

CITY OF ALBUQUERQUE



Planning Department
Suzanne Lubar, Director

Mayor Richard J. Berry

September 1, 2017

Hugh Floyd, PE
Floyd Development Services, LLC
918 Pinchurst Rd. Suite 101
Rio Rancho, NM 87124

**Re: Kiddie Academy
7010 Alameda Blvd. NE
Request Temporary C.O. - Accepted (C19D961)
Engineer Stamp Dated 11/14/16**

PO Box 1293

Dear Mr. Floyd,

Albuquerque

Based on the Certification received 8/31/2017, the site is acceptable for a 60-day Temporary Release of Certificate of Occupancy by Hydrology. However, before a permanent CO can be accepted the following comments must be addressed:

NM 87103

- Private Drainage Covenant Required prior to permanent Certificate of Occupancy.

An inspection by our office will need to take place after these corrections are made.

www.cabq.gov

If you have any questions, you can contact me at 924-3986 or Totten Elliott at 924-3982.

Sincerely,

James D. Hughes, P.E.
Principal Engineer, Planning Dept.
Development and Review Services

TE/JH

C: email Serna, Yvette M.; Fox, Debi; Tena, Victoria C.; Sandoval, Darlene M.

The following calculations are based on Albuquerque Development Process Manual, Section 22.2

Treatment Type Areas				
Area _A =	0	ac	Area _B =	0.3233 ac
Area _C =	0.1940	ac	Area _D =	0.7759 ac

$$Q_A = 1.87 \text{ cfs/ac} \quad Q_B = 2.60 \text{ cfs/ac} \quad Q_C = 3.45 \text{ cfs/ac} \quad Q_D = 5.02 \text{ cfs/ac}$$
$$Q_p = Q_A \cdot \text{Area}_A + Q_B \cdot \text{Area}_B + Q_C \cdot \text{Area}_C + Q_D \cdot \text{Area}_D = 5.4 \text{ cfs}$$

Treatment Type Areas			
Area _A =	0	ac	
Area _B =	0.0706	ac	
Area _C =	0.0706	ac	
Area _D =	0.9955	ac	

$Q_A = 1.87$ cfs/ac $Q_B = 2.60$ cfs/ac $Q_C = 3.45$ cfs/ac $Q_D = 5.02$ cfs/ac

$$Q_p = Q_A \cdot \text{Area}_A + Q_B \cdot \text{Area}_B + Q_C \cdot \text{Area}_C + Q_D \cdot \text{Area}_D \equiv \quad 5.4 \quad \text{cfs}$$
$$V_{WD} = \text{Area}_p \cdot 0.34'' = 1229 \text{ ft}^3$$

Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)
5310.25	35	0	0
5311.0	108	53	53
5312.0	267	188	241
5312.85	461	310	550

Total Water Quality Volume = 1038 ft³

Circular Channel

Input	
Flow	5.4 cfs
Slope	0.015 ft/ft
Manning's n	0.011
Diameter	12 in
Output	
Depth	0.870 ft
Flow Area	0.726 sf
Velocity	7.44 fps
Velocity Head	0.861 ft
Top Width	0.672 ft
Froude Number	1.26
Critical Depth	0.935 ft
Critical Slope	0.0142 ft/ft

THE CHANGES SHOWN HEREON ARE BASED UPON A FIELD SURVEY CONDUCTED BY ME OR UNDER MY SUPERVISION AND REFLECT THE LOCATIONS (VERTICALLY AND HORIZONTALLY) TO THE BEST OF MY KNOWLEDGE AND BELIEF.

