE ACCURATE AT THE TIME OF PUBLICATION, NO LIABILITY OR RESPONSIBILITY OF ANY KIND (INCLUDING LIABILITY FOR NEGLIGENCE) IS ACCEPTED IN THIS RESPECT BY THE COMPANY, ITS EMPLOYEES, OR APPLICATORS.
3. IT IS RECOMMENDED THAT A CERTIFIED PROFESSIONAL ENGINEER DESIGN AND DEVELOP THE PROPER BASE STRUCTURE REQUIREMENTS TO SUPPORT THE EXPECTED LOADS AND TAKING INTO ACCOUNT THE CLIMATE AND SITE SPECIFIC CONDITIONS WHICH MAY EXIST.
4. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
5. DO NOT SCALE DRAWING.
6. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
7. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
8. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/rb AND ENTER REFERENCE NUMBER 1137-009.

ADDAPAVE TREE PIT SYSTEM
ADDAPAVE TREE PIT SYSTEM

1137-009 REVISION DATE 07/13/2015
 CADdetails.com



N LANDSCAPE PLAN
SCALE: 1" = 20'-0"

0 20' 40' 80'

PROPOSED PLANT LIST

TREES / PALMS

Code		Drought	QTY.	Botanical Name / Common Name	Specifications
CN		V	3	Cococ nucifera / Coconut Palm	B&B Field Grown, 20–25' OA
PL		V	3	Psidium littorale / Cattley Guava–Multi–Trunk	B&B Field Grown, 10–12' OA, 4' Clear Trunks
RE	(N)	V	6	Roystonea regia / Florida Royal Palm	B&B Field Grown, 20–25' OA
TR	(N)	V	13	Thrinax radiata / Thatch Palm	B&B Field Grown, 8–10' OA

ACCENTS / SHRUBS / GROUND COVERS

AJ		V	45	Trachelospermun asiaticum / Asiatic Jasmine	1 Gal., 12" OC
BRO		V	30	Bromeliads / Fire Ball Bromeliads	1 Gal., 12" OC
FMG		V	40	Ficus macrocarpa Green Island / Green Island Ficus	3 Gal., 24" OA, 2' OC
IVD	(N)	V	35	Ilex vomitoria / Dwarf Schellings Ilex	3 Gal., 24" OA, 2' OC
JNC	(N)	V	89	Juniperus conferta / Shore Juniper	3 Gal., 24" OA, 2' OC
LM		V	90	Lirope muscari / Liriope	1 Gal., 12" OC
PM		V	32	Podocarpus macrophylla / Podocarpus	3 Gal., 24" OA, 2' OC
PTV		V	18	Pittosporum tobira / Varigated Pittosporum	3 Gal., 24" OA, 30" OC
ZF		V	5	Zamia furfuracea / Cardboard Plant	7 Gal., 36" OA, 30" OC

MISCELLANEOUS

(N)	Florida Native Plant Species
L	Low Drought Tolerance
M	Moderate Drought Tolerance
V	Very Drought Tolerant

* Species subject to Change at time of Building Permit

NOTES:

GENERAL PLANTING REQUIREMENTS

All sizes shown for plant material on the plans are to be considered Minimum. All plant material must meet or exceed these minimum requirements for both height and spread. Any other requirements for specific shape or effect as noted on the plan(s) will also be required for final acceptance.

All plant material furnished by the landscape contractor shall be Florida #1 or better as established by "Grades and Standards for Florida Nursery Plants" and "Grades and Standards for Florida Nursery Trees". All material shall be installed as per CSI specifications.

All plant material as included herein shall be warrantied by the landscape contractor for a minimum period as follows: All trees and palms for 12 months, all shrubs, vines, groundcovers and miscellaneous planting materials for 90 days, and all lawn areas for 60 days after final acceptance by the owner or owner's representative.

All plant material shall be planted in planting soil that is delivered to the site in a clean loose and friable condition. All soil shall have a well drained characteristic. Soil must be free of all rocks, sticks, and objectionable material including weeds and weed seeds as per CSI specifications.

Twelve inches (12") of planting soil 50/50 sand/topsoil mix is required around and beneath the root ball of all trees and palms, and 1 cubic yard per 50 bedding or groundcover plants.

All landscape areas shall be covered with Eucalyptus or sterilized seed free Melaleuca mulch to a minimum depth of three inches (3") of cover when settled. Cypress bark mulch shall not be used.

All plant material shall be thoroughly watered in at the time of planting; no dry planting permitted. All plant materials shall be planted such that the top of the plant ball is flush with the surrounding grade.