8/31/1
DATE



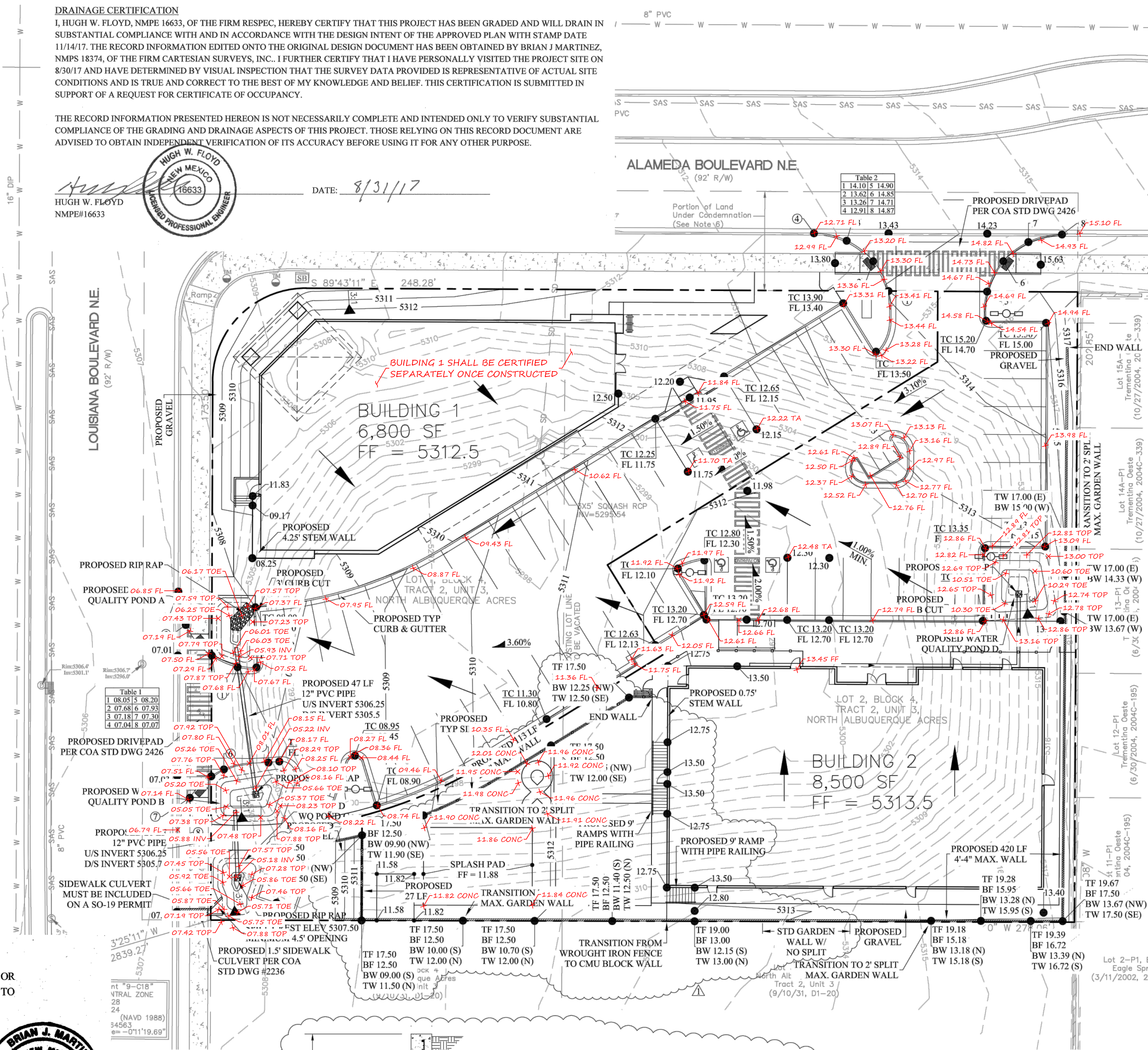
- | | |
|---|--------------------------|
|  | STORM DRAIN MANHOLE |
|  | TRAFFIC MAST |
|  | SIGNAL BOX |
|  | INLET GRATE |
| — 5302 — | EXISTING CONTOURS |
| — 5312 — | PROPOSED CONTOURS |
|  | PROPOSED SPOT ELEVATIONS |

I, HUGH W. FLOYD, NMPE 16633, OF THE FIRM RESPEC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN WITH STAMP DATE 11/14/17. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN J MARTINEZ, NMPE 18374, OF THE FIRM CARTESIAN SURVEYS, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 8/30/17 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

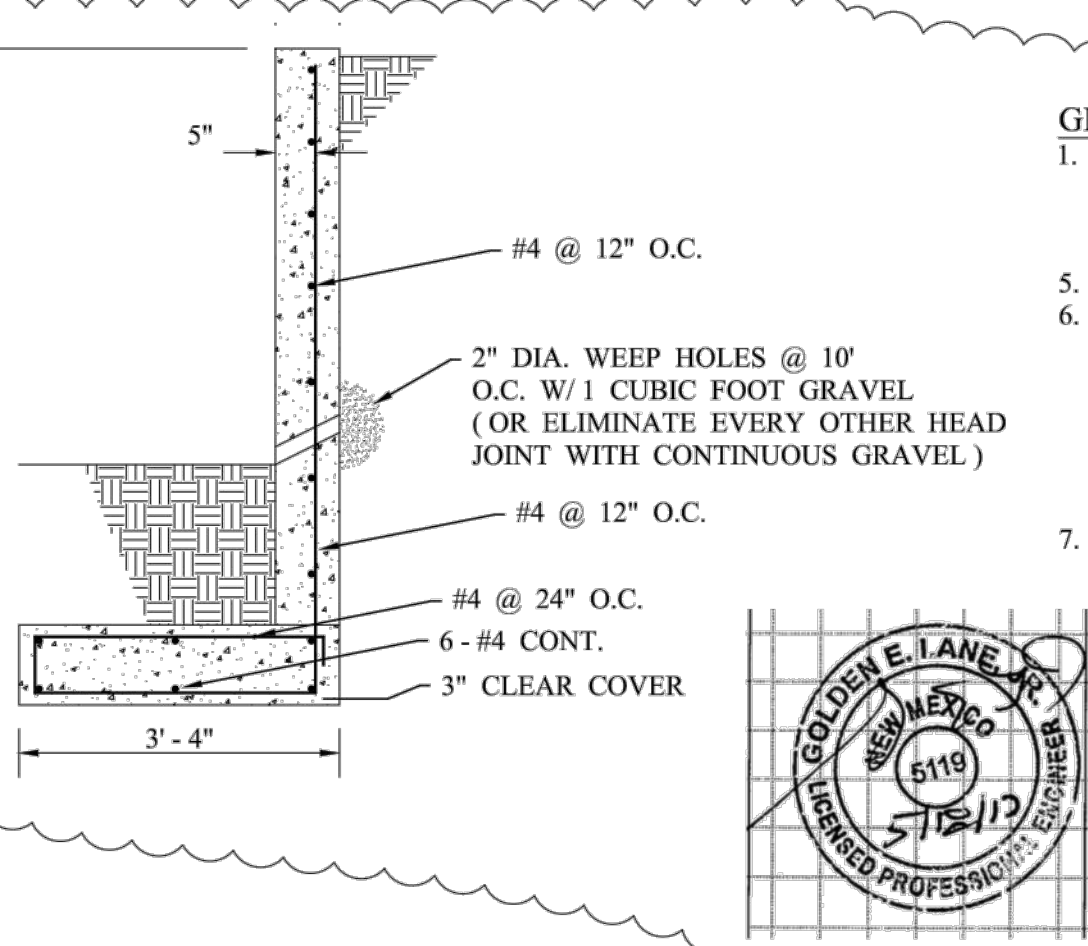
HUGH W. FLOYD
NMPE#16633

DATE: 8/31/17



1.	CONCRETE	3000 psi
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6. REINFORCING GRADE 40
SEE GEOTECHNICAL INVESTIGATION REPORT, EEG
PROJECT NO. A17-49, SEC ALAMEDA & LOUISIANA,
ALBUQUERQUE, NM, BY EARTHWORKS ENGINEERING
GROUP, LLC, DATED FEBRUARY 6, 2017 FOR
PREPARATION AND COMPACTION TO ACHIEVE A
MINIMUM BEARING CAPACITY OF 2500 PSF. HAND
COMPACT BACKFILL IN 12" LIFTS.
7. INSTALL CONTROL JOINTS WITH ONE VERTICAL BAR
EACH SIDE OF JOINT AT A MAXIMUM SPACING OF 12"