All landscape and lawn areas shall be irrigated by a fully automatic sprinkler system adjusted to provide 100% coverage of all landscape areas. All heads shall be adjusted to 50% overlap as per manufacturers specifications and performance standards utilizing a rust free water source. Each system shall be installed with a rain sensor.

Each lot shall supply, install, and maintain an individual irrigation system for that individual lot.

It is the sole responsibility of the landscape contractor to insure that all new plantings receive adequate water during the installation and during all plant warranty periods. Deep watering of all new trees and palms and any supplemental watering that may be required to augment natural rainfall and site irrigation is mandatory to insure proper plant development and shall be provided as a part of this contract.

All plant material shall be installed with fertilizer, which shall be State approved as a complete fertilizer containing the required minimum of trace elements in addition to N–P–K, of which 50% of the nitrogen shall be derived from an organic source as per CSI specifications.

Contractors are responsible for coordinating with the owners and appropriate public agencies to assist in locating and verifying all underground utilities prior to excavation.

All ideas, designs and plans indicated or represented by this drawing are owned by and are the exclusive property of Wayne K. Tonning,RLA.

The plan takes precedence over the plant list.

SPECIAL INSTRUCTIONS

General site and berm grading to +/– 1 inch (1") shall be provided by the general contractor. All finished site grading and final decorative berm shaping shall be provided by the landscape contractor.

All sod areas as indicated on the planting plan shall receive Stenotaphrum secundatum, St. Augustine 'Floratam' solid sod. It shall be the responsibility of the landscape contractor to include in the bid, the repair of any sod which may be damaged from the landscape installation operations.

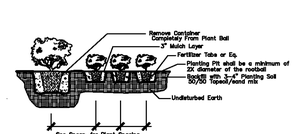
All existing palms to be trimmed and cleaned.

Existing automatic underground irrigation is functional. Rain sensor is to be provided/active.

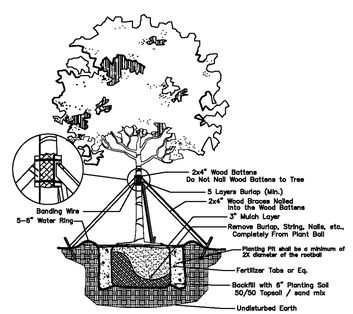
Landscape permits are required before any planting occurs. Permits are obtained from the Building Department.

Trees are to be planted at a depth so that the root–flare and top of first order root(s) are fully visible.

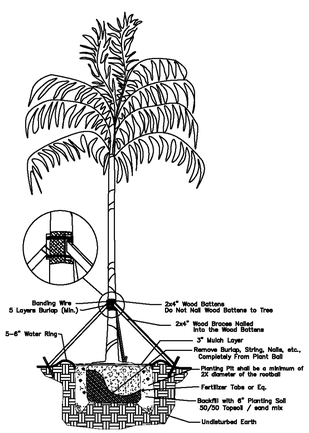
Existing trees, palms, accents, hedges, shrubs, groundcover and sod must be healthy, maintained and live at final inspection. Also, the existing hedges must be continuous and at least 24" tall.



Shrub & Ground Cover Planting Detail
NTS



Large Tree Planting Detail
NTS



Palm Planting Detail
Not to Scale

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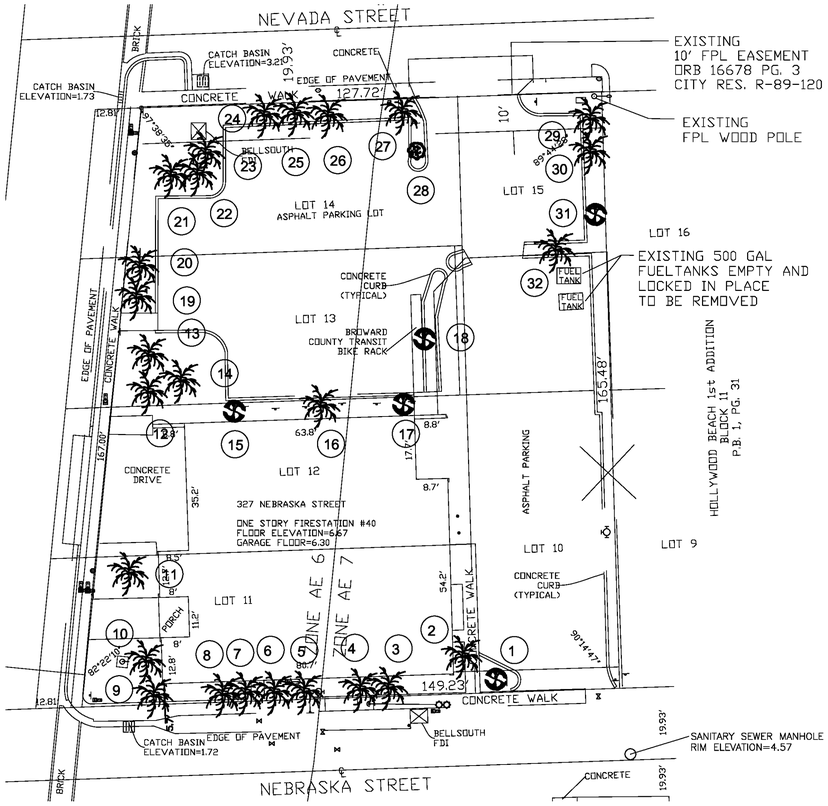
DRWG. TITLE : GROUND FLOOR – LANDSCAPE PLAN