Lots 1 & 2 account for approximately 1.3 acres in Block 4, Tract 2, Unit 3 of North Albuquerque Acres in Bernalillo County, New Mexico. These lots are located on the southeast corner of the intersection of Alameda Boulevard and Louisiana Boulevard. The site has been previously developed to serve as a drainage pond to relieve Alameda Boulevard of excess runoff. Due to recent roadway and storm drain improvements along Alameda Boulevard, the existing pond can be eliminated per the Drainage report for the Alameda Widening Project (TEC, January 2012). Storm water from the site is restricted by the North Albuquerque Acres Drainage Plan to 5.4 cfs.

Hydrology calculations for the properties are performed in accordance with the Albuquerque DPM Section 22.2 using the Rational Method to calculate peak flow rates to insure all flow paths are sufficient to carry flows to the water quality ponding located on-site. The water quality ponding volume required was calculated by multiplying the impervious area onsite by the first flush runoff value of 0.34". The hydrology and hydraulic calculations can be found on this sheet.

The existing site is a detention pond with 3:1 (H:V) slopes, a bottom elevation of 5297, and maximum spill crest elevation of 5307. There is a 3x5' square reinforced concrete pipe with an invert of 5295.54 located at the bottom of the pond. Lots 1 & 2 do not appear to be receiving additional surface runoff from adjacent lands.

The Alameda storm drain system has been constructed to convey the runoff previously held by the existing detention pond west to the San Pedro storm drain. Therefore, the existing detention pond is no longer needed per the report referenced above.

The Hydrology Report for North Albuquerque Acres by Resource Technology, Inc. in November 1998 is used to determine the allowable discharge from the site. The subject property is located in subbasin 117.4 per this report. Table B-3 on page Appendix - 19 assigns future conditions land treatment types as 0% A, 25% B, 15% C, and 60% D for this subbasin. The allowable discharge using the Rational Method and the assigned treatment types above is 5.4 cfs. The calculation is shown on the left side of this sheet.

It is proposed that the site, in general, drains from east to west toward Louisiana Boulevard. The small amount of runoff from the area south of Building 2 and the play area west of Building 2 are contained within the play area, which has a permeable surface and is recessed approximately 1'. Accordingly, this area is removed from the subbasin area for the 100 year storm water runoff. Under proposed conditions, the remainder of the site generates 5.4 cfs. See Hydrology Calculations on the left side of this sheet. Therefore, no detention ponding is required to reduce the flow rate. Runoff from the entire site enters into Pond A through a 2" curb cut located at the southwest corner of Building 1. Water then enters a 12" pipe transferring runoff from Pond A to Pond B. There is another 12" pipe that connects Pond B to Pond C. Manning's calculations for both pipes can be found on the left side of this sheet. Once a maximum water surface elevation of 5307.5 is reached, runoff begins to spill into a sidewalk culvert located at the southwest corner of the site. The Manning's calculation for the sidewalk culvert can be found on the left side of this sheet. From there water enters the storm drain system through a grate located in the median in Louisiana Boulevard.

Before Building 2 drains across the site, runoff is routed through Pond D. Once the pond has filled to a maximum water surface elevation of 5312.85, the pond discharges through a 2' curb cut into the parking lot. Pond rating curves for all ponds can be seen on the left side of this sheet. The total provided water quality pond volume for the site is 1239 cubic feet. The required volume is 1229 cubic feet. See the calculation on the left side of this sheet.

LEGAL DESCRIPTION:
PORTIONS OF LOTS 1 & 2,
BLOCK 4, TRACT 2, UNIT 3
OF NORTH ALBUQUERQUE
ACRES IN BERNALILLO
COUNTY, NEW MEXICO

ALAMEDA & LOUISIANA
COMMERCIAL DEVELOPMENT
GRADING & DRAINAGE PLAN

SHEET NUMBER:

ISSUED FOR
CONSTRUCTION

C-1