PROJECT : NEBRASKA GARAGE
327 NEBRASKA STREET
HOLLYWOOD, FLORIDA 33019

CLIENT : KALLER ARCHITECTS

SEAL
WAYNE K. TONNING, RLA
RLA #6666709

PROJECT NO.	15–110
DRAWN BY	WKT
DESIGNED BY	WKT
CHECKED BY	WKT
DATE :	04–17–15
DWG. NO.	LP–1
SHT. NO.	1 of 2
REVISIONS :	
	12–07–15
	11–18–16
	01–05–17
	01–11–17



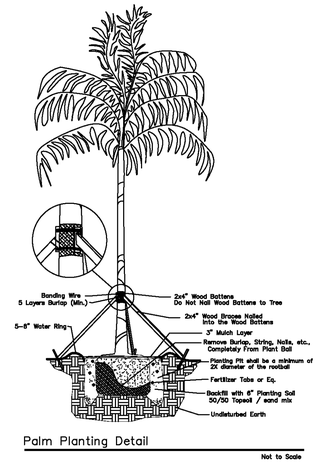
NOTE:
Contractor to relocate trees/palms as shown. Location will be determined by City of Hollywood Landscape Architect, CRA and contractor. Any mitigation and fees shall be determined at time of building permit.

NEBRASKA GARAGE – HOLLYWOOD, FLORIDA

Tree #	Type	Caliper	Height	Width Of Canopy	Disposition: Remove	Remain	Relocate	Condition
1	Carrotwood	10"	25'	25'	x			Good
2	Sabal Palm	10"	6'	5'	x			Good
3	Sabal Palm	10"	15'	7'	x			Good
4	Sabal Palm	10"	15'	7'	x			Good
5	Sabal Palm	10"	15'	7'	x			Good
6	Sabal Palm	10"	15'	7'	x			Good
7	Sabal Palm	10"	15'	7'	x			Good
8	Sabal Palm	10"	15'	7'	x			Good
9	Sabal Palm	10"	15'	7'	x			Good
10	Royal Palm	16"	25'	15'			x	Good
11	Royal Palm	16"	25'	15'			x	Good
12	Royal Palm	16"	25'	15'			x	Good
13	Royal Palm	16"	25'	15'			x	Good
14	Royal Palm	16"	25'	15'			x	Good
15	Carrotwood	8"	20'	15'	x			Good
16	Sabal Palm	10"	20'	10'	x			Good
17	Carrotwood	8"	20'	15'	x			Good
18	Carrotwood	6"	15'	10'	x			Good
19	Sabal Palm	10"	15'	10'	x			Dead
20	Sabal Palm	10"	15'	10'	x			Good
21	Coconut Palm	12"	25'	15'			x	Good
22	Coconut Palm	12"	25'	15'			x	Good
23	Coconut Palm	12"	25'	15'			x	Good
24	Sabal Palm	10"	20'	10'	x			Good
25	Sabal Palm	10"	20'	10'	x			Good
26	Sabal Palm	10"	20'	10'	x			Good
27	Sabal Palm	10"	20'	10'	x			Good
28	Ligustrum	3"	6'	6'	x			Good
29	Sabal Palm	10"	15'	15'	x			Good
30	Sabal Palm	10"	15'	15'	x			Good
31	Ligustrum	3"	6'	6'	x			Good
32	DEAD-Stump	0	0	0	x			Good

N EXISTING CONDITIONS PLAN
SCALE: 1" = 20'-0"

0 20' 40' 80'



Palm Planting Detail
Not to Scale

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DRWG. TITLE : EXISTING LANDSCAPE PLAN
PROJECT : NEBRASKA GARAGE
327 NEBRASKA STREET
HOLLYWOOD, FLORIDA 33019
CLIENT : KALLER ARCHITECTS

SEAL
WAYNE K. TONNING, RLA
RLA #6666709

PROJECT NO. 15-110
DRAWN BY WKT
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CHECKED BY WKT
DATE : 04-17-15
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SHT. NO. 2 of 2
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